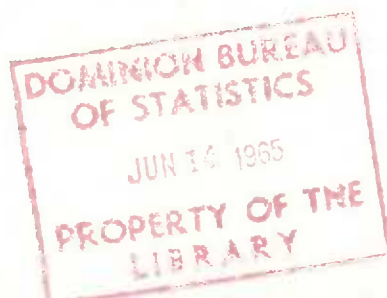


CATALOGUE No. <sup>37</sup>

32-214

ANNUAL



# FEED MANUFACTURERS 1962

ANNUAL CENSUS  
OF MANUFACTURES

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### SYMBOLS

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

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

# FEED MANUFACTURERS

1962

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

Prior to 1953 the grain processing industries were classified as follows:

- (a) Flour and Feed Mills Industries.
- (b) The Prepared Stock and Poultry Feeds Industry.
- (c) Breakfast Foods Industry.

In 1953 the classifications were revised to permit presentation of livestock feeds in one publication. The decision required combining the feed mills with the Prepared Stock and Poultry Feeds Industry.

Under the Standard Industrial Classification (Revised 1959) the grain processing industries are presented in the following publications:—

(a) **Feed Manufacturers** includes all establishments which manufacture prepared feeds, chopped grain feeds on own account and carry on a service operation of custom milling and chopping. This group, however, does not include those establishments, which manufacture flour and which may produce, in addition, prepared and chopped grain feeds. Historically, the Feed Milling Industry as it existed prior to 1953, has now been removed from its statistical association with flour milling and has been combined with the former Prepared Stock and Poultry Feed Industry. The Industry will henceforth be referred to as the Feeds Industry.

(b) **Flour Mills** includes all establishments which primarily produce wheat flour in any quantity. Therefore it would necessarily include feeds in any form manufactured by these establishments, with one exception. Some of the larger milling companies which conduct separate feed milling divisions, provide two reports; one covering their flour milling activity and the second covering their feed production activities. In this latter case, the feed report is included in the Feeds Industry.

(c) **Breakfast Cereal Manufacturers** includes all firms which manufacture prepared breakfast foods. The industry also includes some of the large flour milling companies which maintain separate specialized cereal divisions.

**Distribution by Form Size Compiled for Feed Manufacturers, 1962**

Establishments reporting on	Number of establishments	Percentage of total number of establishments	Value of shipments	Percentage of total value of shipments
			\$'000	
Long forms .....	401	43.6	278,494	86.5
Intermediate forms .....	186	20.2	28,493	8.8
Short forms .....	333	36.2	15,114	4.7
<b>Totals</b> .....	<b>920</b>	<b>100.0</b>	<b>322,101</b>	<b>100.0</b>

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

Year	Estab- lish- ments	Employees						Cost of fuel and elec- tricity <sup>4</sup>	Cost of materials and supplies used <sup>4</sup>	Value of shipments of goods of own manu- facture <sup>4</sup>	Value added <sup>4</sup>
		Production and related workers <sup>4</sup>		Administrative and office employees <sup>1</sup>		Total <sup>4</sup>					
		Number	Wages	Number	Salaries	Number	Salaries and wages				
	No.		\$'000		\$'000				\$'000		
1957.....	1,007	4,814	12,771	2,127	6,391	6,941	19,162	3,697	170,961	222,515	..
1958.....	989	4,941	14,342	2,162	7,363	7,103	21,704	3,639	201,934	260,512	55,861
1959.....	963	4,967	15,071	2,131	7,771	7,098	22,842	3,878	206,040	269,000	60,189
1960.....	970	4,839	15,316	2,144	8,027	6,983	23,343	3,918	197,110	258,537	57,017
1961.....	958	4,795	15,676	2,244	6,837	7,039	24,513	4,506	225,931	289,661	59,617

See footnotes following Table 3A.

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

Year and province	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers <sup>4</sup>			Cost of fuel and elec- tricity <sup>5</sup>	Cost of materials and supplies used <sup>4</sup>	Value of shipments of goods of own manu- facture <sup>4</sup>	Value added <sup>4</sup>	Working owners and partners <sup>6</sup>		Total employees <sup>7</sup>		Total value added <sup>8</sup>
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1961</b>													
Newfoundland .....	1	42	93	97	35	1,096	1,365	227	13	30	56	150	306
Prince Edward Island .....	14												
Nova Scotia .....	11	68	151	183	49	4,645	5,622	928	4	4	115	341	1,068
New Brunswick .....	14	171	371	474	91	6,596	7,884	1,182			376	1,292	2,289
Quebec .....	332	1,473	3,591	4,582	1,246	75,332	92,164	15,555	163	457	2,459	8,068	18,470
Ontario .....	445	2,164	4,986	7,132	2,184	96,543	127,027	28,729	248	739	3,699	13,560	33,763
Manitoba .....	36	164	369	585	181	9,070	11,963	2,742	11	24	269	1,053	3,113
Saskatchewan .....	7	45	93	161	44	1,807	2,535	716	-	-	85	312	813
Alberta .....	54	218	507	815	197	10,316	13,996	3,506	23	60	393	1,492	3,778
British Columbia .....	40	449	887	1,672	472	21,565	28,443	6,369	7	30	898	3,556	7,263
<b>Totals .....</b>	<b>954</b>	<b>4,794</b>	<b>11,047</b>	<b>15,702</b>	<b>4,498</b>	<b>226,873</b>	<b>296,999</b>	<b>59,956</b>	<b>469</b>	<b>1,344</b>	<b>8,350</b>	<b>29,823</b>	<b>70,864</b>
<b>1962</b>													
Newfoundland .....	1	20	50	50	37	1,032	1,344	268	13	31	43	134	281
Prince Edward Island .....	14												
Nova Scotia .....	11	64	134	186	53	5,029	5,973	916	6	9	114	347	1,160
New Brunswick .....	15	159	352	469	91	6,750	8,362	1,529			367	1,307	2,639
Quebec .....	322	1,408	3,378	4,554	1,355	84,752	105,269	19,365	160	526	2,517	8,744	22,600
Ontario .....	420	2,039	4,647	6,872	2,215	101,421	134,395	30,699	219	737	3,471	13,152	36,699
Manitoba .....	35	197	458	733	254	11,839	15,489	3,473	9	28	334	1,320	4,059
Saskatchewan .....	10	58	130	218	86	4,190	5,226	955	-	-	107	400	1,031
Alberta .....	53	217	514	881	207	12,598	16,414	3,667	24	72	379	1,651	3,974
British Columbia .....	39	433	850	1,625	482	23,340	29,629	5,872	4	23	885	3,554	7,623
<b>Totals .....</b>	<b>920</b>	<b>4,595</b>	<b>10,514</b>	<b>15,588</b>	<b>4,781</b>	<b>250,950</b>	<b>322,101</b>	<b>66,744</b>	<b>435</b>	<b>1,426</b>	<b>8,217</b>	<b>30,610</b>	<b>80,067</b>

