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Steel, Tubular Products and Steel Wire

August 2011



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Symbols

The following standard symbols are used in Statistics Canada publications:

- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- p preliminary
- r revised
- x suppressed to meet the confidentiality requirements of the *Statistics Act*
- E use with caution
- F too unreliable to be published
- * significantly different from reference category ($p < 0.05$)

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Highlights

August 2011

- Monthly production of primary steel and pig iron decreased 2.0% in August 2011 to 1,042,885 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products increased 8.0% to 1,047,668 metric tonnes.
- Between July 2011 and August 2011, production of steel pipe and tubing increased 10.0% to 185,443 metric tonnes.
- Total shipments of steel wire and specified wire products decreased 30.6% to 46,780 metric tonnes in August 2011.

Related products

Selected CANSIM tables from Statistics Canada

303-0046	Production and shipments of steel pipe and tubing
303-0047	Production and shipments of steel wire and specified wire products
303-0048	Production and shipments of pig iron
303-0049	Pig iron and scrap products charged to furnace, by the primary metal industry
303-0050	Production and shipments of steel casting and primary forms steel products
303-0051	Destination of net shipments of rolled steel products to consuming industries

Selected surveys from Statistics Canada

2105	Steel Pipe and Tubing
2106	Steel Wire and Specified Wire Products
2116	Steel Primary Forms, Steel Castings and Pig Iron
2184	Disposition of Shipments of Ingots and Rolled Steel Products

Statistical tables

Table 1-1

Steel primary forms and pig iron — Disposition of net shipments¹ of rolled steel products, by product, monthly 2011

SDC No.	Steel primary forms	Rails and heavy structural sections	Intermediate structural sections	Light structural sections	Concrete reinforcing bars	Other hot rolled bars	Wire rods	Railway track material
metric tonnes								
August								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	0	1,200	4,992	7,007	711	x	0	.
21 Motor vehicles and parts	149	7	231	11	.	4,738	0	.
22 Railway operating	0	.	.	.	0	163	0	.
23 Railroad cars and locomotives	.	0	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	80	214	2,099	33,611	x	0	.
32 Metal building systems	.	0	0	0	0	81	.	.
33 Contractors' products	.	0	0	.	213	496	259	.
34 Miscellaneous stamping and coating	0	0	474	367	.	32	.	.
41 Natural resources and extractive industries	.	188	0	0	1,304	11,801	0	.
51 Agricultural equipment	.	0	0	0	0	193	.	0
52 Non electrical machinery	.	0	1,599	27	.	7,377	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	0	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	0	.	.	.	0	493	x	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	149	1,475	7,510	9,511	35,839	37,964	x	0
Total domestic alloy shipments	0	.	.	.	.	5,401	x	.
81 Exports to the United States	79,369	1,028	3,599	5,207	35	23,721	x	.
82 Exports to other countries (excluding United States)	421	0	141	0	0	16,083	x	0
Total disposition	79,939	2,503	11,250	14,718	35,874	77,768	x	0
Total alloy shipments	0	.	.	.	.	10,174	0	.
Producers interchange, for sale	x	.	0	.	.	695	111	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	x	.	.	.	.	.	0	.

See notes at the end of the table.

Table 1-1 – continued

Steel primary forms and pig iron — Disposition of net shipments ¹ of rolled steel products, by product, monthly 2011

