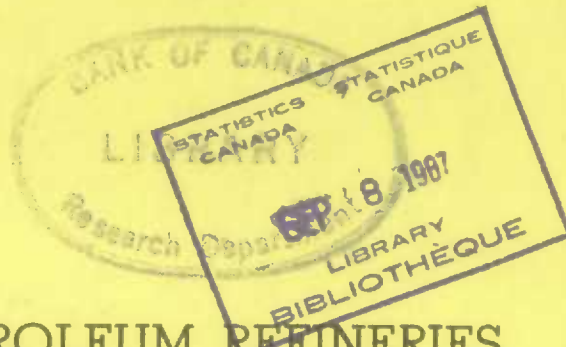


CATALOGUE No.

45-205

ANNUAL

OCT 7 1965



PETROLEUM REFINERIES

1962

CONSISTING OF:

1. Petroleum Refineries
2. Petroleum Refining
3. Manufacturers of Lubricating Oils and Greases

ANNUAL CENSUS
OF MANUFACTURES

DOMINION BUREAU OF STATISTICS



DOMINION BUREAU OF STATISTICS

Industry Division

PETROLEUM REFINERIES

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- nil or zero.
- amount too small to be expressed.
- ▯ preliminary figures.
- † revised figures.

SECTION 1. PETROLEUM REFINERIES, 1962

Data presented in this report under the heading of Petroleum Refineries 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 Petroleum Refineries in the revised Standard Industrial Classification covers establishments primarily engaged in refining crude petroleum and in producing fuel oils, lubricating oils, illuminating oils and other petroleum products. The industry also includes establishments primarily engaged in blending lubricating oils and greases which they have purchased.

It should be noted that for purposes of presentation of statistics in this report recognition is being given to Petroleum Refining and to Manufacturers of Lubricating Oils and Greases as sub-classifications within this industry group. The former industry includes establishments primarily engaged in refining crude petroleum while the latter includes establishments primarily engaged in blending lubricating oils and greases which they have purchased.

The combination of improvements in internal procedures and the introduction of the final stage of the establishment concept have produced changes which, for some industries have required adjustments to industry statistical data. (See Explanatory Notes section for further details; also text of 1961 bulletin.) For this industry, changes affecting manufacturing activity were minimal.

Note: Petroleum Refineries covered in the tables in Section 1 include the operations of two sub-classifications of industries a) Petroleum Refining (see Section 2) which includes establishments primarily engaged in refining crude petroleum and b) Manufacturers of Lubricating Oils and Greases (see Section 3) which includes establishments primarily engaged in blending lubricating oils and greases.

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 ²		Total ⁴					
		Number	Wages	Number	Salaries	Number	Salaries and wages				
	No.		\$'000		\$'000				\$'000		
1957	53	8,225	40,002	5,829	32,629	14,054	72,631	7,035	821,949	1,022,827	..
1958	55	7,931	39,252	6,149	35,327	14,080	74,579	7,573	819,940	1,016,997	192,112
1959	52	7,439	39,586	6,244	39,434	13,683	79,020	8,935	855,977	1,097,963	234,997
1960	56	7,544	41,614	6,235	40,255	13,779	81,869	9,179	857,852	1,133,861	274,283
1961	57	7,456	41,858	6,055	40,982	13,511	82,840	10,968	911,644	1,201,628	281,791

See footnotes following Table 3 A.

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

Year and province	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ³	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													
Nova Scotia	1	2,525	5,445	14,213	3,907	377,327	486,210	109,432	-	-	3,615	21,656	108,839
New Brunswick	2												
Quebec	8												
Ontario	15	2,216	4,690	12,533	2,415	287,205	376,478	85,277	-	-	3,270	19,518	85,886
Manitoba	4	304	638	1,707	456	35,693	49,042	13,386	-	-	694	3,384	13,707
Saskatchewan	6	625	1,320	3,359	941	51,351	68,993	18,138	-	-	884	5,046	18,213
Alberta	12	991	2,130	5,459	1,884	76,572	107,913	29,869	-	-	1,395	8,176	30,228
British Columbia	8	745	1,623	4,256	1,366	83,545	111,976	24,624	"	"	1,133	6,988	25,115
Northwest Territories	1												
Totals	57	7,406	15,844	41,527	10,968	911,693	1,200,612	280,726	"	"	10,991	64,768	281,989
1962													
Newfoundland	1	2,445	5,287	14,438	3,196	401,495	516,270	109,502	-	-	3,479	21,679	110,054
Nova Scotia	1												
New Brunswick	1												
Quebec	8	2,150	4,622	12,723	2,460	311,577	399,480	86,549	-	-	3,196	19,928	87,223
Ontario	16												
Manitoba	5												
Saskatchewan	6	626	1,313	3,429	1,037	59,355	76,218	16,000	-	-	869	5,045	16,086
Alberta	11	873	1,897	5,117	1,895	85,434	113,607	25,618	-	-	1,228	7,604	25,898
British Columbia	8	725	1,608	4,357	1,390	96,754	116,926	23,585	-	-	1,076	6,814	24,804
Northwest Territories	1												
Totals	58	7,124	15,385	41,918	10,444	994,007	1,274,266	273,509	"	"	10,535	64,593	276,429

See Table 2 and footnotes following Table 3 A.

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 Concept¹

Size group	Estab-lish-ments	Manufacturing activity						Total activity					
		Production and related workers ⁴			Cost of fuel and elec-tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu-facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man-hours paid	Wages					Number	With-drawals	Number	Salaries and wages	
	No.	'000			\$'000			\$'000		\$'000			
1961													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	
\$ 10,000 to \$ 24,999	4	4	8	13	4	62	141	74	11	11	9	35	74
25,000 " 49,999													
50,000 " 99,999													
100,000 " 199,999	-	-	-	-	-	-	-	-	-	-	-	-	-
200,000 " 499,999	4	18	39	74	27	627	1,048	441	-	-	54	260	487
500,000 " 999,999	3	31	54	109	12	1,306	1,824	480	-	-	66	313	512
1,000,000 " 4,999,999	14	513	1,143	2,725	848	26,311	40,117	10,933	-	-	990	4,817	11,179
5,000,000 and over	32	6,640	14,601	38,605	10,078	883,387	1,157,483	268,798	-	-	9,872	59,343	269,738
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	57	7,406	15,844	41,527	10,968	911,693	1,200,612	280,726	11	11	10,991	64,768	281,989
1962													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 10,000 to \$ 24,999	3	3	5	7	-	15	42	26	11	11	4	10	26
25,000 " 49,999													
50,000 " 99,999													
100,000 " 199,999	-	-	-	-	-	-	-	-	-	-	-	-	-
200,000 " 499,999	4	29	53	98	40	693	1,133	428	-	-	72	344	445
500,000 " 999,999	4	40	79	168	70	1,500	2,691	715	-	-	78	390	763
1,000,000 " 4,999,999	9	307	707	1,611	469	16,918	22,464	5,991	-	-	431	2,299	6,337
5,000,000 and over	35	6,743	14,537	40,028	9,860	974,827	1,247,769	266,237	-	-	9,940	61,489	268,747
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	58	7,124	15,385	41,918	10,444	994,007	1,274,266	273,509	11	11	10,535	64,593	276,429

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 Concept¹

Size group	Estab-lish-ments	Manufacturing activity						Total activity					
		Production and related workers ⁴			Cost of fuel and elec-tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu-facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man-hours paid	Wages					Number	With-drawals	Number	Salaries and wages	
	No.	'000			\$'000			\$'000		\$'000			
1961													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	
\$ 10,000 to \$ 24,999	5	12	28	44	7	562	687	116	11	11	29	111	134
25,000 " 49,999													
50,000 " 99,999													
100,000 " 199,999	5	21	46	66	28	1,103	1,678	594	-	-	62	298	653
200,000 " 499,999	6	181	389	879	99	7,291	9,653	2,014	-	-	278	1,434	2,019
500,000 " 999,999	6	239	536	1,312	586	12,379	19,177	4,625	-	-	345	1,947	4,583
1,000,000 " 4,999,999	14	1,349	2,827	7,449	2,689	136,232	172,886	35,616	-	-	2,152	11,890	36,446
5,000,000 and over	21	5,604	12,018	31,756	7,559	754,126	996,532	237,761	-	-	8,125	49,086	238,154
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	57	7,406	15,844	41,527	10,968	911,693	1,200,612	280,726	11	11	10,991	64,768	281,989
1962													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 10,000 to \$ 24,999	4	4	7	9	2	30	72	40	11	11	6	18	40
25,000 " 49,999													
50,000 " 99,999													
100,000 " 199,999	5	37	79	139	43	1,481	2,163	666	-	-	91	437	699
200,000 " 499,999	6	168	346	784	330	7,290	9,455	1,958	-	-	282	1,412	2,085
500,000 " 999,999	3	155	363	926	100	11,178	13,371	2,607	-	-	222	1,294	2,606
1,000,000 " 4,999,999	18	1,750	3,837	10,355	3,405	225,233	277,935	52,429	-	-	2,708	16,053	54,183
5,000,000 and over	18	4,991	10,726	29,638	6,503	748,414	970,245	215,582	-	-	7,191	45,228	216,556
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	58	7,124	15,385	41,918	10,444	994,007	1,274,266	273,509	11	11	10,535	64,593	276,429

See footnotes following Table 3 A.