See Table 2 and footnotes following Table 3A.



**TABLE 1 B. Principal Statistics classified by Size Groups based on Shipments of Goods of Own Manufacture, 1961 and 1962**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>2</sup>

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers <sup>4</sup>			Cost of fuel and elec- tricity <sup>5</sup>	Cost of materials and supplies used <sup>4</sup>	Value of shipments of goods of own manu- facture <sup>4</sup>	Value added <sup>4</sup>	Working owners and partners <sup>6</sup>		Total employees <sup>7</sup>		Total value added <sup>8</sup>
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
<b>1961</b>													
Under \$10,000	78	14	20	21	32	91	277	154	71	96	18	26	187
\$ 10,000 to \$ 24,999	67	47	81	96	51	856	1,259	347	58	137	56	110	525
25,000 " 49,999	111	122	251	284	149	3,124	4,287	1,018	101	267	173	425	1,573
50,000 " 99,999	210	486	1,089	1,251	422	12,349	15,833	3,106	113	367	822	2,252	4,693
100,000 " 199,999	210	746	1,729	2,046	750	23,259	30,181	6,243	89	314	1,319	3,904	8,407
200,000 " 499,999	175	1,064	2,537	3,180	1,089	40,345	51,697	10,430	33	136	1,824	5,832	12,984
500,000 " 999,999	47	618	1,423	2,079	602	25,913	33,819	7,389	4	27	1,036	3,954	8,238
1,000,000 " 4,999,999	49	1,287	2,985	4,778	1,057	76,645	96,939	19,396			2,277	9,071	22,126
5,000,000 and over	7	410	931	1,965	346	44,390	56,707	11,874	—	—	815	4,201	12,135
Head offices, sales offices and auxiliary units <sup>10</sup>	...	...	...	...	...	...	...	...	...	...	10	48	(3)
<b>Totals</b>	<b>954</b>	<b>4,794</b>	<b>11,047</b>	<b>15,702</b>	<b>4,498</b>	<b>226,973</b>	<b>290,999</b>	<b>59,956</b>	<b>469</b>	<b>1,344</b>	<b>8,350</b>	<b>29,823</b>	<b>70,864</b>
<b>1962</b>													
Under \$10,000	54	7	14	15	19	73	197	104	52	75	7	15	118
\$ 10,000 to \$ 24,999	56	29	73	84	45	667	1,003	296	55	142	35	102	392
25,000 " 49,999	93	94	220	258	126	2,384	3,395	869	86	266	129	376	1,149
50,000 " 99,999	184	417	970	1,150	477	10,161	13,582	3,072	117	417	617	1,768	4,150
100,000 " 199,999	211	683	1,578	1,952	687	23,091	29,763	5,943	73	277	1,236	3,836	8,440
200,000 " 499,999	205	1,099	2,554	3,391	1,275	49,032	62,321	12,186	49	226	1,936	6,387	16,151
500,000 " 999,999	54	620	1,394	2,066	615	29,208	37,502	7,772	3	24	1,096	4,144	9,188
1,000,000 " 4,999,999	57	1,277	2,877	4,887	1,248	90,951	116,317	24,130			2,446	10,127	27,642
5,000,000 and over	6	369	833	1,785	290	45,385	58,020	12,372	—	—	710	3,824	12,840
Head offices, sales offices and auxiliary units <sup>10</sup>	...	...	...	...	...	...	...	...	...	...	5	30	(2)
<b>Totals</b>	<b>920</b>	<b>4,595</b>	<b>10,514</b>	<b>15,588</b>	<b>4,781</b>	<b>250,950</b>	<b>322,101</b>	<b>66,744</b>	<b>435</b>	<b>1,426</b>	<b>8,217</b>	<b>30,610</b>	<b>80,067</b>

See footnotes following Table 2 A.