SDC No.	Cold finished bars	Plates ²	Hot rolled sheets and coils	Cold reduced sheets and strip and other cold rolled and coated	Tin plate and tin free steel (T.F.S.)	Galvanized sheets including galvalume	Total, rolled steel products
metric tonnes							
August							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	x	18,175	205,935	22,028	1,021	39,905	314,650
21 Motor vehicles and parts	837	0	31,071	6,445	0	28,981	72,470
22 Railway operating	.	0	0	.	.	0	163
23 Railroad cars and locomotives	.	1,120	0	.	.	.	1,120
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	x	4,428	3,705	0	.	2,355	x
32 Metal building systems	.	.	0	.	.	1,850	1,931
33 Contractors' products	0	0	2,379	1,499	.	21,159	26,005
34 Miscellaneous stamping and coating	10	0	3,991	2,505	.	16,989	24,368
41 Natural resources and extractive industries	35	0	0	0	.	0	13,328
51 Agricultural equipment	56	782	0	0	.	0	1,031
52 Non electrical machinery	0	0	568	0	.	0	9,571
53 Electrical machinery	.	.	44	1,584	.	1,556	3,184
54 Industrial packaging material	.	.	0	4,052	0	0	4,052
61 Pipes and tubes	0	0	112,525	381	.	1,254	114,160
62 Wire and wire products	x	.	200	132	.	108	x
63 Containers and closures	0	.	0	1,042	407	.	1,449
64 Appliances and utensils industries	.	.	0	1,406	.	811	2,217
70 Miscellaneous industries	222	0	0	.	.	.	222
Total domestic shipments	x	24,505	360,418	41,074	1,428	114,968	656,276
Total domestic alloy shipments	270	0	.	0	.	.	x
81 Exports to the United States	1,482	11,492	x	14,307	19,182	34,782	336,345
82 Exports to other countries (excluding United States)	0	4,822	x	3,271	891	12,511	55,047
Total disposition	x	40,819	481,417	58,652	21,501	162,261	1,047,668
Total alloy shipments	1,177	0	.	0	.	.	11,351
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	1,808	0	2,652	.	0	x

1. Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.

2. Effective January 2000, producers have changed the way they report hot rolled products. The result is a change in definitions. Plates including plates for pipes and tubes becomes plates. Hot rolled sheet and strip becomes hot rolled sheets and coils and now includes all hot rolled flat products in coils, regardless of thickness.

Table 1-2

Steel primary forms and pig iron — Disposition of net shipments¹ of rolled steel products, by product, year-to-date 2011

SDC No.	Steel primary forms	Rails and heavy structural sections	Intermediate structural sections	Light structural sections	Concrete reinforcing bars	Other hot rolled bars	Wire rods	Railway track material
metric tonnes								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	8	13,996	47,718	44,409	24,597	x	0	.
21 Motor vehicles and parts	1,420	7	1,377	130	.	46,367	0	.
22 Railway operating	0	.	.	.	0	413	0	.
23 Railroad cars and locomotives	.	0	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	496	7,328	17,321	253,852	x	0	.
32 Metal building systems	.	0	0	0	575	81	.	.
33 Contractors' products	.	0	0	.	8,449	2,188	997	.
34 Miscellaneous stamping and coating	0	16	2,547	2,667	.	6,061	.	.
41 Natural resources and extractive industries	.	1,295	79	14	10,956	87,947	0	.
51 Agricultural equipment	.	0	0	13	0	1,890	.	59
52 Non electrical machinery	.	0	10,169	58	.	62,609	0	.
53 Electrical machinery	.	.	.	.	.	222	.	.
54 Industrial packaging material	.	.	.	.	.	0	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	106	.	.	.	0	4,683	x	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	1,534	15,810	69,218	64,612	298,429	288,684	x	59
Total domestic alloy shipments	0	.	.	.	.	43,691	x	.
81 Exports to the United States	x	8,158	31,854	38,726	35	185,158	x	.
82 Exports to other countries (excluding United States)	x	0	680	22	0	184,088	x	0
Total disposition	632,126	23,968	101,752	103,360	298,464	657,930	x	59
Total alloy shipments	0	.	.	.	.	77,441	0	.
Producers interchange, for sale	x	.	0	.	.	4,492	421	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	x	.	.	.	.	.	0	.

See notes at the end of the table.

Table 1-2 – continued

Steel primary forms and pig iron — Disposition of net shipments¹ of rolled steel products, by product, year-to-date 2011