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

Size group	Estab- lish- ments	Manufacturing activity							Total activity					
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁴		Total employees ⁷		Total value added ⁸	
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages		
No.		'000			'000			'000		'000				
1961														
Under \$10,000	}													
\$ 10,000 to \$ 24,999		4	4	7	13	4	62	141	74	11	11	9	35	74
25,000 " 49,999														
50,000 " 99,999		3	27	59	134	54	1,070	2,652	872	-	-	54	237	232
100,000 " 199,999		5	70	179	396	38	3,212	4,053	755	-	-	115	647	751
200,000 " 499,999	5	126	245	546	85	5,058	7,073	1,777	-	-	216	1,031	1,845	
500,000 " 999,999	4	175	371	894	278	8,326	12,687	3,258	-	-	227	1,184	3,249	
1,000,000 " 4,999,999	15	1,400	2,965	7,787	2,949	139,839	177,474	36,229	-	-	2,245	12,545	37,684	
5,000,000 and over	21	5,604	12,018	31,756	7,559	754,126	996,532	237,761	-	-	8,125	49,088	238,154	
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	57	7,406	15,844	41,527	10,968	911,693	1,200,612	280,726	11	11	10,991	64,768	281,989	
1962														
Under \$10,000	}													
\$ 10,000 to \$ 24,999		4	4	7	9	2	30	72	40	11	11	6	18	40
25,000 " 49,999		4	6	9	16	5	222	371	155	-	-	22	100	154
50,000 " 99,999														
100,000 " 199,999		6	50	98	190	98	1,640	2,816	740	-	-	104	488	806
200,000 " 499,999	6	168	346	784	330	7,290	9,455	1,958	-	-	282	1,412	2,085	
500,000 " 999,999	3	155	363	926	100	11,178	13,371	2,607	-	-	222	1,294	2,606	
1,000,000 " 4,999,999	18	1,750	3,837	10,355	3,405	225,233	277,935	52,429	-	-	2,708	16,053	54,183	
5,000,000 and over	18	4,991	10,726	29,638	6,503	748,414	970,245	215,582	-	-	7,191	45,228	216,556	
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	58	7,124	15,385	41,918	10,444	994,007	1,274,266	273,509	11	11	10,535	64,593	276,429	

See footnotes following Table 3A.

TABLE 1E. Principal Statistics classified by Size Groups based on Total Employed,¹³ 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 ⁴		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	3	3	6	10	2	27	64	36	11	11	4	12	36
5- 14 employees	5	16	33	67	13	952	1,407	458	-	-	43	219	524
15- 49 "	11	257	533	1,282	275	16,534	25,737	7,511	-	-	397	1,985	6,938
50- 99 "	8	406	921	2,260	850	36,956	50,234	11,683	-	-	578	3,391	12,246
100-199 "	11	1,128	2,409	6,428	2,075	142,219	188,641	46,096	-	-	1,677	10,214	46,057
200-499 "	15	3,131	6,687	17,487	5,757	406,377	535,415	126,407	-	-	4,643	26,805	127,877
500 employees and over	4	2,465	5,254	13,993	1,995	308,629	399,114	88,535	-	-	3,649	22,141	88,311
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	57	7,406	15,844	41,527	10,968	911,693	1,200,612	280,726	11	11	10,991	64,768	281,989
1962													
Under 5 employees	5	4	7	9	2	44	154	113	11	11	9	50	112
5- 14 employees	4	22	35	80	62	843	1,576	337	-	-	40	159	380
15- 49 "	12	266	604	1,348	305	17,204	23,977	7,390	-	-	410	2,179	7,847
50- 99 "	5	247	562	1,485	721	34,756	41,735	7,420	-	-	352	2,180	8,298
100-199 "	13	1,225	2,700	7,169	2,333	172,555	223,195	51,096	-	-	1,858	11,471	51,159
200-499 "	15	3,053	6,366	17,843	5,088	435,060	557,623	115,249	-	-	4,508	26,896	116,572
500 employees and over	4	2,307	5,111	13,983	1,933	333,545	426,006	91,905	-	-	3,358	21,656	92,061
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	58	7,124	15,385	41,918	10,444	994,007	1,274,266	273,509	11	11	10,535	64,593	276,429

See footnotes following Table 3A.

TABLE 1F. Principal Statistics classified by Type of Organization, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Type of organization	Estab-lish-ments	Manufacturing activity						Total activity					
		Production and related workers ⁴			Cost of fuel and elec-tricity ³	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													
Individual ownerships	-	-	-	-	-	-	-	-	-	-	-	-	
Partnerships	3	193	425	1,132	471	14,587	22,092	7,184	"	"	268	1,670	7,155
Incorporated companies	54	7,213	15,420	40,395	10,497	897,106	1,178,521	273,542	-	-	10,723	63,098	274,834
Cooperatives	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	57	7,406	15,844	41,527	10,968	911,693	1,200,612	280,726	"	"	10,991	64,768	281,989
1962													
Individual ownerships	-	-	-	-	-	-	-	-	-	-	-	-	-
Partnerships	58	7,124	15,385	41,918	10,444	994,007	1,274,266	273,509	"	"	10,535	64,593	276,429
Incorporated companies	-	-	-	-	-	-	-	-	-	-	-	-	-
Cooperatives	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	58	7,124	15,385	41,918	10,444	994,007	1,274,266	273,509	"	"	10,535	64,593	276,429

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 Concept²

Item	1961	1962
	\$'000	
Manufacturing activity:		
Value of shipments - Goods of own manufacture	1,200,612	1,274,266
Add: Closing inventory - Goods in process	21,113	23,197
Finished goods	115,939	137,052
Deduct: Opening inventory - Goods in process	20,752	21,495
Finished goods	113,525	(134,277)
Gross output - Manufacturing activity	1,203,387	1,277,960
Deduct: Cost of materials and supplies used in manufacturing activity	911,693	994,007
Cost of fuel and electricity used	10,968	(922,661)
Value added - Manufacturing activity	280,726	273,509
Non-manufacturing activities:		
Value of shipments - Goods not of own manufacture .....	..	31,643
Add: All other revenue .....	..	3,891
Closing inventory - Goods purchased for resale	3,978	3,731
Deduct: Purchases of goods for resale as such .....	..	29,451
Opening inventory - Goods not of own manufacture	3,599	3,992
Cost of all other materials and supplies used .....	..	(..)
Value added - Non-manufacturing activities	1,263	2,921
Total value added	281,989	276,429

See footnote following Table 3 A.

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

Year and province	Employees										Salaries and wages				
	Production and related workers				Adminis-trative and office ^{6,9}		Sales, and distribution ⁹		Total employees ^{7,9}		Production and related workers		Admini-strative and office	Sales, and distribution	Total salaries and wages
	Manufacturing ⁴		Other ⁹		Male	Female	Male	Female	Male	Female	Manufacturing	Other			
	Male	Female	Male	Female											
	number										\$'000				
1961															
Nova Scotia															
New Brunswick	2,516	9	..	..	..	..	..	..	..	3,467	148	14,213	..	..	..
Quebec															
Ontario	2,189	27	..	..	..	..	..	..	..	3,105	165	12,533	..	..	..
Manitoba	304	-	..	..	..	..	..	..	..	637	57	1,707	..	..	..
Saskatchewan	623	2	..	..	..	..	..	..	..	857	27	3,359	..	..	..
Alberta	937	4	..	..	..	..	..	..	..	1,334	61	5,459	..	..	..
British Columbia															
Northwest Territories	735	10	..	..	..	..	..	..	..	1,080	53	4,256	..	..	..
Totals	7,354	52	..	..	..	..	..	..	..	10,480	511	41,527	..	..	..
1962															
Newfoundland															
Nova Scotia															
New Brunswick	2,433	12	49	-	822	133	30	-	-	3,334	145	14,438	266	6,840	135
Quebec															
Ontario	2,121	29	58	-	815	131	42	-	-	3,036	160	12,723	331	6,590	284
Manitoba	305	-	5	-	105	15	232	25	-	647	40	1,854	31	831	807
Saskatchewan	625	1	10	-	188	19	26	-	-	849	20	3,429	63	1,437	115
Alberta	871	2	7	-	297	51	-	-	-	1,175	53	5,117	36	2,450	-
British Columbia															
Northwest Territories	717	8	2	-	278	38	32	1	-	1,029	47	4,357	9	2,300	148
Totals	7,072	52	131	-	2,505	387	362	26	-	10,070	465	41,918	738	20,448	1,489

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 ¹⁰	
	Male	Female
	number	
January	7,052	57
February	7,072	56
March	7,060	54
April	7,081	55
May	7,250	57
June	7,240	55
July	7,414	51
August	7,243	54
September	7,016	49
October	6,858	47
November	6,834	45
December	6,745	48
Monthly averages	7,072	52

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 The monthly detail of production workers was not collected from small establishments. Annual averages reported by these establishments were included in each month's total.

¹¹ Confidential data.

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

Note: Figures may not add due to rounding.