**TABLE 1 C. Principal Statistics classified by Size Groups based on Manufacturing Value Added, 1961 and 1962**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>2</sup>

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers <sup>4</sup>			Cost of fuel and elec- tricity <sup>5</sup>	Cost of materials and supplies used <sup>4</sup>	Value of shipments of goods of own manu- facture <sup>4</sup>	Value added <sup>4</sup>	Working owners and partners <sup>6</sup>		Total employees <sup>7</sup>		Total value added <sup>8</sup>
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
<b>1961</b>													
Under \$10,000	261	233	477	546	268	8,431	7,964	1,244	218	483	347	869	2,031
\$ 10,000 to \$ 24,999	299	748	1,705	1,913	691	22,940	28,534	4,950	166	525	1,280	3,531	7,745
25,000 " 49,999	180	735	1,733	2,115	651	27,919	34,957	6,400	66	240	1,305	3,984	8,515
50,000 " 99,999	113	796	1,876	2,410	865	33,435	41,680	7,501	16	72	1,296	4,292	9,494
100,000 " 199,999	42	501	1,172	1,620	455	21,188	27,492	5,933	3	23	825	3,020	6,594
200,000 " 499,999	40	832	1,978	3,029	844	39,396	51,699	11,604			1,409	5,672	12,568
500,000 " 999,999	9	360	790	1,433	288	24,937	31,112	5,853	—	—	735	2,926	7,117
1,000,000 " 4,999,999	10	589	1,316	2,636	435	50,729	67,560	16,272	—	—	1,143	5,482	16,804
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup>	...	...	...	...	...	...	...	...	...	...	10	48	(3)
<b>Totals</b>	<b>934</b>	<b>4,794</b>	<b>11,047</b>	<b>15,702</b>	<b>4,498</b>	<b>226,973</b>	<b>290,999</b>	<b>59,956</b>	<b>469</b>	<b>1,344</b>	<b>8,350</b>	<b>29,823</b>	<b>70,864</b>
<b>1962</b>													
Under \$10,000	198	140	342	389	214	5,130	6,325	946	187	454	209	632	1,640
\$ 10,000 to \$ 24,999	303	737	1,728	2,046	767	24,493	30,399	5,156	166	595	1,214	3,540	8,124
25,000 " 49,999	187	729	1,685	2,118	793	29,950	37,527	6,841	55	244	1,316	4,130	9,321
50,000 " 99,999	118	737	1,696	2,279	770	34,571	43,454	8,268	22	102	1,235	4,140	10,724
100,000 " 199,999	55	614	1,423	2,175	724	34,898	43,628	8,114	5	31	1,118	4,452	9,124
200,000 " 499,999	39	671	1,533	2,426	682	38,925	51,144	11,710			1,181	4,804	12,507
500,000 " 999,999	10	435	919	1,742	415	28,374	36,470	7,739	—	—	1,028	4,164	10,155
1,000,000 " 4,999,999	10	532	1,189	2,414	415	54,610	73,154	17,970	—	—	911	4,719	18,474
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup>	...	...	...	...	...	...	...	...	...	...	5	30	(2)
<b>Totals</b>	<b>920</b>	<b>4,595</b>	<b>10,514</b>	<b>15,588</b>	<b>4,781</b>	<b>250,950</b>	<b>322,101</b>	<b>66,744</b>	<b>435</b>	<b>1,426</b>	<b>8,217</b>	<b>30,610</b>	<b>80,067</b>

See footnotes following Table 3 A.

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

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers <sup>4</sup>			Cost of fuel and elec- tricity <sup>5</sup>	Cost of materials and supplies used <sup>4</sup>	Value of shipments of goods of own manu- facture <sup>4</sup>	Value added <sup>4</sup>	Working owners and partners <sup>6</sup>		Total employees <sup>7</sup>		Total value added <sup>8</sup>
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
No.	'000		\$'000				\$'000		\$'000				
1961													
Under \$10,000	201	131	245	279	166	3,726	4,757	840	175	357	166	360	970
\$ 10,000 to \$ 24,999	252	533	1,192	1,314	497	15,601	19,439	3,370	176	531	788	2,011	4,314
25,000 "	217	753	1,769	2,103	644	27,194	33,797	5,983	92	336	1,240	3,676	7,764
50,000 "	156	876	2,053	2,602	933	35,692	44,822	8,268	20	78	1,577	4,979	11,058
100,000 "	61	628	1,495	2,035	582	24,141	30,937	6,338	6	41	1,085	3,926	8,256
200,000 "	45	852	2,023	3,079	900	40,409	52,861	11,906			1,495	6,045	13,041
500,000 "	11	357	797	1,421	307	25,877	32,536	6,341			613	2,415	6,999
1,000,000 "	11	664	1,472	2,868	469	54,333	71,848	16,911	—	—	1,376	6,362	18,465
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup>	...	...	...	...	...	...	...	...	...	...	10	48	(3)
Totals	954	4,794	11,047	15,702	4,498	226,973	290,999	59,956	469	1,344	8,350	29,823	70,864
1962													
Under \$10,000	154	67	161	177	127	2,590	3,360	622	154	340	77	208	738
\$ 10,000 to \$ 24,999	232	457	1,063	1,212	485	14,564	18,428	3,389	166	571	605	1,652	4,041
25,000 "	209	685	1,593	1,922	698	25,779	32,148	5,693	82	350	1,146	3,456	7,520
50,000 "	172	828	1,929	2,563	890	38,093	47,649	8,780	23	102	1,570	5,138	12,059
100,000 "	78	714	1,650	2,438	814	36,049	45,157	8,441	10	62	1,223	4,751	10,701
200,000 "	54	865	1,986	3,076	922	49,241	63,707	13,747			1,629	6,406	15,872
500,000 "	8	289	605	1,173	293	22,333	28,115	5,529			570	2,345	5,888
1,000,000 "	13	690	1,528	3,027	552	62,301	83,537	20,543	—	—	1,392	6,624	23,249
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup>	...	...	...	...	...	...	...	...	...	...	5	30	(2)
Totals	920	4,595	10,514	15,588	4,781	250,950	322,101	66,744	435	1,426	8,217	30,610	80,067

See footnotes following Table 3 A.