SDC No.	Cold finished bars	Plates ²	Hot rolled sheets and coils	Cold reduced sheets and strip and other cold rolled and coated	Tin plate and tin free steel (T.F.S.)	Galvanized sheets including galvalume	Total, rolled steel products
metric tonnes							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	x	129,881	1,722,896	165,003	9,538	245,235	2,488,685
21 Motor vehicles and parts	5,504	0	237,207	55,123	0	279,119	626,254
22 Railway operating	.	0	0	.	.	0	413
23 Railroad cars and locomotives	.	4,607	0	.	.	.	4,607
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	x	31,582	25,046	0	.	15,407	x
32 Metal building systems	.	.	0	.	.	18,560	19,216
33 Contractors' products	0	277	45,681	16,813	.	161,293	235,698
34 Miscellaneous stamping and coating	251	0	43,591	30,449	.	128,181	213,763
41 Natural resources and extractive industries	498	17	1	0	.	20	100,827
51 Agricultural equipment	440	3,894	0	0	.	0	6,296
52 Non electrical machinery	0	544	6,818	0	.	0	80,198
53 Electrical machinery	.	.	1,393	13,180	.	13,322	28,117
54 Industrial packaging material	.	.	231	38,086	0	0	38,317
61 Pipes and tubes	0	0	767,318	4,241	.	10,341	781,900
62 Wire and wire products	x	.	1,171	637	.	522	x
63 Containers and closures	0	.	804	6,353	3,182	.	10,339
64 Appliances and utensils industries	.	.	0	13,010	.	9,643	22,653
70 Miscellaneous industries	1,353	0	0	.	.	.	1,353
Total domestic shipments	x	170,802	2,852,157	342,895	12,720	881,643	5,171,635
Total domestic alloy shipments	2,153	0	.	0	.	.	x
Exports² (for final sale)							
81 Exports to the United States	9,925	98,900	x	119,568	129,417	266,706	2,455,255
82 Exports to other countries (excluding United States)	0	22,370	x	12,408	5,494	74,317	488,005
Total disposition	x	292,072	3,677,137	474,871	147,631	1,222,666	8,114,895
Total alloy shipments	5,524	0	.	0	.	.	82,965
Producers interchange, for sale	0	.	244	0	.	0	x
Exports for conversion and return ²	.	.	0	0	.	73	73
Imports by producers (including conversion)	.	15,450	17,120	7,752	.	0	x

1. Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.

2. Effective January 2000, producers have changed the way they report hot rolled products. The result is a change in definitions. Plates including plates for pipes and tubes becomes plates. Hot rolled sheet and strip becomes hot rolled sheets and coils and now includes all hot rolled flat products in coils, regardless of thickness.

Table 1-3

Steel primary forms and pig iron — Production of pig iron

	August		Year-to-date	
	2010	2011	2010	2011
metric tonnes				
Production of pig iron	769,095	633,375	5,199,262	4,893,129

Table 1-4

Steel primary forms and pig iron — Pig iron and scrap charged to steel furnaces

	August		Year-to-date	
	2010	2011	2010	2011
	metric tonnes			
Pig iron including pre-reduced iron	743,708	637,286	5,096,489	5,129,931
Scrap				
Own make	128,470	122,857	947,794	929,352
Purchased	479,644	410,208	3,807,347	3,739,924
Total, pig iron and scrap products	1,351,822	1,170,351	9,851,630	9,799,207

Table 1-5

Steel primary forms and pig iron — Production and shipments of steel, primary forms, monthly

	Production		Shipments	
	2010	2011	2010	2011
	metric tonnes			
August				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	435,446	419,209	x	x
Basic oxygen furnace	764,556	623,676	x	x
Steel, primary forms - Total	1,200,002	1,042,885	207,767	91,504
Included in "Steel primary forms total" above				
Continuous cast steel	1,196,209	1,038,135	204,217	88,182

Table 1-6

Steel primary forms and pig iron — Production and shipments of steel, primary forms, year-to-date

	Production		Shipments	
	2010	2011	2010	2011
	metric tonnes			
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	3,631,056	3,747,643	x	x
Basic oxygen furnace	5,163,291	4,994,759	x	x
Steel, primary forms - Total	8,794,347	8,742,402	2,250,347	1,304,187
Included in "Steel primary forms total" above				
Continuous cast steel	8,724,377	8,629,490	2,185,560	1,220,341

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2011

	Production	Shipments for sale		
		Domestic shipments ¹	Exports	Total shipments
metric tonnes				
August				
Total, pipe and tubing	185,443	137,207	65,254	202,461
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	1,174	2,532	0	2,532
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	15,368
over 16" (40.64 cm) outside diameter	x	x	x	x
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	5,902	3,940	9,842
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	720	704	786	1,490
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	55	x
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	506	657	269	926
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,307	x	x	2,457
over 16" (40.64 cm) outside diameter	1,067	315	0	315
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	19,996	9,048	7,602	16,650
Mechanical tubing, welded, produced from cold rolled	4,992	4,538	1,344	5,882
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	42,252	38,263	x	x
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	18,385	6,387	x	x
Other tubular products	x	1,813	800	2,613