TABLE 4. Fuel and Electricity Used¹ in Manufacturing Activity,² 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept³

Description	Quantity	Cost
		\$'000
Bituminous coal:		
(a) From Canadian mines	-	-
(b) Imported	ton 225	3
Sub-bituminous coal (from Alberta mines only)	-	-
Anthracite coal	-	-
Lignite coal	-	-
Coke	-	-
Gasoline (including gasoline used in cars and trucks)	Imp. gal. 119,797	40
Fuel oil including kerosene or coal oil	" 976,158	90
Wood	-	-
Gas:		
(a) Liquefied petroleum gases	Imp. gal. 2,665	1
(b) Other manufactured gas	M cu. ft. 83,100	43
(c) Natural gas	" 7,568,175	1,689
Other fuel .....	...	5
Electricity purchased	kwh. 1,238,669,310	8,360
Steam purchased .....	...	214
Total fuel and electricity used .....	...	10,444

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

Province	Manufacturing				Non-manufacturing	Total inventories
	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total manufacturing	Products or materials purchased for resale	
	book value \$'000					
Opening: ³						
Newfoundland	} 20,741	8,910	45,491	75,142	2,463	77,605
Nova Scotia						
New Brunswick						
Quebec						
Ontario	25,162	8,962	31,996	66,120	796	66,916
Manitoba	1,500	135	5,759	7,394	20	7,414
Saskatchewan	1,801	802	9,875	12,478	4	12,482
Alberta	2,024	1,457	13,656	17,137	169	17,306
British Columbia	} 4,856	1,231	9,422	15,509	540	16,049
Northwest Territories						
Total ⁴	56,083	21,495	116,199	193,777	3,992	197,769

See footnotes at end of table.

TABLE 5. Industry Inventories, 1962¹ - Concluded

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						
Closing:						
Newfoundland	} 20,000	9,291	43,032	72,323	2,084	74,407
Nova Scotia						
New Brunswick						
Quebec						
Ontario	29,034	9,205	32,859	71,098	763	71,861
Manitoba	1,580	375	5,869	7,824	9	7,833
Saskatchewan	1,946	576	10,275	12,797	6	12,803
Alberta	1,893	1,610	12,842	16,345	313	16,658
British Columbia	} 5,439	2,141	13,313	20,893	555	21,448
Northwest Territories						
Totals⁴	59,892	23,197	118,191	201,280	3,731	205,011

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

² See Explanatory Notes.

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

⁴ Figures may not add due to rounding.

TABLE 6. 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	52,017	7,770	59,787	26,057	4,176	30,233	78,074	11,946	90,020
1961	27,741	4,008	31,749	26,121	4,374	30,495	53,662	8,382	62,244
1962	56,677	8,944	65,621	28,079	4,913	32,992	84,756	13,857	98,613

Source: Business Finance Division. - DBS.

Note: Includes Other Petroleum and Coal Products Industries.

SECTION 2. PETROLEUM REFINING

This industry includes establishments primarily engaged in refining crude petroleum. Establishments primarily engaged in blending lubricating oils and greases are covered in Section 3.

As of 1962, statistics for the Petroleum Refining sub-industry do not include the operations of a small refinery in New Brunswick. Details relating to the latter are now (1962) being included with the Petroleum and Gas Wells industry (S.I.C. Industry No. 063).

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	41	8,022	39,097	5,759	32,304	13,781	71,401	6,886	811,963	1,007,018	..
1958	42	7,747	38,491	6,067	34,941	13,814	73,432	7,448	809,799	1,000,386	184,548
1959	41	7,253	38,787	8,186	39,057	13,419	77,824	8,800	845,190	1,081,595	229,646
1960	44	7,357	40,774	6,148	39,823	13,505	80,597	9,043	846,909	1,117,455	268,447
1961	44	7,270	41,019	5,965	40,497	13,235	81,516	10,820	899,837	1,184,176	276,272

See footnotes following Table 3 A.

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

Year and province	Estab- lish- ments	Manufacturing activity						Total activity					
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁴	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁵		Total employees ⁵		Total value added ⁴
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000		\$'000				\$'000		\$'000		
1961													
Nova Scotia	1												
New Brunswick	2	2,480	5,343	14,001	3,874	373,470	479,866	107,022	-	-	3,547	21,344	106,399
Quebec	6												
Ontario	7	2,078	4,418	11,920	2,305	279,409	368,041	82,686	-	-	3,021	18,268	83,225
Manitoba	3	302	632	1,697	452	35,531	46,810	13,312	-	-	685	3,341	13,589
Saskatchewan	6	625	1,320	3,359	941	51,351	68,993	18,138	-	-	884	5,046	18,213
Alberta	11	990	2,128	5,455	1,881	76,537	107,836	29,830	-	-	1,390	8,154	30,190
British-Columbia and Northwest Territories	8	745	1,623	4,256	1,368	83,538	111,962	24,815	-	-	1,133	6,988	25,107
Totals	44	7,220	15,462	40,687	10,820	899,836	1,183,508	275,604	-	-	10,660	63,140	276,723
1962													
Newfoundland	1												
Nova Scotia	1	2,397	5,182	14,217	3,163	397,949	510,577	107,378	-	-	3,405	21,343	107,832
New Brunswick	1												
Quebec	8												
Ontario	7	2,013	4,337	12,079	2,334	303,142	384,318	79,418	-	-	2,942	18,559	79,983
Manitoba	3	299	650	1,841	463	39,203	51,513	12,190	-	-	672	3,476	12,298
Saskatchewan	6	626	1,313	3,429	1,037	59,355	76,218	16,000	-	-	869	5,045	16,086
Alberta	10	872	1,895	5,113	1,893	85,409	113,553	25,592	-	-	1,223	7,582	25,872
British-Columbia and Northwest Territories	7	723	1,603	4,351	1,388	96,736	116,889	23,567	-	-	1,073	6,803	24,787
Totals	42	6,930	14,960	41,030	10,278	981,793	1,253,068	264,146	-	-	10,164	62,808	268,857

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 ³	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁵		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
No.	'000							'000		'000			
1961													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	
\$ 10,000 to \$ 24,999	-	-	-	-	-	-	-	-	-	-	-	-	
25,000 " 49,999	-	-	-	-	-	-	-	-	-	-	-	-	
50,000 " 99,999	-	-	-	-	-	-	-	-	-	-	-	-	
100,000 " 199,999	14	500	1,117	2,671	840	25,166	38,692	10,740	-	-	948	4,628	10,940
200,000 " 499,999													
500,000 " 999,999													
1,000,000 " 4,999,999													
5,000,000 and over	30	6,720	14,345	38,016	9,981	874,670	1,144,816	264,864	-	-	9,712	58,512	265,783
Head offices, sales offices and auxiliary units
Totals	44	7,220	15,462	40,687	10,820	899,836	1,183,508	275,604	-	-	10,660	63,140	276,723
1962													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	
\$ 10,000 to \$ 24,999	-	-	-	-	-	-	-	-	-	-	-	-	
25,000 " 49,999	-	-	-	-	-	-	-	-	-	-	-	-	
50,000 " 99,999	-	-	-	-	-	-	-	-	-	-	-	-	
100,000 " 199,999	9	305	693	1,593	513	15,905	21,588	5,632	-	-	402	2,155	5,954
200,000 " 499,999													
500,000 " 999,999													
1,000,000 " 4,999,999													
5,000,000 and over	33	6,625	14,287	39,437	9,765	965,888	1,231,481	258,514	-	-	9,782	60,653	260,903
Head offices, sales offices and auxiliary units
Totals	42	6,930	14,980	41,030	10,278	981,793	1,253,068	264,146	-	-	10,184	62,808	266,857

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 ³	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁵		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
No.	'000							'000		'000			
1961													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	
\$ 10,000 to \$ 24,999	-	-	-	-	-	-	-	-	-	-	-	-	
25,000 " 49,999	-	-	-	-	-	-	-	-	-	-	-	-	
50,000 " 99,999	5	148	336	760	83	5,817	7,578	1,536	-	-	198	1,045	1,495
100,000 " 199,999													
200,000 " 499,999													
500,000 " 999,999													
1,000,000 " 4,999,999	12	1,229	2,572	6,860	2,592	127,515	160,220	31,682	-	-	1,992	11,060	32,491
5,000,000 and over	21	5,604	12,018	31,756	7,559	754,126	996,532	237,761	-	-	8,125	49,088	238,154
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	44	7,220	15,462	40,687	10,820	899,836	1,183,508	275,604	-	-	10,660	63,140	276,723
1962													
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-	
\$ 10,000 to \$ 24,999	-	-	-	-	-	-	-	-	-	-	-	-	
25,000 " 49,999	-	-	-	-	-	-	-	-	-	-	-	-	
50,000 " 99,999	5	152	304	702	365	5,907	7,805	1,251	-	-	221	1,069	1,357
100,000 " 199,999													
200,000 " 499,999													
500,000 " 999,999													
1,000,000 " 4,999,999	17	1,712	3,758	10,174	3,377	222,181	272,874	50,417	-	-	2,659	15,818	52,080
5,000,000 and over	17	4,911	10,555	29,227	6,436	742,527	959,018	209,871	-	-	7,082	44,627	210,314
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	42	6,930	14,980	41,030	10,278	981,793	1,253,068	264,146	-	-	10,184	62,808	266,857

See footnotes following Table 3A.