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

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers <sup>4</sup>			Cost of fuel and elec- tricity <sup>5</sup>	Cost of materials and supplies used <sup>4</sup>	Value of shipments of goods of own manu- facture <sup>4</sup>	Value added <sup>4</sup>	Working owners and partners <sup>6</sup>		Total employees <sup>7</sup>		Total value added <sup>8</sup>
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
No.		'000			\$'000				\$'000			\$'000	
1961													
Under 5 employees .....	442	542	1,174	1,363	601	19,624	25,327	5,120	351	902	681	1,753	6,327
5 - 14 employees .....	389	1,694	3,989	4,860	1,570	62,378	79,347	15,510	110	394	2,960	9,270	20,555
15 - 49   " .....	100	1,436	3,350	4,809	1,401	69,600	87,673	17,271	8	48	2,436	8,963	20,066
50 - 99   " .....	14	497	1,166	1,913	483	26,748	36,767	9,609	—	—	871	3,431	9,878
100 - 199   " .....	9	625	1,368	2,758	444	48,623	61,684	12,447	—	—	1,392	6,359	14,042
200 - 499   " .....													
500 employees and over .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	10	48	(3)
Totals .....	954	4,794	11,047	15,702	4,498	226,973	290,999	59,956	469	1,344	8,350	29,823	70,864
1962													
Under 5 employees .....	415	528	1,240	1,464	666	22,002	28,197	5,583	327	965	674	1,958	6,828
5 - 14 employees .....	384	1,715	3,976	5,169	1,820	73,393	92,790	17,710	101	414	2,956	9,748	23,372
15 - 49   " .....	98	1,287	2,919	4,509	1,436	75,753	96,536	19,565	7	47	2,355	9,022	23,339
50 - 99   " .....	14	446	1,044	1,739	381	27,819	38,040	9,793	—	—	834	3,409	10,069
100 - 199   " .....	6	402	878	1,875	333	42,007	54,245	11,893	—	—	753	3,929	12,443
200 - 499   " .....	3	217	456	833	144	9,976	12,293	2,181	—	—	640	2,514	4,018
500 employees and over .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	5	30	(2)
Totals .....	920	4,595	10,514	15,588	4,781	250,950	322,101	66,744	435	1,426	8,217	30,610	80,067

See footnotes following Table 3 A.

**TABLE 1 F. Principal Statistics classified by Type of Organization, 1961 and 1962**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>2</sup>

Type of organization	Establishments	Manufacturing activity							Total activity				
		Production and related workers <sup>4</sup>			Cost of fuel and electricity <sup>5</sup>	Cost of materials and supplies used <sup>4</sup>	Value of shipments of goods of own manufacture <sup>4</sup>	Value added <sup>4</sup>	Working owners and partners <sup>6</sup>		Total employees <sup>7</sup>		Total value added <sup>8</sup>
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
<b>1961</b>													
Individual ownerships .....	354	609	1,348	1,490	601	20,710	26,349	5,087	336	947	728	1,784	6,138
Partnerships .....	81	176	391	471	190	6,386	8,261	1,731	133	397	223	599	2,084
Incorporated companies .....	317	2,819	6,529	10,143	2,748	146,577	190,405	41,340	...	...	5,100	20,010	45,999
Cooperatives .....	202	1,190	2,779	3,597	960	53,300	65,984	11,799	—	—	2,289	7,382	16,647
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	10	48	(3)
<b>Totals .....</b>	<b>954</b>	<b>4,794</b>	<b>11,047</b>	<b>15,702</b>	<b>4,498</b>	<b>226,973</b>	<b>290,999</b>	<b>59,956</b>	<b>469</b>	<b>1,344</b>	<b>8,350</b>	<b>29,823</b>	<b>70,864</b>
<b>1962</b>													
Individual ownerships .....	324	587	1,375	1,556	611	21,653	27,447	5,195	311	1,026	702	1,892	6,244
Partnerships .....	68	140	314	410	162	5,473	7,199	1,559	124	400	174	501	1,966
Incorporated companies .....	328	2,763	6,249	10,114	2,933	165,015	214,627	46,933	...	...	5,035	20,490	53,479
Cooperatives .....	200	1,105	2,577	3,508	1,075	58,809	72,827	13,057	—	—	2,301	7,697	18,380
Head offices, sales offices and auxiliary units <sup>10</sup> .....	...	...	...	...	...	...	...	...	...	...	5	30	(2)
<b>Totals .....</b>	<b>920</b>	<b>4,595</b>	<b>10,514</b>	<b>15,588</b>	<b>4,781</b>	<b>250,950</b>	<b>322,101</b>	<b>66,744</b>	<b>435</b>	<b>1,426</b>	<b>8,217</b>	<b>30,610</b>	<b>80,067</b>

See footnotes following Table 3 A.

