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Steel, Tubular Products and Steel Wire

September 2012



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Statistics Canada
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Steel, Tubular Products and Steel Wire

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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

September 2012

- Monthly production of primary steel and pig iron increased 0.9% in September 2012 to 1,117,811 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products increased 0.7% to 976,771 metric tonnes.
- Between August 2012 and September 2012, production of steel pipe and tubing increased 29.3% to 198,339 metric tonnes.
- Total shipments of steel wire and specified wire products decreased 11.3% to 32,845 metric tonnes in September 2012.

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 shipments of rolled steel products, by product and industry monthly 2012

	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							
September								
Domestic shipments								
Steel service centres and other wholesalers and warehouses	0	1,246	3,897	3,090	2,201	6,967	0	.
Motor vehicles and parts	40	0	318	9	.	6,125	0	.
Railway operating	0	.	.	.	0	0	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	97	484	x	51,677	566	0	.
Metal building systems	.	0	0	0	0	0	.	.
Contractors' products	.	0	0	.	1,416	143	222	.
Miscellaneous stamping and coating	0	3	81	101	.	1,765	.	.
Natural resources and extractive industries	.	0	0	0	1,892	8,284	0	.
Agricultural equipment	.	0	0	0	0	59	.	0
Non electrical machinery	.	0	1,353	0	.	7,040	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	299	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	40	1,346	6,133	x	57,186	31,248	x	0
Total domestic alloy shipments	0	.	.	.	.	5,265	0	.
Exports to the United States	x	527	2,902	4,182	0	20,323	x	.
Exports to other countries (excluding United States)	x	0	99	0	0	10,367	x	0
Total disposition	x	1,873	9,134	x	57,186	61,938	x	0
Total alloy shipments	0	.	.	.	.	9,024	0	.
Producers interchange, for sale	x	.	0	.	.	339	22	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	0	.	.	.	.	.	0	.

See notes at the end of the table.

Table 1-1 – continued

Steel primary forms and pig iron — Disposition of net shipments of rolled steel products, by product and industry monthly 2012

	Cold finished bars	Plates ¹	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							
September							
Domestic shipments							
Steel service centres and other wholesalers and warehouses	1,052	11,688	199,861	15,874	1,152	30,527	277,555
Motor vehicles and parts	571	0	33,014	7,947	0	47,251	95,275
Railway operating	.	0	0	.	.	0	0
Railroad cars and locomotives	.	890	0	.	.	.	890
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	4,552	5,066	116	.	2,378	x
Metal building systems	.	.	0	.	.	1,644	1,644
Contractors' products	0	0	4,130	1,644	.	21,599	29,154
Miscellaneous stamping and coating	43	0	2,432	3,280	.	14,642	22,347
Natural resources and extractive industries	68	0	2	0	.	0	10,246
Agricultural equipment	0	199	0	0	.	0	258
Non electrical machinery	0	153	638	0	.	0	9,184
Electrical machinery	.	.	30	602	.	1,632	2,264
Industrial packaging material	.	.	22	4,398	0	0	4,420
Pipes and tubes	0	0	87,664	655	.	1,017	89,336
Wire and wire products	x	.	144	93	.	103	x
Containers and closures	0	.	0	43	494	.	537
Appliances and utensils industries	.	.	0	0	.	611	611
Miscellaneous industries	142	0	0	.	.	.	142
Total domestic shipments	x	17,482	333,003	34,652	1,646	121,404	628,083
Total domestic alloy shipments	0	0	.	0	.	.	5,265
Exports to the United States	1,220	9,549	x	17,549	14,759	61,137	263,701
Exports to other countries (excluding United States)	0	1,594	x	521	353	12,266	84,987
Total disposition	x	28,625	433,576	52,722	16,758	194,807	976,771
Total alloy shipments	582	0	.	0	.	.	9,606
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	0	4,227	288	.	0	4,515

1. 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.

Note(s): Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.