TABLE 1D. Principal Statistics classified by Size Groups based on Total Value Added, 1961 and 1962

Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Size group	Establishments	Manufacturing activity						Total activity					
		Production and related workers ⁴			Cost of fuel and electricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manufacture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
No.	'000			'000				'000		'000			
1961													
Under \$10,000	—	—	—	—	—	—	—	—	—	—	—	—	
\$ 10,000 to \$ 24,999	—	—	—	—	—	—	—	—	—	—	—	—	
25,000 " 49,999	3	70	177	420	63	2,694	4,512	1,005	—	—	89	518	
50,000 " 99,999													
100,000 " 199,999													
200,000 " 499,999	3	91	187	419	68	3,568	4,969	1,285	—	—	134	634	1,306
500,000 " 999,999	4	175	371	894	278	8,326	12,687	3,258	—	—	227	1,184	3,249
1,000,000 " 4,999,999	13	1,260	2,710	7,198	2,852	131,122	164,807	32,295	—	—	2,085	11,715	33,730
5,000,000 and over	21	5,604	12,018	31,756	7,559	754,128	996,532	237,761	—	—	8,125	49,088	238,154
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	44	7,220	15,462	40,687	10,820	899,836	1,183,508	275,604	—	—	10,660	63,140	276,723
1962													
Under \$10,000	—	—	—	—	—	—	—	—	—	—	—	—	
\$ 10,000 to \$ 24,999	—	—	—	—	—	—	—	—	—	—	—	—	
25,000 " 49,999	5	152	304	702	365	5,907	7,805	1,251	—	—	221	1,069	
50,000 " 99,999													
100,000 " 199,999													
200,000 " 499,999	3	155	363	926	100	11,178	13,371	2,607	—	—	222	1,294	2,606
500,000 " 999,999	17	1,712	3,758	10,174	3,377	222,181	272,874	50,417	—	—	2,659	15,818	52,080
1,000,000 " 4,999,999	17	4,911	10,555	29,227	6,436	742,527	959,018	209,871	—	—	7,082	44,627	210,814
5,000,000 and over	...	...	...	...	...	...	...	...	...	...	...	...	...
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	42	6,930	14,980	41,030	10,278	981,793	1,253,068	264,146	—	—	10,184	62,808	266,857

See footnotes following Table 3A.

TABLE 1E. Principal Statistics classified by Size Groups based on Total Employed,¹⁰ 1961 and 1962

Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Size group	Establishments	Manufacturing activity						Total activity					
		Production and related workers ⁴			Cost of fuel and electricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manufacture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
No.	'000			'000				'000		'000			
1961													
Under 5 employees	7	173	365	928	209	11,016	16,972	4,448	—	—	225	1,183	
5 - 14 employees													
15 - 49 "													
50 - 99 "	8	408	921	2,260	590	33,349	45,647	11,070	—	—	578	3,391	
100 - 199 "	10	1,045	2,235	6,020	2,296	143,740	191,342	46,824	—	—	1,585	9,619	
200 - 499 "	15	3,131	6,687	17,487	5,729	403,102	530,432	124,727	—	—	4,643	26,805	
500 employees and over	4	2,465	5,254	13,993	1,995	308,629	399,114	88,535	—	—	3,649	22,141	
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...
Totals	44	7,220	15,462	40,687	10,820	899,836	1,183,508	275,604	—	—	10,660	63,140	
1962													
Under 5 employees	6	178	411	960	270	11,765	15,736	4,187	—	—	217	1,204	
5 - 14 employees													
15 - 49 "													
50 - 99 "	5	247	562	1,485	721	34,756	41,735	7,420	—	—	352	2,180	
100 - 199 "	12	1,145	2,529	6,758	2,266	166,668	211,968	45,385	—	—	1,749	10,871	
200 - 499 "	15	3,053	6,366	17,843	5,088	435,060	557,823	115,249	—	—	4,506	26,896	
500 employees and over	4	2,307	5,111	13,983	1,933	333,545	426,006	91,905	—	—	3,358	21,656	
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...
Totals	42	6,930	14,980	41,030	10,278	981,793	1,253,068	264,146	—	—	10,184	62,808	

See footnotes following Table 3A.

TABLE 1F. Principal Statistics classified by Type of Organization, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Type of organization	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 ⁸		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													
Individual ownerships	-	-	-	-	-	-	-	-	-	-	-	-	
Partnerships	2	7,220	15,462	40,687	10,820	899,836	1,183,508	275,604	-	-	10,660	63,140	276,723
Incorporated companies	42												
Cooperatives	-	-	-	-	-	-	-	-	-	-	-	-	
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...
Totals	44	7,220	15,462	40,687	10,820	899,836	1,183,508	275,604	-	-	10,660	63,140	276,723
1962													
Individual ownerships	-	-	-	-	-	-	-	-	-	-	-	-	
Partnerships	-	6,930	14,980	41,030	10,278	981,793	1,253,068	264,146	-	-	10,184	62,808	266,857
Incorporated companies	42												
Cooperatives	-	-	-	-	-	-	-	-	-	-	-	-	
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...
Totals	42	6,930	14,980	41,030	10,278	981,793	1,253,068	264,146	-	-	10,184	62,808	266,857

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 Concept²

Item	1961	1962
	\$'000	
Manufacturing activity:		
Value of shipments - Goods of own manufacture	1,183,508	1,253,068
Add: Closing inventory - Goods in process	18,768	20,282
Finished goods	115,231	133,999
Deduct: Opening inventory - Goods in process	18,404	19,146
Finished goods	112,843	(131,247)
Gross output - Manufacturing activity	1,186,260	1,256,216
Deduct: Cost of materials and supplies used in manufacturing activity	899,836	981,793
Cost of fuel and electricity used	10,820	(910,656)
Value added - Manufacturing activity	275,604	264,146
Non-manufacturing activities:		
Value of shipments - Goods not of own manufacture .....	..	30,776
Add: All other revenue .....	..	3,887
Closing inventory - Goods purchased for resale	3,893	3,650
Deduct: Purchases of goods for resale as such .....	..	28,822
Opening inventory - Goods not of own manufacture	3,492	3,907
Cost of all other materials and supplies used .....	..	(..)
Value added - Non-manufacturing activities	1,119	2,710
Total value added	276,723	266,857

See footnote following Table 3 A.

TABLE 3. Employment and Payroll, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Year and province	Employees										Salaries and wages						
	Production and related workers				Adminis- trative and office ^{4,5}		Sales, and distribution ⁶		Total employees ^{7,9}		Production and related workers	Admin- istrative and office	Sales, and distri- bution	Total salaries and wages			
	Manufacturing ⁴		Other ⁵		Male	Female	Male	Female	Male	Female					Manufacturing	Other	
	Male	Female	Male	Female							number										$' 000
1961																	
Nova Scotia																	
New Brunswick																	
Quebec	2,471	9	..	..	..	..	..	..	3,403	144	14,001	..	..	..	21,345
Ontario	2,051	27	..	..	..	..	..	..	2,876	145	11,920	..	..	..	18,268
Manitoba	302	—	..	..	..	..	..	..	629	56	1,697	..	..	..	3,341
Saskatchewan	623	2	..	..	..	..	..	..	857	27	3,359	..	..	..	5,046
Alberta	986	4	..	..	..	..	..	..	1,331	59	5,455	..	..	..	8,154
British Columbia, Yukon and Northwest Territories	735	10	..	..	..	..	..	..	1,080	53	4,256	..	..	..	6,988
Totals	7,168	52	..	..	..	..	..	..	10,176	484	40,687	..	..	..	63,140
1962																	
Newfoundland																	
Nova Scotia																	
New Brunswick																	
Quebec	2,385	12	49	—	811	128	20	—	3,265	140	14,217	266	6,768	94	21,344		
Ontario	1,984	29	55	—	761	113	—	—	2,800	142	12,079	328	6,153	—	18,559		
Manitoba	299	—	5	—	104	13	226	25	634	38	1,841	31	820	783	3,476		
Saskatchewan	625	1	10	—	188	19	26	—	849	20	3,429	63	1,437	115	5,045		
Alberta	870	2	7	—	295	49	—	—	1,172	51	5,113	38	2,432	—	7,582		
British Columbia, Yukon and Northwest Territories	715	8	2	—	277	38	32	1	1,026	47	4,351	9	2,295	148	6,803		
Totals	6,878	52	128	—	2,436	360	304	26	9,746	438	41,030	735	19,904	1,140	62,808		

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 Concept²

Month	Establishments reporting monthly detail	
	Male	Female
	number	
January	6,862	57
February	6,884	56
March	6,868	54
April	6,887	55
May	7,050	57
June	7,039	55
July	7,209	51
August	7,043	54
September	6,825	49
October	6,672	47
November	6,646	45
December	6,561	48
Monthly averages	6,878	52

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 Includes paid employees, working owners, but excludes unpaid family workers.

Note: Figures may not add due to rounding.