**TABLE 2. Industry Outputs, Inputs and Value Added, 1961 and 1962**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>2</sup>

Item	1961	1962
	\$'000	
<b>Manufacturing activity:</b>		
Value of shipments—Goods of own manufacture .....	290,999	322,101
Add: Closing inventory—Goods in process .....	640	773
Finished goods .....	5,820	6,459
Deduct: Opening inventory—Goods in process .....	543	671
Finished goods .....	5,487	(6,030)
Gross output—Manufacturing activity .....	291,428	322,475
Deduct: Cost of materials and supplies used in manufacturing activity .....	226,973	250,950
Cost of fuel and electricity used .....	4,498	(231,471)
Value added—Manufacturing activity .....	59,956	66,744
<b>Non-manufacturing activities:</b>		
Value of shipments—Goods not of own manufacture .....	..	86,097
Add: All other revenue .....	..	1,271
Closing inventory—Goods purchased for resale .....	4,438	5,139
Deduct: Purchases of goods for resale as such .....	..	73,363
Opening inventory—Goods not of own manufacture .....	4,138	5,091
Cost of all other materials and supplies used .....	..	(..)
Value added—Non-manufacturing activities .....	10,908	13,323
<b>Total value added .....</b>	<b>70,864</b>	<b>80,067</b>

See footnote following Table 3 A.



**TABLE 3. Employment and Payroll, 1961 and 1962**

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

Year and province	Employees										Salaries and wages				
	Production and related workers				Adminis- trative and office <sup>6,9</sup>		Sales, and distribution <sup>8</sup>		Total employees <sup>7,9</sup>		Production and related workers		Admin- istrative and office	Sales, and distri- bution	Total salaries and wages
	Manufacturing <sup>4</sup>		Other <sup>5</sup>		Male	Female	Male	Female	Male	Female	Manufacturing	Other			
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufacturing	Other				
1961	number										\$'000				
Newfoundland .....	42	—	..	..	..	..	..	..	55	1	97	..	..	..	150
Prince Edward Island .....	88	—	..	..	..	..	..	..	106	9	183	..	..	..	341
Nova Scotia .....	163	8	..	..	..	..	..	..	302	74	474	..	..	..	1,292
New Brunswick .....	1,467	6	..	..	..	..	..	..	2,278	181	4,582	..	..	..	8,068
Quebec .....	2,092	72	..	..	..	..	..	..	3,387	312	7,132	..	..	..	13,560
Ontario .....	164	—	..	..	..	..	..	..	258	11	585	..	..	..	1,053
Manitoba .....	45	—	..	..	..	..	..	..	77	8	161	..	..	..	312
Saskatchewan .....	215	3	..	..	..	..	..	..	369	24	815	..	..	..	1,492
Alberta .....	429	20	..	..	..	..	..	..	792	106	1,672	..	..	..	3,556
British Columbia .....															
Totals .....	4,685	109	..	..	..	..	..	..	7,624	726	15,702	..	..	..	29,823
1962	number										\$'000				
Newfoundland .....	20	—	—	—	9	—	14	—	43	—	50	—	36	48	134
Prince Edward Island .....	64	—	—	—	19	9	21	1	104	10	186	—	87	73	347
Nova Scotia .....	159	—	—	—	36	14	103	55	298	69	469	—	185	653	1,307
New Brunswick .....	1,401	7	4	—	421	166	515	3	2,341	176	4,554	12	2,314	1,864	8,744
Quebec .....	1,962	77	13	—	575	200	622	22	3,172	299	6,872	37	3,461	2,780	13,152
Ontario .....	197	—	2	—	77	18	40	—	316	18	733	5	402	181	1,320
Manitoba .....	57	1	1	—	22	8	16	2	96	11	218	4	113	65	400
Saskatchewan .....	213	4	1	—	65	21	72	3	351	28	881	3	430	337	1,651
Alberta .....	413	20	13	1	117	87	222	12	765	120	1,625	42	1,004	884	3,554
British Columbia .....															
Totals .....	4,486	109	34	1	1,341	1,523	1,625	98	7,486	731	15,588	104	8,033	6,885	30,610

See footnotes following Table 3 A.

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

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

Month	Establishments reporting monthly detail		Establishments reporting quarterly detail	
	Male	Female	Male	Female
January .....	3,422	117		
February .....	3,399	114		
March .....	3,430	108	586	1
April .....	3,469	108		
May .....	3,510	112		
June .....	3,569	107	599	1
July .....	3,537	96		
August .....	3,552	115		
September .....	3,532	122	599	1
October .....	3,472	123		
November .....	3,450	118		
December .....	3,382	107	585	1
Average for establishments reporting monthly detail (collected only for large establishments) .....			3,483	107
Average for establishments reporting quarterly detail (collected only for medium size establishments) .....			589	1
Average for small establishments (only annual averages collected) .....			414	1
Monthly averages .....			4,486	109

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

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

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

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

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

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

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

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

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

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

<sup>11</sup> Includes paid employees and working owners, but excludes unpaid family workers.

Note: Figures may not add due to rounding.



**TABLE 4. Materials and Supplies Used in Manufacturing Activity, 1962**  
Basis: Revised Standard Industrial Classification and New Establishment Concept<sup>1</sup>