1. Including for own use by the steel pipe and tubing industries.

Table 2-2
Steel pipe and tubing — Production and shipments, year-to-date 2011

	Production	Shipments for sale		Total shipments
		Domestic shipments ¹	Exports	
	metric tonnes			
Year-to-date				
Total, pipe and tubing	1,498,701	1,001,912	632,648	1,634,560
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	x	20,019
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	123,756
over 16" (40.64 cm) outside diameter	x	x	x	x
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	x	x	81,372
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	18,747	x	x	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	x
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	x	5,969
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	14,110	x	x	x
over 16" (40.64 cm) outside diameter	9,992	x	x	x
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	128,646	99,657	50,680	150,337
Mechanical tubing, welded, produced from cold rolled	59,364	36,125	11,974	48,099
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	284,418	x	x
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	66,305	x	x
Other tubular products	x	12,678	5,507	18,185

1. Including for own use by the steel pipe and tubing industries.

Table 3-1
Steel and specified wire products — Factory shipments¹, monthly

	Shipments				Production
	2010	2011			
		Total shipments	Domestic shipments	Exports	
metric tonnes					
August					
Barbed wire	229	x	x	x	.
Uncoated steel wire	19,199	17,324	7,712	9,612	.
Galvanized steel wire	14,505	12,224	5,900	6,324	.
Other coated steel wire	x	x	x	0	.
Farm fencing and wire chain link fabric	x	x	x	x	2,792
Wire mesh, bright or uncoated and galvanized	2,912	x	2,608	x	3,447
Wire rope	x	x	x	x	x
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	2,137	2,431	726	1,705	3,982
Staples of iron or steel	x	x	x	x	x
All other wire products	x	x	x	1	x
Grand total	54,371	46,780	24,934	21,846	.

1. Totals may not add due to rounding.

Table 3-2
Steel and specified wire products — Factory shipments¹, year-to-date

	Shipments				Production
	2010	2011			
		Total shipments	Domestic shipments	Exports	
	metric tonnes				
Barbed wire	x	x	x	x	.
Uncoated steel wire	149,613	150,466	65,256	85,210	.
Galvanized steel wire	77,114	119,620	63,555	56,065	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	x	x	x	x	x
Wire mesh, bright or uncoated and galvanized	25,353	x	x	x	35,815
Wire rope	x	x	x	x	x
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	22,887	x	x	x	29,182
Staples of iron or steel	x	x	x	x	x
All other wire products	x	x	x	x	x
Grand total	347,129	458,538	259,376	199,162	.

1. Totals may not add due to rounding.

Concepts, methodology and data quality

This publication presents the results of four monthly surveys: Steel Primary Forms, Steel Castings and Pig Iron; Ingots and Rolled Steel Products; Steel Pipe and Tubing; and Steel Wire and Specified Wire Products. These surveys measure, on a monthly basis, the quantities of selected steel products that are produced and shipped by Canadian manufacturers. The target population for these surveys includes manufacturers in Canada of primary steel, steel products, pig iron, steel pipe and tubing as well as, steel wire as defined in the Standard Classification of Goods (SCG) that report these products to the Annual Survey of Manufactures and Logging or ASML (Survey ID 2103). This means that estimates from the monthly surveys do not cover the entire universe of steel producers in Canada because the ASML does not survey all businesses. Instead, the ASML uses administrative data to cover the small and medium-sized establishments. These manufacturers are not part of the four monthly surveys.

General methodology

Data are collected each month, directly from survey respondents using a mail-out / mail-back process. Data capture and preliminary editing are performed simultaneously to ensure validity of the data. Businesses from whom no response has been received or whose data may contain errors are followed-up by telephone or fax.

Missing data for the current month are imputed automatically by applying to the previous month's value, the month-to-month change observed for the same period in the previous year, for the unit in question. However, an option exists for analysts to manually override this imputation with a better estimate based on pertinent knowledge about the industry or the business.