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

Description	Quantity	Cost
		\$'000
1. Materials used:		
Crude oil in its natural state, from Canadian wells	bbl. 168,583,068	495,960
Absorption gasoline, etc., from Canadian wells (run to stills)	" 6,439,620	18,431
Crude oil, in its natural state, imported, (run to stills):		
From United States	" 1,314	3
From South America	" 91,736,194	258,204
From other countries	" 41,718,989	113,730
Crude, oil not in its natural state (run to stills)	" 624,368	3,652
Benzol	" 44,914	507
Alkylate and cumene	" 603,177	4,768
Phenol	lb. 271,280	38
Sulphuric acid, 100%	" 25,686,582	354
Ammonia, anhydrous	" 603,048	65
Sulphur	" 371,960	21
Caustic soda	" 23,290,807	893
Soda ash	" 1,110,009	37
Litharge	" 212,052	29
Fuller's earth, bentonite and other clays	ton 783	42
Tetraethyl fluid	lb. 50,396,064	17,982
Dyes for gasoline	" ..	119
Inhibitor	" ..	975
Fluid catalytic cracking unit catalysts (Aerocat, Naicat, Filtrol 100, FCCU catalysts, etc.)	" ..	4,873
Reforming or polymerization catalysts	" ..	1,293
Additives	" ..	3,047
All other materials and components used	" ..	30,347
2. Containers and other packaging materials and supplies used		
		8,610
3. Operating, maintenance and repair supplies used (excluding fuel)		
		13,547
4. Amount paid out to others for work done on materials owned by establishments		
		4,265
Total		981,793

¹ See Explanatory Notes.

TABLE 5. Fuel and Electricity Used¹ in Manufacturing Activity,² 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept³

Description	Quantity	Cost
		\$'000
Bituminous coal:		
(a) From Canadian mines	—	—
(b) Imported	—	—
Sub-bituminous coal (from Alberta mines only)		
	—	—
Anthracite coal		
	—	—
Lignite coal		
	—	—
Coke		
	—	—
Gasoline (including gasoline used in cars and trucks)	Imp. gal. 44,748	15
Fuel oil including kerosene or coal oil	" 18,037	6
Wood		
	—	—
Gas:		
(a) Liquefied petroleum gases	—	—
(b) Other manufactured gas	M cu. ft. 83,100	43
(c) Natural gas	" 7,567,206	1,688
Other fuel		
	—	—
Electricity purchased	kwh. 1,235,186,948	8,314
Steam purchased .....	...	211
Total fuel and electricity used .....	...	10,278

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 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 made including amounts for own use	Quantity shipped	Value of shipments
	barrels		\$'000
1. Products:			
Gasoline (excluding imported casing head-blended):			
Aviation gasoline	1,539,803	1,559,368	11,069
Motor gasoline	111,032,529	112,138,926	574,046
Naphtha specialties	658,104	663,199	3,758
Aviation turbine fuel	6,816,966	6,788,388	24,463
Kerosene, stove oil (No. 1 fuel oil) and tractor fuel	17,899,523	17,672,440	80,923
Diesel fuel	31,617,258	30,487,787	123,406
Light fuel oils (Nos. 2 and 3)	52,598,223	53,618,312	217,933
Heavy fuel oils (Nos. 4, 5, and 6)	56,420,606	43,974,229	96,123
Lubricating oil and grease	2,600,228	2,654,301	40,150
Asphalt	9,641,545	9,366,011	27,026
Petroleum coke .....	..	969,526	1,871
Petrochemical feed stocks	6,197,653	6,122,412	17,427
Liquefied petroleum gases	5,146,870	4,737,525	12,929
All other products .....	...	...	25,774
2. Amount received in payment for work done on materials and products owned by others			758
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above			(4,587)
Net adjustment for establishments receiving progress payments .....			...
Total adjusted value of shipments and work done			1,253,068

¹ See Explanatory Notes.

TABLE 7. Stocks on Hand at the Refineries at the End of December 31, 1962

	Quantity
	barrels
Crude oil and naphtha, in its natural state, from Canadian wells	4,866,355
Absorption gasoline, etc., from Canadian wells	82,116
Crude oil, imported:	
In its natural state	5,470,012
Not in its natural state	410,090
Total crude	10,828,573
Naphtha specialties	172,250
Aviation gasoline	542,875
Motor gasoline	10,414,871
Aviation turbine fuel	721,873
Kerosene, stove oil (No. 1 fuel oil) and tractor fuel	2,121,918
Diesel fuel	2,966,075
Light fuel oils (Nos. 2 and 3)	8,152,781
Heavy fuel oils (Nos. 4, 5, and 6)	5,369,896
Lubricating oils and greases	657,365
Liquefied petroleum gases (propane, butane, etc.)	166,312
Petroleum coke	75,450

TABLE 8. Refinery Production¹ of Gasoline, 1953-62

Year	Motor gasoline	Aviation gasoline	Total
1953	63,753,525	601,755	64,355,280
1954	68,535,671	493,790	69,029,461
1955	76,674,069	735,706	77,409,775
1956	85,846,938	758,826	86,605,764
1957	86,290,914	593,253	86,884,167
1958	89,329,101	675,870	90,004,971
1959	95,519,002	677,963	96,196,965
1960	101,397,928	1,280,440	102,678,368
1961	106,628,143	1,137,454	107,765,597
1962	111,032,529	1,539,803	112,572,332

¹ Includes production made for own use.

TABLE 9. Number and Total Capacity of Petroleum Refineries in Operation, December 31, 1959-62

Province	1959		1960		1961		1962	
	Number	Capacity, in barrels of crude per day	Number	Capacity, in barrels of crude per day	Number	Capacity, in barrels of crude per day	Number	Capacity, in barrels of crude per day
Newfoundland	—	—	—	—	—	—	1	8,500
Nova Scotia	1	45,000	1	45,000	1	45,000	1	50,000
New Brunswick	1	300	2	41,800	2	41,800	1	41,500
Quebec	5	268,800	6	292,000	6	303,000	6	303,000
Ontario	7	264,850	7	265,900	7	267,900	7	277,900
Manitoba	3	33,200	3	33,200	3	38,100	3	38,100
Saskatchewan	6	64,000	6	63,950	6	70,390	6	70,800
Alberta	10	90,200	11	92,200	11	91,620	10	93,970
British Columbia	7	100,600	7	99,500	7	101,000	6	97,500
Northwest Territories	1	1,350	1	1,350	1	1,500	1	1,500
Canada	41	868,300	44	934,900	44	960,310	42	982,770

Note: 1 barrel = 35 Imperial gallons.

TABLE 10. Consumption of Crude Oil in Petroleum Refineries, showing Canadian and Imported Separately, 1953-62

Year	Canadian ¹	Imported	Total
1953	71,655,079	82,759,842	154,414,921
1954	93,237,497	77,797,198	171,034,695
1955	108,336,326	86,719,894	195,056,220
1956	125,576,963	105,738,257	231,315,220
1957	128,017,186	110,836,969	238,854,155
1958	133,547,168	106,458,959	240,006,127
1959	152,143,029	115,599,492	267,742,521
1960	152,033,834	125,851,879	277,885,713
1961	162,601,125	132,469,105	295,070,230
1962	175,022,688	134,080,865	309,103,553

¹ Includes the crude naphtha and absorption gasoline from Canadian wells which were run to refinery stills.

List of Establishments, 1962

Name	Location
Newfoundland:	
Golden Eagle Refining Co. of Canada Ltd.	St. John's
Nova Scotia:	
Imperial Oil Limited	Imperoyal
New Brunswick:	
Irving Refining Limited	Saint John
Quebec:	
B. P. Refinery Canada Limited	Ville D'Anjou
British American Oil Co. Limited	Montreal East
Imperial Oil Limited	Montreal East
Shell Canada Ltd.	Montreal East
Texaco Canada Limited	Montreal East
Canadian Petrofina Ltd.	Pointe Aux Trembles
Ontario:	
British American Oil Co. Limited	Clarkson
Canadian Husky Oil Ltd.	Fort William
Canadian Oil Companies Limited	Corunna
Cities Services Refining (Canada) Limited	Oakville
Imperial Oil Limited	Sarnia
Sun Oil Company Limited	Sarnia
Texaco Canada Limited (Regent Refining Div.)	Port Credit
Manitoba:	
Anglo-Canadian Oils Ltd.	Brandon
Imperial Oil Limited	East St. Paul
Shell Canada Limited	St. Boniface
Saskatchewan:	
British American Oil Co. Limited	Moose Jaw
Canadian Husky Oil Ltd.	Moose Jaw
Consumers' Co-operative Refineries Limited	Regina
Imperial Oil Limited	Regina
Northern Petroleum Corporation Ltd.	Kamsack
Royalite Hi-Way Ltd.	Saskatoon
Alberta:	
British American Oil Co. Limited	Calgary, Edmonton
Canadian Husky Oil Ltd.	Lloydminster
Canadian Kodiak Refineries Ltd.	Lloydminster
Canadian Oil Companies Limited	Bowden
Imperial Oil Limited	Calgary, Edmonton
Shell Canada Limited	Grande Prairie
Texaco Canada Limited	Edmonton
Wainwright Producers and Refiners Ltd.	Calgary
British Columbia:	
British American Oil Co., Limited	Port Moody
Imperial Oil Limited	Ioco
Royalite Products Ltd.	Kamloops
Shell Canada Ltd.	North Burnaby
Standard Oil Company of British Columbia Ltd.	North Burnaby
Pacific Petroleum Ltd.	Dawson Creek
Northwest Territories:	
Imperial Oil Limited	Norman Wells

SECTION 3. MANUFACTURERS OF LUBRICATING OILS AND GREASES

This industry includes establishments primarily engaged in blending lubricating oils and greases.