Description	Quantity	Cost
	tons	\$'000
<b>1. Materials used:</b>		
<b>Grains:</b>		
Wheat .....	385,573	23,002
Oats .....	394,357	20,204
Corn .....	535,072	28,505
Barley .....	462,171	24,084
Buckwheat .....	606	34
Rye .....	4,094	200
Flax .....	353	31
Peas .....	1,224	189
Mixed grains .....	32,295	1,654
Other grains, all kinds .....	8,975	423
Screenings (including seed screenings) .....	188,690	6,954
<b>Grain by-products:</b>		
Wheat flour (feed, etc.) .....	7,731	536
Other flour .....	407	59
Bran, shorts and middlings .....	309,618	15,987
Oatmeal, oat middlings, and oat groats .....	10,428	779
Wheat germ .....	2,082	165
Cornmeal, corn grits, cracked corn and corn germ .....	4,840	307
Hominy feed .....	119	7
Gluten feed and meal .....	19,124	1,202
Cereal feed and wheatlets .....	4,894	338
Brewers' and distillers' grains .....	32,344	1,767
Malt sprouts .....	8,040	373
Rice feeds .....	2,892	121
<b>Mixed concentrates, supplements and premixes:</b>		
Calf .....	4,299	444
Dairy and cattle .....	39,712	3,673
Swine .....	58,645	6,402
Poultry .....	65,972	7,544
Other .....	101	24
<b>Oil seed products:</b>		
Linseed oil cake and meal .....	13,893	1,142
Soybean oil cake and meal .....	373,226	32,017
Other oilcake meals .....	17,360	1,165
<b>Legumes and grasses:</b>		
Legumes and grasses (alfalfa, etc.) .....	58,844	1,459
Legume and grass meal, dehydrated .....	41,851	2,683
Legume and grass meal, sundried .....	6,336	261
<b>Fishery by-products:</b>		
Fish and liver meal .....	34,928	5,054
Oyster and clam shell .....	4,577	123
Fish, fresh or frozen .....	9,159	684
Fish solubles .....	2,407	162
<b>Meat and tankage by-products:</b>		
Blood meal (dried blood) .....	4,718	484
Bone meal .....	2,594	230
Bone char .....	220	13
Lung and liver meal .....	192	21
Meat meal .....	84,380	7,734
Raw meat, (horses, etc.) .....	19,949	1,943
Feeding tankage .....	30,411	2,760
Tankage n.e.s. .....	159	12
<b>Miscellaneous materials:</b>		
Buttermilk powder .....	5,422	639
Skim milk powder .....	6,011	828
Whey powder .....	3,339	310
Molasses .....	64,852	2,310
Beet pulp .....	11,892	659
Limestone (calcium carbonate) .....	57,815	589
Grit and gravel .....	5,763	124
Salt .....	31,359	829
Sugar .....	2,082	325
Mineral mixtures .....	6,613	680
<b>Drugs:</b>		
Antibiotics .....	1,581	2,222
Other (coccidiostats, etc.) .....	1,090	1,565
Phosphate rock and other phosphates .....	34,659	2,646
Vitamins and vitamin compounds flour enrichment .....	194	157

See footnote at end of table.

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

Description	Quantity	Cost
	tons	\$'000
1. Materials - Concluded:		
Miscellaneous materials - Con.:		
Vitamins and vitamin compounds feeds enrichment .....	2,852	1,874
Urea .....	5,596	580
Yeast .....	750	172
Seeds, (clover, sunflower, millet, etc.) .....	1,395	208
Oils, animal, fish etc. (including tallow) .....	20,983	2,492
Distillers' soluble .....	1,961	160
Tin plate .....	3,500	732
All other materials and components used <sup>2</sup> .....	...	14,026
2. Containers and other packaging materials and supplies used .....		11,042
3. Operating, maintenance and repair supplies used (excluding fuel) .....		2,599
4. Amount paid out to others for work done on materials owned by establishments .....		218
<b>Total</b> .....		<b>250,950</b>

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

<sup>2</sup> 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 \$11,037,342.

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

Description	Quantity	Cost
		\$'000
1. Large establishments which reported commodity detail:		
Bituminous coal:		
(a) From Canadian mines .....	ton 1,107	14
(b) Imported .....	" 3,070	39
Sub-bituminous coal (from Alberta mines only) .....	" 52	1
Anthracite coal .....	" 299	7
Lignite coal .....	" 2,165	12
Coke .....	" 503	15
Gasoline (including gasoline used in cars and trucks) .....	Imp. gal. 3,277,663	1,157
Fuel oil including kerosene or coal oil .....	" 3,635,162	467
Wood .....	cord 224	2
Gas:		
(a) Liquefied petroleum gases .....	Imp. gal. 98,532	30
(b) Other manufactured gas .....	M cu.ft. 659	--
(c) Natural gas .....	" 378,273	190
Other fuel .....	" ..	2
Electricity purchased .....	kwh. 103,554,101	1,659
Steam purchased .....	...	90
2. Medium size establishments which reported only group detail:		
Fuel .....	...	292
Electricity .....	...	321
3. Estimate for small establishments for which no data were collected:		
Fuel and electricity .....	...	482
4. All establishments:		
Total fuel and electricity used .....	...	4,781