Various confidentiality rules are applied to all data before they are released to prevent the publication or disclosure of any information deemed confidential. If necessary, data are suppressed to prevent the direct or residual disclosure of identifiable data.

Direct disclosure could occur when the value in a tabulation cell is composed of a few respondents or when the cell is dominated by a few companies. Residual disclosure could occur when confidential information can be derived indirectly by piecing together information from different sources or data series.

Under normal circumstances, data are collected, captured, edited, tabulated and published within 6-8 weeks after the reference month.

Revisions

Data may be revised to include amended information or reports from respondents that are received after the end of a collection cycle. Revisions are disseminated in subsequent periods and reflected in the CANSIM series and in the tables of this publication.

Data accuracy

The methodology of these surveys has been designed to promote data accuracy. Since data are collected from all Canadian producers of primary steel, steel products, pig iron, steel pipe and tubing and steel wire within the target population, the resulting estimates are not subject to sampling error. However, the results are still subject to the non-sampling errors associated with coverage, non-response, inaccurate reporting, and processing. Errors relating to coverage and non-response can be measured and are summarized in text table 1. All attempts are made to control inaccurate reporting and processing errors.

Moreover, survey results are analyzed to ensure comparability with patterns observed in historical data series and the economic condition of the industry. Information available from other sources such as the Steel Primary Forms Weekly Survey (Survey ID 2131) and the Monthly Survey of Manufacturing or MSM (Survey ID 2101) are also used in the validation process.

Coverage error

There is a degree of under coverage (referred to as coverage error) in the survey results as there is generally a lag between the time a new business comes into existence and when it is included in the universe of these sub-annual surveys. This occurs because the list of businesses surveyed is derived from the latest available survey results for the ASML which are not available until 15 months after the reference period.

This error is kept at a minimum by also using advance information from the ASML frame, feedback from the MSM and other sources such as the Canadian Steel Producer's Association, trade journals and newspaper articles, to identify new survey units.

Non-response error

Some respondents may be unable to provide data for numerous reasons (i.e. fire, theft, strike, economic hardship, etc.), while others may be late in responding. To minimize non-response, delinquent respondents are followed up rigorously by phone or fax. Data for non-responding units are imputed using industry trend and other related information. Data are revised at a later date, if completed questionnaires are received after the end of a collection cycle.

Inaccurate response

Inaccuracy may result from poor questionnaire design or an inability on the part of respondents to provide the requested information or from misinterpretation of the survey questions. To reduce such errors the format and wording in the questionnaire are reviewed from time to time and modified based on feedback from survey respondents and data users. Respondents are also reminded of the importance of their contribution and of the need for accurate data reporting.

Processing errors

These errors may occur at various stages in the processing of survey data such as data entry, verification, editing and tabulation. Data are examined for such errors using automated edits along with an analytical review by subject matter experts. Several checks are performed on the collected data to verify internal consistency and comparability over time.

Text table 1
Coverage and non-response errors

	Coverage error based on ASML 2004	Non-response error- annual average 2005
	percent	
Steel primary forms steel castings and pig iron	0	6
Ingots and rolled steel products	3	0
Steel pipe and tubing	0	0
Steel wire	0	0

Definitions

Shipments:

Shipments refer to the quantity of manufactured goods that are shipped, during the reference period from the plant to customers in domestic or export markets.

Production:

Production refers to the quantity of goods manufactured in Canada during a reference period including intermediate products. The final goods may be shipped or retained in inventory.

Exports:

Shipments of goods destined for customers outside of Canada.

Disposition of shipments:

Disposition of shipments refers to the distribution of shipped quantities of manufactured goods by end use (market).

Coverage ratio:

The share of total ASM shipment values for products included in a given sub-annual survey from businesses surveyed by the same sub-annual survey.

Non-response rate:

Number of non-responses in the year, divided by the number of total expected responses in the year.

Number of non-responses in the year, divided by the number of total expected responses in the year. More detailed information is available from the Annual Survey of Manufactures and Logging, CANSIM Table 301-0006. Specific enquiries should be directed to: The Dissemination and Frame Services section, Manufacturing and Energy Division, Statistics Canada, Ottawa, Ontario, K1A 0T6 (Telephone: 1-866-873-8789 or 613-951-9497; Fax line: 613-951-3877; Internet: manufact@statcan.gc.ca).