Establishments primarily engaged in refining crude petroleum are covered in Section 2.

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	12	203	905	70	326	273	1,230	150	9,986	15,808	..
1958	13	184	761	82	386	266	1,148	124	10,141	16,611	7,564
1959	11	186	820	78	377	264	1,197	135	10,786	16,368	5,351
1960	12	187	840	87	432	274	1,271	136	10,943	16,406	5,837
1961	13	186	839	90	485	276	1,324	148	11,807	17,452	5,570

See footnotes following Table 3 A.

TABLE 1 A. Principal Statistics - Manufacturing Activity and Total Activity¹ 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 ¹	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	Withdrawals	Number	Salaries and wages	
	No.		'000		\$'000				\$'000		\$'000		
1961													
Ontario	8	138	273	613	109	7,796	10,437	2,590	-	-	249	1,250	2,661
Quebec	2	48	109	226	39	4,061	6,668	2,532	"	"	82	377	2,605
Manitoba	1												
Alberta	1												
British Columbia	1												
Totals	13	186	382	839	148	11,857	17,105	5,122	"	"	331	1,628	5,267
1962													
Ontario	9	137	285	645	126	8,436	15,162	7,130	-	-	254	1,369	7,240
Quebec	2	57	121	244	39	3,778	6,036	15,233	"	"	97	416	2,333
Manitoba	2												
Alberta	1												
British Columbia	2												
Totals	16	194	405	889	166	12,214	21,197	9,364	"	"	351	1,785	9,573

See Table 2 and footnotes following Table 3 A.

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 Concept¹

Size group	Estab- lish- ments	Manufacturing activity							Total activity					
		Production and related workers ⁴			Cost of fuel and electricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manufacture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸	
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages		
No.	'000	\$'000						\$'000	\$'000					
1961														
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-		
\$ 10,000 to \$ 24,999	3	2	3	6	3	47	111	59	"	"	7	28	59	
25,000 "		3	31	54	109	12	1,306	1,824	490	-	-	66	313	512
50,000 "		3	135	286	650	106	9,877	14,122	4,142	-	-	204	1,027	4,208
100,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-	
200,000 "	4	18	39	74	27	627	1,043	441	-	-	54	260	487	
500,000 "	3	31	54	109	12	1,306	1,824	490	-	-	66	313	512	
1,000,000 " 4,999,999	3	135	286	650	106	9,877	14,122	4,142	-	-	204	1,027	4,208	
5,000,000 and over		3	135	286	650	106	9,877	14,122	4,142	-	-	204	1,027	4,208
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	13	186	382	839	148	11,857	17,105	5,122	"	"	331	1,628	5,267	
1962														
Under \$10,000	3	3	5	7	-	15	42	26	"	"	4	10	26	
\$ 10,000 to \$ 24,999	3	2	4	7	3	54	166	112	-	-	10	62	111	
25,000 "		3	2	4	7	3	54	166	112	-	-	10	62	111
50,000 "		3	2	4	7	3	54	166	112	-	-	10	62	111
100,000 "	-	-	-	-	-	-	-	-	-	-	-	-	-	
200,000 "	4	29	53	99	40	693	1,133	428	-	-	72	344	445	
500,000 "	3	27	60	118	15	1,341	2,038	642	-	-	65	339	656	
1,000,000 " 4,999,999	3	133	293	661	107	10,110	17,819	8,155	-	-	200	1,031	8,334	
5,000,000 and over		3	133	293	661	107	10,110	17,819	8,155	-	-	200	1,031	8,334
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	16	194	405	889	166	12,214	21,197	9,364	"	"	351	1,785	9,573	

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 Concept¹

Size group	Estab- lish- ments	Manufacturing activity							Total activity					
		Production and related workers ⁴			Cost of fuel and electricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manufacture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸	
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages		
No.	'000	\$'000						\$'000	\$'000					
1961														
Under \$10,000	4	10	23	37	5	547	657	101	"	"	27	103	119	
\$ 10,000 to \$ 24,999	5	21	46	96	28	1,103	1,673	594	-	-	62	298	653	
25,000 "		5	21	46	96	28	1,103	1,673	594	-	-	62	298	653
50,000 "		5	21	46	96	28	1,103	1,673	594	-	-	62	298	653
100,000 "	4	155	313	716	114	10,207	14,771	4,427	-	-	242	1,227	4,494	
200,000 "	4	155	313	716	114	10,207	14,771	4,427	-	-	242	1,227	4,494	
500,000 "	4	155	313	716	114	10,207	14,771	4,427	-	-	242	1,227	4,494	
1,000,000 " 4,999,999	-	-	-	-	-	-	-	-	-	-	-	-	-	
5,000,000 and over		-	-	-	-	-	-	-	-	-	-	-	-	
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	13	186	382	839	148	11,857	17,105	5,122	"	"	331	1,628	5,267	
1962														
Under \$10,000	4	4	7	9	2	30	72	40	"	"	6	18	40	
\$ 10,000 to \$ 24,999	3	6	9	16	5	222	371	155	-	-	22	101	154	
25,000 "		3	6	9	16	5	222	371	155	-	-	22	101	154
50,000 "		3	6	9	16	5	222	371	155	-	-	22	101	154
100,000 "	5	37	79	139	43	1,481	2,163	666	-	-	91	437	699	
200,000 "	5	37	79	139	43	1,481	2,163	666	-	-	91	437	699	
500,000 "	5	37	79	139	43	1,481	2,163	666	-	-	91	437	699	
1,000,000 " 4,999,999	4	147	310	724	116	10,490	18,592	8,503	-	-	232	1,230	9,679	
5,000,000 and over		4	147	310	724	116	10,490	18,592	8,503	-	-	232	1,230	9,679
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	16	194	405	889	166	12,214	21,197	9,364	"	"	351	1,785	9,573	

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 Concept²

Size group	Estab-lish-ments	Manufacturing activity							Total activity						
		Production and related workers ⁴			Cost of fuel and elec-tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu-facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸		
		Number	Man-hours paid	Wages					Number	With-drawals	Number	Salaries and wages			
No.		'000			\$'000				\$'000		\$'000				
1961															
Under \$10,000	}														
\$ 10,000 to \$ 24,999		5	16	34	61	9	672	860	178	"	"	36	157	196	
25,000 " 49,999		4	15	35	62	24	978	1,474	518	-	-	53	244	577	
50,000 " 99,999			4	155	313	716	114	10,207	14,771	4,427	-	-	242	1,227	4,494
100,000 " 199,999				4	155	313	716	114	10,207	14,771	4,427	-	-	242	1,227	4,494
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 .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	13	186	382	839	148	11,857	17,105	5,122	"	"	331	1,628	5,267		
1962															
Under \$10,000	}														
\$ 10,000 to \$ 24,999		4	4	7	9	2	30	72	40	"	"	6	18	40	
25,000 " 49,999		3	6	9	16	5	222	371	155	-	-	22	101	154	
50,000 " 99,999			5	37	79	139	43	1,481	2,163	666	-	-	91	437	699
100,000 " 199,999				5	37	79	139	43	1,481	2,163	666	-	-	91	437	699
200,000 " 499,999	4	147	310	724	116	10,480	18,592	8,503	-	-	232	1,230	8,679		
500,000 " 999,999		4	147	310	724	116	10,480	18,592	8,503	-	-	232	1,230	8,679	
1,000,000 " 4,999,999															
5,000,000 and over															
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	16	194	405	889	166	12,214	21,197	9,364	"	"	351	1,785	9,573		

See footnotes following Table 3 A.

TABLE 1 E. Principal Statistics classified by Size Groups based on Total Employed,¹² 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	}													
5 - 14 employees		7	17	34	69	14	964	1,441	479	"	"	45	224	544
15 - 49 "		6	169	348	770	134	10,893	15,663	4,644	-	-	286	1,404	4,722
50 - 99 "			-	-	-	-	-	-	-	-	-	-	-	-
100 - 199 "				-	-	-	-	-	-	-	-	-	-	-
200 - 499 "														
500 employees and over														
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...
Totals	13	186	382	839	148	11,857	17,105	5,122	"	"	331	1,628	5,267	
1962														
Under 5 employees	5	4	7	9	2	44	154	113	"	"	9	50	112	
5 - 14 employees	3	9	16	29	7	684	922	263	-	-	27	108	273	
15 - 49 "	8	181	382	850	157	11,485	20,121	8,988	-	-	315	1,627	9,188	
50 - 99 "		-	-	-	-	-	-	-	-	-	-	-	-	
100 - 199 "			-	-	-	-	-	-	-	-	-	-	-	
200 - 499 "														
500 employees and over														
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...
Totals	16	194	405	889	166	12,214	21,197	9,364	"	"	351	1,785	9,573	

See footnotes following Table 3 A.