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

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

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

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

Description	Quantity	Value
		\$'000
<b>1. Products:</b>		
Wheat flour:		
Enriched, all grades .....	cwt. 32,232	154
Non-enriched, all grades .....	" 190,609	852
Breakfast foods:		
Prepared, ready to serve .....	"	"
Unprepared:		
Oatmeal .....	"	"
Rolled oats .....	"	"
Unprepared breakfast cereal .....	"	"
Bran shorts and middlings .....	ton 3,565	185
Primary premixes and concentrates - for complete feeds:		
Concentrates:		
Calf .....	" 6,223	644
Dairy and cattle .....	" 123,827	10,598
Swine .....	" 112,683	12,346
Poultry:		
Chick starter .....	"	"
Broiler .....	"	"
Growing, laying and hatching .....	ton 90,793	9,837
Fattening and finishing .....	"	"
Turkey .....	"	"
Other poultry n.e.s. ....	"	"
All other concentrates n.e.s. ....	ton 5,038	572
Premixes:		
Dairy cattle .....	"	"
Swine .....	ton 25,179	3,037
Poultry .....	"	"
All other premixes n.e.s. ....	"	"
Secondary or complete feeds:		
Calf .....	ton 38,483	4,124
Dairy and cattle .....	" 488,481	34,329
Swine .....	" 643,364	50,408
Poultry:		
Chick starter .....	"	"
Broiler .....	"	"
Growing, laying and hatching .....	ton 569,924	46,643
Fattening and finishing .....	"	"
Turkey .....	ton 199,476	18,130
Other poultry n.e.s. ....	"	"
Horse feeds n.e.s. ....	"	"
Mixed feeds n.e.s. ....	ton 155,304	11,736
Miscellaneous animal and pet feeds:		
Dog and cat:		
Canned .....	ton 68,084	13,546
Biscuits .....	" 3,656	1,030
Other .....	"	"
Fox .....	ton 1,538	182
Mink .....	" 20,991	2,544
Rabbit .....	"	"
Scratch feeds n.e.s. ....	ton 33,078	2,305
Chopped, ground crushed feeds:		
Oats .....	" 98,145	5,729
Barley .....	" 95,627	5,597
Other grains, chopped etc. ....	" 171,084	10,943
Screenings .....	" 57,892	2,290
All other feeds n.e.s. ....	" 31,321	2,961
Other products:		
Mineral mixtures .....	ton 17,828	1,881
Veterinary medicines .....	"	74
Legume and grass meals, dehydrated, all kinds .....	ton 43,544	2,746
Legume and grass meals, sundried, all kinds .....	" 8,273	353
All other products .....	"	63,561
<b>2. Amount received in payment for work done on materials and products owned by others.....</b>		<b>3,303</b>
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above .....		(541)
Net adjustment for establishments receiving progress payments <sup>2</sup> .....		-
<b>Total adjusted value of shipments and work done .....</b>		<b>322,101</b>

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

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

<sup>3</sup> Confidential; included with "All other Products". - See Table 8 for all industries data.



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

Province	Manufacturing				Non-manufacturing	Total inventories
	Raw materials and supplies	Goods in process	Finished goods of own manufacture <sup>a</sup>	Total manufacturing	Products or materials purchased for resale	

Opening: <sup>3</sup>						
			book value \$'000			
Newfoundland .....	95	--	20	115	49	164
Prince Edward Island .....	486	--	52	538	130	668
Nova Scotia .....	859	3	127	989	471	1,460
New Brunswick .....	5,614	201	1,702	7,517	1,528	9,045
Quebec .....	6,391	401	3,044	9,836	2,145	11,981
Ontario .....	659	36	406	1,101	116	1,217
Manitoba .....	225	--	103	328	158	486
Saskatchewan .....	737	3	334	1,074	54	1,128
Alberta .....	2,116	27	448	2,591	440	3,031
British Columbia .....						
Totals <sup>4</sup> .....	17,183	671	6,238	24,092	5,091	29,183

Closing:						
Newfoundland .....	93	--	14	107	27	134
Prince Edward Island .....	443	--	78	521	134	655
Nova Scotia .....	775	2	135	912	694	1,606
New Brunswick .....	5,530	230	1,862	7,622	1,493	9,116
Quebec .....	6,532	423	2,931	9,886	2,079	11,965
Ontario .....	833	81	421	1,335	98	1,433
Manitoba .....	347	2	107	456	117	573
Saskatchewan .....	896	3	392	1,291	81	1,372
Alberta .....	2,299	32	509	2,840	414	3,254
British Columbia .....						
Totals <sup>4</sup> .....	17,748	773	6,449	24,970	5,139	30,109

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

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

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

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

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

**TABLE 8. Shipments of Goods of Own Manufacture - All Industries, 1961<sup>1</sup> and 1962<sup>2</sup>**

Description	1961		1962	
	Quantity	Value \$'000	Quantity	Value \$'000
<b>Wheat Flour:</b>				
Enriched, all Grades .....	cwt 23,804,806	103,761	23,102,103	107,754
Non-Enriched, all Grades .....	" 15,579,071	65,264	16,366,105	73,884
<b>Breakfast Foods:</b>				
Prepared, Ready to Serve .....	ton 53,313	33,772	53,357	35,372
Unprepared:				
Oatmeal .....	" 12,248	1,305	12,880	1,537
Rolled Oats .....	" 41,818	8,197	34,401	8,383
Unprepared Breakfast Cereal .....	" 8,874	1,978	8,543	2,237
<b>Bran Shorts and Middlings .....</b>	<b>" 643,511</b>	<b>26,280</b>	<b>639,808</b>	<b>31,250</b>
<b>Primary Premixes and Concentrates - For Complete Feeds:</b>				
Concentrates:				
Calf .....	" 5,182	486	6,392	669
Dairy and Cattle .....	" 131,027	11,251	126,239	10,819
Swine .....	" 116,704	12,289	113,599	12,455
Poultry:				
Chick Starter .....	" 9,126	1,067	4,413	589
Broiler .....	" 20,553	2,439	15,662	2,015
Growing, Laying and Hatching .....	" 96,406	9,599	93,397	10,149
Fattening and Finishing .....	" 605	64	3,026	315
Turkey .....	" 21,985	2,463	21,908	2,595
Other Poultry, n.e.s. ....	" 900	94	2,703	275
All Other Concentrates, n.e.s. ....	" 2,775	253	5,038	572
Premises:				
Dairy Cattle .....	" 6,471	571	11,893	1,061
Swine .....	" 14,708	1,282	25,179	3,037
Poultry .....	" 26,403	3,446	26,854	4,150
All Other Premises, n.e.s. ....	" 6,603	667	4,599	525
<b>Secondary or Complete Feeds:</b>				
Calf .....	" 38,032	3,927	39,080	4,180
Dairy and Cattle .....	" 458,312	30,479	497,646	34,939
Swine .....	" 621,860	44,907	657,196	51,553