Table 1-2

Steel primary forms and pig iron — Disposition of net shipments of rolled steel products, by product and industry, year-to-date 2012

	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								
Steel service centres and other wholesalers and warehouses	9	14,326	58,050	49,985	23,648	x	0	.
Motor vehicles and parts	x	27	x	196	.	48,700	0	.
Railway operating	0	.	.	.	0	222	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	1,057	x	x	363,126	x	0	.
Metal building systems	.	0	0	0	261	326	.	.
Contractors' products	.	0	0	.	4,741	2,106	2,054	.
Miscellaneous stamping and coating	0	55	2,008	1,971	.	6,418	.	.
Natural resources and extractive industries	.	408	57	0	9,887	84,787	0	.
Agricultural equipment	.	0	24	40	0	3,568	.	0
Non electrical machinery	.	0	x	47	.	65,085	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	x	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	x	15,873	x	x	401,663	297,357	x	0
Total domestic alloy shipments	0	.	.	.	.	46,481	x	.
Exports to the United States	x	7,732	x	46,672	0	209,180	x	.
Exports to other countries (excluding United States)	x	0	727	29	0	199,745	x	0
Total disposition	x	23,605	x	x	401,663	706,282	x	0
Total alloy shipments	0	.	.	.	.	83,965	x	.
Producers interchange, for sale	x	.	0	.	.	4,592	578	.
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 shipments of rolled steel products, by product and industry, year-to-date 2012

		Cold finished bars	Plates ¹	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								
Steel service centres and other wholesalers and warehouses	x	150,069	1,679,809	141,887	10,870	305,831	2,524,816	
Motor vehicles and parts	x	32	285,555	72,558	0	442,570	859,542	
Railway operating	.	0	0	.	.	0	222	
Railroad cars and locomotives	.	5,988	0	.	.	.	5,988	
Shipbuilding	.	.	.	.	.	.	0	
Steel fabrication	x	53,537	x	549	.	17,161	x	
Metal building systems	.	.	0	.	.	15,247	15,834	
Contractors' products	502	1,302	43,726	16,908	.	197,335	268,674	
Miscellaneous stamping and coating	129	0	42,730	28,299	.	132,990	214,600	
Natural resources and extractive industries	751	0	2	22	.	4,090	100,004	
Agricultural equipment	278	3,163	0	0	.	0	7,073	
Non electrical machinery	x	1,656	9,095	0	.	0	87,738	
Electrical machinery	.	.	552	9,184	.	14,543	24,279	
Industrial packaging material	.	.	549	39,148	0	0	39,697	
Pipes and tubes	0	0	808,737	6,263	.	14,250	829,250	
Wire and wire products	x	.	x	904	.	674	x	
Containers and closures	0	.	227	2,700	7,980	.	10,907	
Appliances and utensils industries	.	.	0	5,662	.	7,346	13,008	
Miscellaneous industries	1,570	0	0	.	.	.	1,570	
Total domestic shipments	x	215,747	2,916,904	324,084	18,850	1,152,037	5,680,743	
Total domestic alloy shipments	1,346	0	.	0	.	.	x	
Exports (for final sale)								
Exports to the United States	x	114,584	x	151,309	161,342	448,979	2,559,529	
Exports to other countries (excluding United States)	41	29,567	x	14,674	6,459	117,167	688,510	
Total disposition	x	359,898	3,856,281	490,067	186,651	1,718,183	8,928,782	
Total alloy shipments	5,775	0	.	0	.	.	x	
Producers interchange, for sale	0	.	0	0	.	0	x	
Exports for conversion and return	.	.	0	0	.	1,284	1,284	
Imports by producers (including conversion)	.	0	24,527	11,078	.	0	x	

1. 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.

Note(s): Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.

Table 1-3

Steel primary forms and pig iron — Production of pig iron

	September		Year-to-date	
	2011	2012	2011	2012
metric tonnes				
Production of pig iron	623,582	626,332	5,516,711	5,774,451

Table 1-4
Steel primary forms and pig iron — Pig iron and scrap charged to steel furnaces

	September		Year-to-date	
	2011	2012	2011	2012
	metric tonnes			
Pig iron including pre-reduced iron	644,937	682,308	5,774,868	6,004,735
Scrap				
Own make	125,862	109,462	1,055,214	1,148,149
Purchased	469,122	354,784	4,209,046	3,936,633
Total, pig iron and scrap products	1,239,921	1,146,554	11,039,128	11,089,517