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

Basis: Revised Standard Industrial Classification and New Establishment Concept²

Type of organization	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 ⁴		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													
Individual ownerships	} 13	186	382	839	148	11,857	17,105	5,122	11	11	331	1,628	5,267
Partnerships													
Incorporated companies													
Cooperatives													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	13	186	382	839	148	11,857	17,105	5,122	11	11	331	1,628	5,267
1962													
Individual ownerships	} 16	194	405	889	166	12,214	21,197	9,364	11	11	351	1,785	9,573
Partnerships													
Incorporated companies													
Cooperatives													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	16	194	405	889	166	12,214	21,197	9,364	11	11	351	1,785	9,573

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 Concept²

Item	1961	1962
	\$'000	
Manufacturing activity:		
Value of shipments - Goods of own manufacture	17,105	21,197
Add: Closing inventory - Goods in process	2,345	2,915
Finished goods	708	706
Deduct: Opening inventory - Goods in process	2,348	2,349
Finished goods	682	726
Gross output - Manufacturing activity	17,128	21,743
Deduct: Cost of materials and supplies used in manufacturing activity	11,857	12,214
Cost of fuel and electricity used	148	166
Value added - Manufacturing activity	5,122	9,364
Non-manufacturing activities:		
Value of shipments - Goods not of own manufacture .....	..	867
Add: All other revenue .....	..	3
Closing inventory - Goods purchased for resale	85	80
Deduct: Purchases of goods for resale as such .....	..	629
Opening inventory - Goods not of own manufacture	107	85
Cost of all other materials and supplies used .....	..	27
Value added - Non-manufacturing activities	145	209
Total value added	5,267	9,573

See footnote following Table 3 A.

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

Year and province	Employees										Salaries and wages				
	Production and related workers				Adminis- trative and office ^{6,9}		Sales, and distribution ⁹		Total employees ^{7,9}		Production and related workers		Adminis- trative and office	Sales, and distri- bution	Total salaries and wages
	Manufacturing ⁴		Other ⁹		Male	Female	Male	Female	Male	Female	Manufacturing	Other			
	Male	Female	Male	Female											
1961	number										\$'000				
Ontario	138	-	..	..	..	..	..	..	229	20	613	..	..	..	1,250
Quebec	} 48	-	..	..	..	..	..	..	75	7	226	..	..	..	377
Manitoba .....		..	..	..	..	..	..	..	..	..	..	..	..	..	..
Alberta .....		..	..	..	..	..	..	..	..	..	..	..	..	..	..
British Columbia .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	186	-	..	..	..	..	..	..	304	27	839	..	..	..	1,628
1962	number										\$'000				
Ontario	137	-	3	-	54	18	42	-	236	18	645	3	437	284	1,369
Quebec	} 57	-	-	-	15	9	16	-	88	9	244	-	107	65	416
Manitoba .....		..	..	..	..	..	..	..	..	..	..	..	..	..	..
Alberta .....		..	..	..	..	..	..	..	..	..	..	..	..	..	..
British Columbia .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	194	-	3	-	69	27	58	-	324	27	889	3	544	349	1,785

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 Concept²

Month	Establishments reporting monthly detail ¹⁰	
	Male	Female ¹¹
	number	
January	190	-
February	188	-
March	192	-
April	194	-
May	200	-
June	201	-
July	205	-
August	200	-
September	191	-
October	186	-
November	188	-
December	184	-
Monthly averages	194	-

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 The monthly detail of production workers was not collected from small establishments. Annual averages reported by these establishments were included in each month's total.

¹¹ Confidential data.

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

Note: Figures may not add due to rounding.

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

Description	Quantity	Cost
		\$ '000
1. Materials used:		
Oils for blending:		
Canadian	Imp. gal. 8,451,714	2,792
Imported	" 10,515,641	3,415
Grease for blending:		
Imported	lb. 464,261	60
Additives for lube oils and greases .....	..	1,656
All other materials and components used ² .....	...	1,220
2. Containers and other packaging materials and supplies used		2,719
3. Operating, maintenance and repair supplies used (excluding fuel)		262
4. Amount paid out to others for work done on materials owned by establishments		90
Total		12,214

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 \$169,000.

TABLE 5. Fuel and Electricity Used¹ in Manufacturing Activity,² 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept³

Description	Quantity	Cost
		\$ '000
Bituminous Coal:		
(a) From Canadian mines	—	—
(b) Imported	ton 225	3
Sub-bituminous coal (from Alberta mines only)	—	—
Anthracite coal	—	—
Lignite coal	—	—
Coke	—	—
Gasoline (including gasoline used in cars and trucks)	Imp. gal. 75,049	25
Fuel oil including kerosene or coal oil	" 958,121	84
Wood	—	—
Gas:		
(a) Liquefied petroleum gases	Imp. gal. 2,665	1
(b) Other manufactured gas	—	—
(c) Natural gas	M cu.ft. 969	1
Other fuel .....	...	5
Electricity purchased	kwh. 3,482,382	45
Steam purchased .....	...	3
Total fuel and electricity used .....	...	166

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

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

³ See Explanatory Notes.

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

Description	Quantity	Value
		\$'000
1. Products:		
Greases, lubricating Imp. gal	18,538,883	18,182
Oils, lubricating lb.	18,589,075	2,930
All other products .....	...	398
2. Amount received in payment for work done on materials and products owned by others		26
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above		(338)
Net adjustment for establishments receiving progress payments .....		...
Total adjusted value of shipments and work done		21,197

¹ See Explanatory Notes.

TABLE 7. Sales of Lubricating Oils, 1961 and 1962
(As reported by principal dealers)

	Crankcase oils for all internal com- bustion engines except aircraft	Aircraft crankcase oils	Other oils except auto gear oils ⁴	Auto gear oils excluding automotive transmission oils ⁴	Total sales
	barrels of 35 Imperial gallons				
1961					
Atlantic Provinces ¹	155,470	10,770	80,152	9,234	255,626
Quebec	404,871	7,900	260,596	33,836	707,203
Ontario	583,926	8,718	575,622	82,274	1,250,540
Manitoba	114,974	3,562	48,856	10,083	177,475
Saskatchewan	163,346	702	21,256	13,961	199,265
Alberta ²	229,999	3,847	116,796	20,541	371,183
British Columbia ³	218,796	4,478	77,151	13,367	313,792
Canada	1,871,382	39,977	1,180,429	183,296	3,275,084
1962					
Atlantic Provinces ¹	166,023	7,507	93,820	9,308	276,658
Quebec	433,838	6,643	236,883	40,842	728,206
Ontario	608,180	5,796	594,187	77,069	1,285,232
Manitoba	116,740	3,744	47,013	8,932	176,429
Saskatchewan	175,984	576	28,613	14,128	219,299
Alberta ²	228,997	3,730	142,817	19,060	394,604
British Columbia ³	230,097	4,020	98,313	18,467	350,897
Canada	1,969,859	32,016	1,241,646	187,804	3,431,325

¹ Includes Newfoundland, Prince Edward Island, Nova Scotia and New Brunswick.

² Includes Northwest Territories.

³ Includes Yukon Territory.

⁴ Revised for 1961.

TABLE 8. Sales of Lubricating Oils and Greases by Class of Trade, 1962

Product	Retail gasoline pump outlets	Other	Total sales
barrels of 35 Imperial gallons			
Lubricating oil:			
Atlantic Provinces ¹	91,258	176,092	267,350
Quebec	230,202	457,162	687,364
Ontario	300,071	908,092	1,208,163
Manitoba	41,199	126,298	167,497
Saskatchewan	56,779	148,394	205,173
Alberta ²	78,130	297,414	375,544
British Columbia ³	80,689	251,741	332,430
Canada	878,328	2,365,193	3,243,521
Grease:⁴			
Atlantic Provinces ¹	5,410	6,096	11,506
Quebec	11,338	25,141	36,479
Ontario	11,265	40,835	52,100
Manitoba	1,037	7,180	8,217
Saskatchewan	2,677	11,562	14,239
Alberta ²	3,073	13,980	17,053
British Columbia ³	2,111	8,359	10,470
Canada	36,911	113,153	150,064
Gear oil (including automatic transmission oils):			
Atlantic Provinces ¹	4,221	5,087	9,308
Quebec	19,225	21,617	40,842
Ontario	27,656	49,413	77,069
Manitoba	3,563	5,369	8,932
Saskatchewan	5,232	8,894	14,126
Alberta ²	5,314	13,746	19,060
British Columbia ³	5,098	13,369	18,467
Canada	70,309	117,495	187,804

¹ Includes Newfoundland, Prince Edward Island, Nova Scotia and New Brunswick.

² Includes North West Territories.

³ Includes Yukon Territory.

⁴ Includes greases at 10 pounds to a gallon.

List of Establishments, 1962

Name	Location
Quebec:	
Canadian Oil Companies Ltd.	Montreal
Tide Water Oil Company (Canada) Ltd.	Montreal
Ontario:	
Campbell Lubricating Specialties, Ltd.	Toronto
Canadian D.A. Stuart Oil Co. Ltd.	Scarborough
Houghton, E.F. and Co. Canada Ltd.	Toronto
Kendall Refining Co. of Canada Ltd.	Toronto
Kerns Lubricants Ltd.	Toronto
Ontario Lubricating Co. Ltd.	Hamilton
Stone Oil Co. Ltd.	Toronto
Texaco Canada Limited	Toronto
Tide Water Oil Company (Canada) Ltd.	Toronto
Manitoba:	
Curtis Oil Co.	St. Boniface
Tide Water Associated Oil Company (Canada) Ltd.	St. James
Alberta:	
Jet-Lube of Canada Ltd.	Edmonton
British Columbia:	
Star Oil Refining Ltd.	Victoria
Wills Oil Co. Ltd.	Vancouver

EXPLANATORY NOTES

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

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

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

Standard Industrial Classification

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

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

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

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

Establishment

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

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

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

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

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

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

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

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

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

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

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

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

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

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

³ See footnote 1.