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

TABLE 8. Shipments of Goods of Own Manufacture - All Industries, 1961<sup>1</sup> and 1962<sup>1</sup> - Concluded

Description	1961		1962	
	Quantity	Value \$'000	Quantity	Value \$'000
<b>Secondary or Complete Feeds – Concluded:</b>				
Poultry:				
Chick Starter .....	ton 81,210	6,979	87,177	7,788
Broiler .....	" 347,114	30,285	357,969	33,023
Growing, Laying and Hatching .....	" 562,124	43,536	578,414	47,351
Fattening and Finishing .....	" 34,397	2,756	44,968	3,945
Turkey .....	" 183,908	15,543	209,961	19,067
Other Poultry, n.e.s. ....	" 17,905	1,624	22,801	2,043
Horse Feeds, n.e.s. ....	" 4,848	355	5,541	422
Mixed Feeds, n.e.s. ....	" 157,920	11,896	439,603	28,102
<b>Miscellaneous Animal and Pet Feeds:</b>				
Dog and Cat:				
Canned .....	ton 77,533	15,171	79,935	16,029
Biscuits .....	" 4,889	1,217	3,656	1,030
Other .....	" 15,522	3,206	22,299	4,265
Fox .....	" 4,487	565	5,456	704
Mink .....	" 18,143	1,993	21,391	2,604
Rabbit .....	" 4,481	398	4,216	367
Scratch Feeds, n.e.s. ....	" 47,461	3,187	34,060	2,378
Chopped, Ground Crushed Feeds:				
Oats .....	" 109,775	6,296	99,612	5,813
Barley .....	" 102,641	5,670	96,204	5,632
Other Grains, Chopped, etc. ....	" 186,473	9,776	271,264	16,191
Screenings .....	" 260,648	4,121	132,912	6,036
All Other Feeds, n.e.s. ....	" ...	817	...	2,856
<b>Other Products:</b>				
Mineral Mixtures .....	ton 16,473	1,741	18,086	1,921
Veterinary Medicines .....	" ...	63	...	5,117
Legume and Grass Meals, Dehydrated, all Kinds .....	" 50,405	3,111	43,544	2,746
Legume and Grass Meals, Sundried, all Kinds .....	" 8,697	301	8,273	353

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

TABLE 8 A. Custom Chopping and Grinding in Feed Manufacturers, 1962

Province	Wheat	Oats	Barley	Mixed grains	Other grains	Total	Amount received for custom chopping
	tons						\$'000
Newfoundland and Prince Edward Island .....	—	1,698	25	13,477	—	15,200	68
Nova Scotia .....	22	941	34	2,021	2	3,020	14
New Brunswick .....	—	4,924	—	7,600	600	13,124	54
Quebec .....	11,779	107,082	52,238	87,583	6,020	264,702	845
Ontario .....	14,811	82,870	28,136	245,191	15,624	386,632	1,521
Manitoba .....	—	—	—	26,427	—	26,427	86
Saskatchewan .....	—	—	—	4,129	—	4,129	30
Alberta .....	4,247	20,264	19,407	38,076	—	81,994	269
British Columbia .....	72	1,447	512	250	15	2,296	9
Canada .....	30,931	219,226	100,352	424,754	22,261	797,524	2,896

Note: The Flour Milling industry had custom-grinding revenue in amount of \$37,414 and other retail and wholesale grinding establishments received \$1,134,569 for custom grinding.

**TABLE 9. Capital and Repair Expenditures, 1960-62**

Year	Capital expenditures			Repair expenditures			Total capital and repair expenditures		
	Construction	Machinery and equipment	Sub-total	Construction	Machinery and equipment	Sub-total	Construction	Machinery and equipment	Total
	\$'000								
1960 .....	3,438	5,970	9,408	737	2,328	3,065	4,175	8,298	12,473
1961 .....	3,010	4,834	7,844	725	2,426	3,151	3,735	7,260	10,995
1962 .....	1,515	4,054	5,569	678	2,389	3,067	2,193	6,443	8,636

Source: Business Finance Division, - DBS.



## EXPLANATORY NOTES

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

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

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

### Standard Industrial Classification

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

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

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

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



## Establishment

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<sup>3</sup> See footnote 1.

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

### 1. Single-Establishment Companies

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

Separately located head offices, sales offices, administrative offices and other separate auxiliary units (laboratories, warehouses, etc.) do not usually constitute separate establishments<sup>4</sup> for purposes of industry statistics since they do not normally generate operational revenues but give rise only to costs of operation (mainly salaries and wages) which make up part of the selling price of manufactured products and which are thus included in the value of shipments or sales. Where such units belong to single-establishment companies, they will be considered as extensions of the establishment's boundaries and their operations consolidated with the establishment's total activity.

### 2. Multi-Establishment Companies

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

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

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

<sup>4</sup> See footnote 2 for exceptions.



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

### **Period Covered**

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

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

### **Working Owners or Partners**

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

### **Number of Establishments**

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

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

### **Employees**

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

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

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

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



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

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

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

### Salaries and Wages

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

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

### Fuel and Electricity

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

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

### Materials and Supplies

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

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

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

### Shipments

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

#### **(a) Shipments of goods of own manufacture**

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

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

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

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

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

#### **(b) Shipments of goods not of own manufacture**

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

#### **(c) Other revenue**

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

#### **Inventories**

##### **(a) Manufacturing inventory**

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

##### **(b) Inventory of goods purchased for re-sale**

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

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

#### **Value Added**

##### **(a) By manufacturing activities**

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





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#### (b) By total activities

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

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

#### Short Forms

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

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

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

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

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