Table 1-5
Steel primary forms and pig iron — Production and shipments of steel, primary forms, monthly

	Production		Shipments	
	2011	2012	2011	2012
	metric tonnes			
September				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	449,227	468,314	x	x
Basic oxygen furnace	624,851	649,497	x	x
Steel, primary forms - Total	1,074,078	1,117,811	163,166	179,611
Included in "Steel primary forms total" above				
Continuous cast steel	1,057,847	1,083,055	151,795	150,689

Table 1-6
Steel primary forms and pig iron — Production and shipments of steel, primary forms, year-to-date

	Production		Shipments	
	2011	2012	2011	2012
	metric tonnes			
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	4,196,870	4,392,770	x	x
Basic oxygen furnace	5,619,610	5,896,220	x	x
Steel, primary forms - Total	9,816,480	10,288,990	1,467,353	1,532,353
Included in "Steel primary forms total" above				
Continuous cast steel	9,687,337	10,002,493	1,372,136	1,284,005

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2012

	Production	Shipments for sale		Total shipments
		Domestic shipments ¹	Exports	
	metric tonnes			
September				
Total, pipe and tubing	198,339	150,121	87,832	237,951
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	1,506	1,615	0	1,615
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	22,768	x	x	21,141
over 16" (40.64 cm) outside diameter	20,363	7,209	12,683	19,893
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	x	x	14,633
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	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	29	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	3,342	x	x	x
over 16" (40.64 cm) outside diameter	x	978	18	996
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	12,957	22,548	5,540	28,088
Mechanical tubing, welded, produced from cold rolled	x	4,295	1,661	5,956
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	28,626	18,713	47,339
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	8,691	x	x
Other tubular products	x	1,201	1,991	3,191

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 2012

	Production	Shipments for sale		
		Domestic shipments ¹	Exports	Total shipments
		metric tonnes		
Total, pipe and tubing	1,747,114	1,200,196	834,420	2,034,616
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	20,151	0	20,151
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	172,648
over 16" (40.64 cm) outside diameter	186,796	23,419	146,774	170,195
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	x	x	112,926
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	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	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	x
over 16" (40.64 cm) outside diameter	x	x	148	x
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	97,189	140,425	60,861	201,284
Mechanical tubing, welded, produced from cold rolled	x	42,611	16,719	59,328
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	320,775	192,361	513,136
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	60,827	x	x
Other tubular products	x	13,765	7,316	21,079

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

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

	Shipments				Production
	2011	2012			
		Total shipments	Domestic shipments	Exports	
	metric tonnes				
September					
Barbed wire	x	x	x	x	.
Uncoated steel wire	19,168	15,174	7,455	7,719	.
Galvanized steel wire	6,714	7,114	3,143	3,971	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	x	550	x	x	608
Wire mesh, bright or uncoated and galvanized	x	x	2,628	x	3,068
Wire rope	x	x	x	x	x
Nails and staples	2,287	x	541	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	2,286	1,696	x	x	2,002
Staples of iron or steel	1	x	x	0	x
All other wire products	x	1,692	1,689	3	1,499
Grand total	38,002	32,845	18,144	14,701	.

Note(s): Data has been revised from March 2010 to November 2011. These revised data are available at: www.statcan.gc.ca/cansim, table 303-0047. Totals may not add due to rounding.

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

	Shipments				Production
	2011	2012			
		Total shipments	Domestic shipments	Exports	
	metric tonnes				
Barbed wire	x	x	x	x	.
Uncoated steel wire	173,163	161,131	73,438	87,693	.
Galvanized steel wire	66,386	67,189	30,038	37,151	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	x	7,067	x	x	7,316
Wire mesh, bright or uncoated and galvanized	x	x	29,515	x	31,887
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	x	23,543	x	x	23,645
Staples of iron or steel	6	x	x	0	x
All other wire products	x	x	x	29	x
Grand total	349,419	344,040	186,701	157,339	.

Note(s): Data has been revised from March 2010 to November 2011. These revised data are available at: www.statcan.gc.ca/cansim, table 303-0047. 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 (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 (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 the Annual Survey of Manufactures and Logging (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 Annual Survey of Manufactures (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).