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

1. Single-Establishment Companies

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

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

2. Multi-Establishment Companies

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

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

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

⁴ See footnote 2 for exceptions.

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

Period Covered

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

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

Working Owners or Partners

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

Number of Establishments

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

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

Employees

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

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

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

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

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

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

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

Salaries and Wages

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

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

Fuel and Electricity

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

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

Materials and Supplies

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

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

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

Shipments

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

(a) Shipments of goods of own manufacture

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

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

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

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

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

(b) Shipments of goods not of own manufacture

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

(c) Other revenue

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

Inventories

(a) Manufacturing inventory

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

(b) Inventory of goods purchased for re-sale

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

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

Value Added

(a) By manufacturing activities

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

(b) **By total activities**

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

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

Short Forms

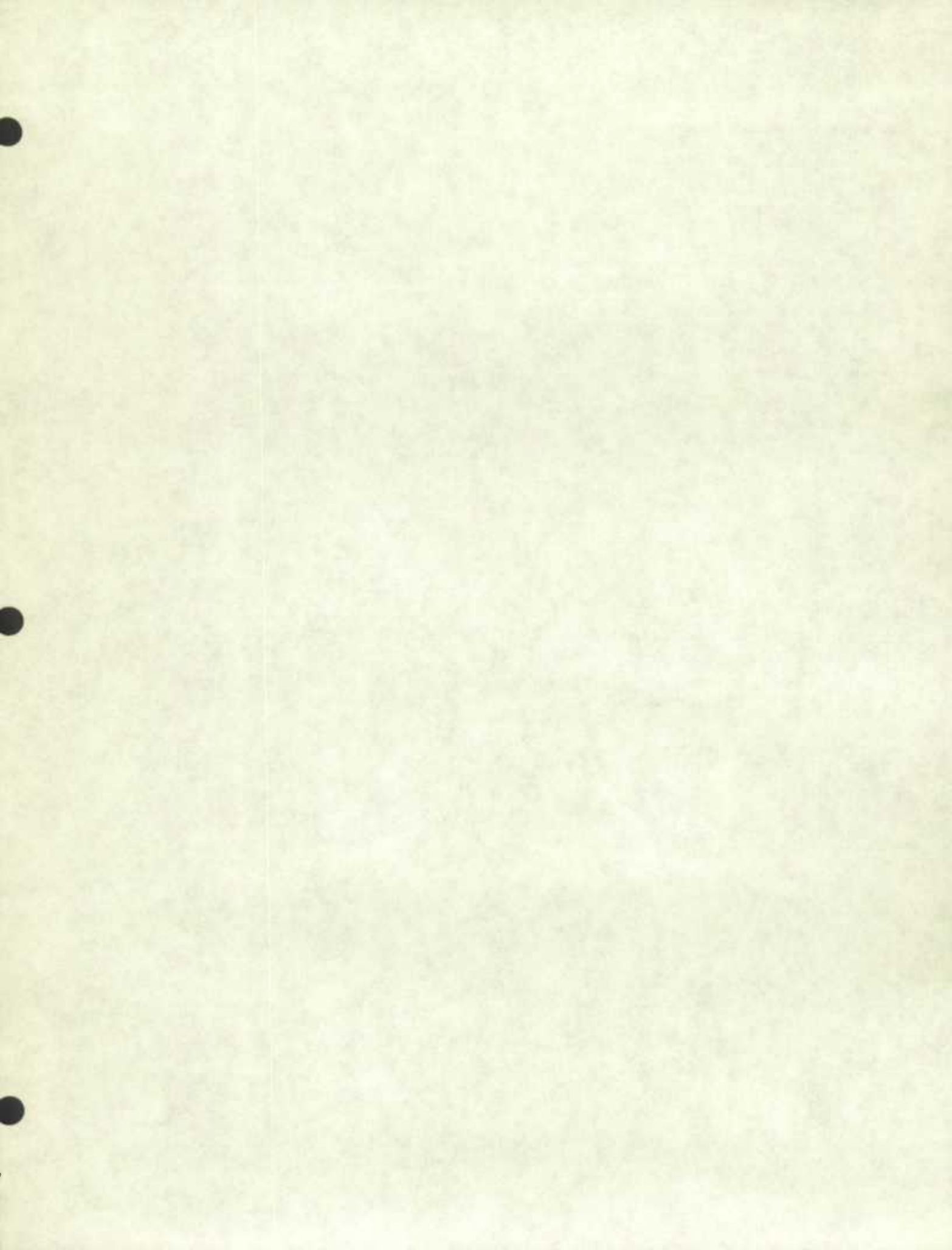
Since 1949, in order to ease the reporting burden for smaller firms, a one-page short form has been used asking for only a limited amount of detail. For purposes of publication, missing data were estimated on the basis of appropriate ratios. Beginning with the 1959 census, the general limit for short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

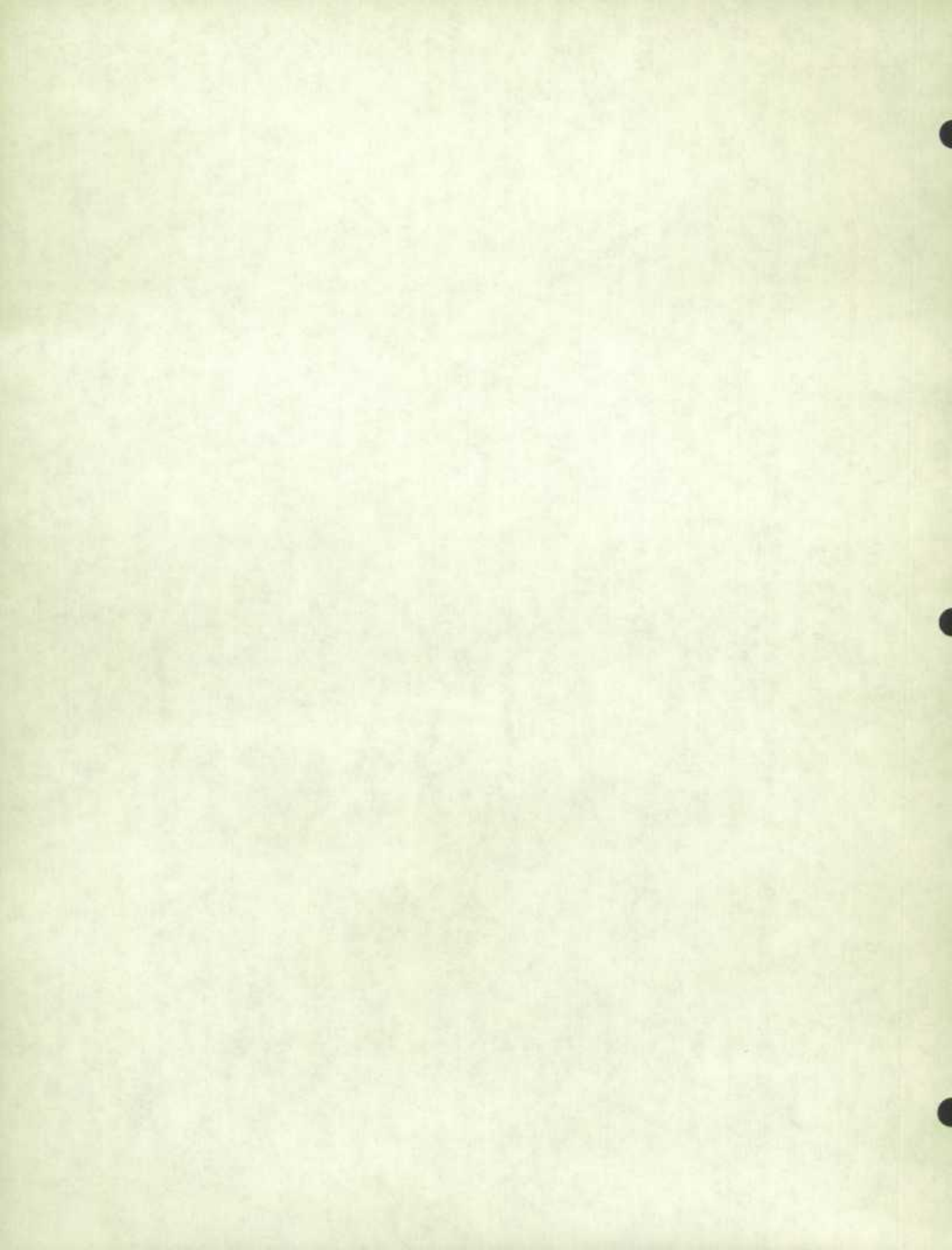
short and medium forms there are lower cut-offs for a number of industries in which the smaller firms account for a larger share of total shipments.

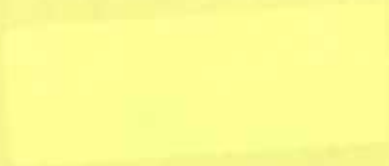
Prior to 1961, the short form was limited to a question on the principal items of factory shipments. In the 1961 and 1962 censuses, in addition to the question on shipments of goods of own manufacture, general questions on employment and payroll and on total revenue were added on all short forms. The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

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

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







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