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Steel, Tubular Products and Steel Wire

March 2010



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Manufacturing, Construction and Energy Division

Steel, Tubular Products and Steel Wire

March 2010

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User information

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
- 0s 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

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Highlights

March 2010

- Monthly production of primary steel and pig iron increased 12.6 % in March 2010 to 1,135,759 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products increased 21.7 % to 1,163,259 metric tonnes.
- Between February 2010 and March 2010, production of steel pipe and tubing increased 10.5 % to 181,543 metric tonnes.
- Total shipments of steel wire and specified wire products increased 9.6% to 42,079 metric tonnes in March 2010.

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 2010

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								
March								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	2	1,679	9,251	5,998	6,017	x	0	.
21 Motor vehicles and parts	125	0	87	16	.	3,525	0	.
22 Railway operating	0	.	.	.	0	57	0	.
23 Railroad cars and locomotives	.	102	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	641	1,498	1,497	42,155	x	0	.
32 Metal building systems	.	0	0	0	0	0	.	.
33 Contractors' products	.	0	0	.	239	x	0	.
34 Miscellaneous stamping and coating	0	0	58	24	.	0	.	.
41 Natural resources and extractive industries	.	308	0	0	812	17,087	0	.
51 Agricultural equipment	.	0	0	3	0	117	.	0
52 Non electrical machinery	.	0	1,941	0	.	7,551	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	0	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	0	.	.	.	0	102	x	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	127	2,730	12,835	7,538	49,223	36,434	x	0
Total domestic alloy shipments	0	.	.	.	.	5,004	x	.
81 Exports to the United States	x	557	4,410	3,644	0	22,392	x	.
82 Exports to other countries (excluding United States)	x	0	19	0	0	13,012	x	0
Total disposition	172,065	3,287	17,264	11,182	49,223	71,838	x	0
Total alloy shipments	0	.	.	.	.	7,927	0	.
Producers interchange, for sale	x	.	0	.	.	1,078	161	.
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 ¹ of rolled steel products, by product, monthly 2010

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							
March							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	x	20,498	194,253	23,201	1,436	31,802	304,080
21 Motor vehicles and parts	1,224	0	26,953	6,980	0	37,768	76,678
22 Railway operating	.	0	0	.	.	0	57
23 Railroad cars and locomotives	.	136	0	.	.	.	238
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	x	5,657	1,713	0	.	1,617	55,173
32 Metal building systems	.	.	0	.	.	2,334	2,334
33 Contractors' products	0	4	2,901	x	.	22,751	28,524
34 Miscellaneous stamping and coating	60	0	5,027	x	.	17,551	x
41 Natural resources and extractive industries	56	7	0	0	.	4	18,274
51 Agricultural equipment	53	22	0	0	.	.	195
52 Non electrical machinery	0	0	445	0	.	0	9,937
53 Electrical machinery	.	.	34	1,528	.	2,132	3,694
54 Industrial packaging material	.	.	81	5,371	0	0	5,452
61 Pipes and tubes	0	0	129,692	719	.	1,528	131,939
62 Wire and wire products	x	.	88	104	.	57	x
63 Containers and closures	0	.	0	707	3,036	.	3,743
64 Appliances and utensils industries	.	.	0	2,738	.	2,742	5,480
70 Miscellaneous industries	367	0	0	.	.	.	367
Total domestic shipments	x	26,324	361,187	48,316	4,472	120,286	695,196
Total domestic alloy shipments	377	0	.	0	.	.	x
81 Exports to the United States	1,406	11,144	x	23,690	16,149	40,226	411,548
82 Exports to other countries (excluding United States)	0	2,742	x	755	937	x	56,515
Total disposition	x	40,210	468,382	72,761	21,558	x	1,163,259
Total alloy shipments	377	0	.	0	.	.	8,304
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	395	2,002	1,813	.	0	4,210

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 2010

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	7	5,101	21,042	15,071	14,450	x	0	.
21 Motor vehicles and parts	475	0	312	50	.	12,879	0	.
22 Railway operating	0	.	.	.	0	74	0	.
23 Railroad cars and locomotives	.	388	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	1,567	3,866	6,668	101,194	x	0	.
32 Metal building systems	.	0	0	14	186	69	.	.
33 Contractors' products	.	0	0	.	872	x	404	.
34 Miscellaneous stamping and coating	0	0	798	142	.	98	.	.
41 Natural resources and extractive industries	.	404	24	0	2,597	40,106	0	.
51 Agricultural equipment	.	0	0	3	0	371	.	0
52 Non electrical machinery	.	0	5,235	0	.	20,164	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	0	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	0	.	.	.	0	663	x	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	482	7,460	31,277	21,948	119,299	96,228	x	0
Total domestic alloy shipments	0	.	.	.	.	12,714	x	.
81 Exports to the United States	x	2,288	9,910	9,395	0	59,541	x	.
82 Exports to other countries (excluding United States)	x	0	19	40	0	37,546	x	0
Total disposition	x	9,748	41,206	31,383	119,299	193,315	x	0
Total alloy shipments	0	.	.	.	.	19,777	0	.
Producers interchange, for sale	x	.	0	.	.	2,734	270	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	0	.	.	.	.	.	0	.

See notes at the end of the table.

Table 1-2 – continued

Steel primary forms and pig iron — Disposition of net shipments ¹ of rolled steel products, by product, year-to-date 2010

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	62,400	544,815	71,034	4,565	94,988	860,198
21 Motor vehicles and parts	3,252	0	77,191	21,605	0	98,284	214,048
22 Railway operating	.	0	0	.	.	0	74
23 Railroad cars and locomotives	.	408	0	.	.	.	796
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	x	12,010	7,317	0	.	4,799	138,430
32 Metal building systems	.	.	0	.	.	5,172	5,441
33 Contractors' products	0	62	12,665	x	.	65,909	86,864
34 Miscellaneous stamping and coating	182	0	9,475	x	.	49,980	x
41 Natural resources and extractive industries	124	251	0	0	.	4	43,510
51 Agricultural equipment	169	186	0	0	.	.	729
52 Non electrical machinery	0	0	1,107	0	.	0	26,506
53 Electrical machinery	.	.	138	6,073	.	5,165	11,376
54 Industrial packaging material	.	.	560	13,819	0	0	14,379
61 Pipes and tubes	0	0	319,321	3,442	.	5,666	328,429
62 Wire and wire products	x	.	463	254	.	271	x
63 Containers and closures	0	.	0	1,579	7,974	.	9,553
64 Appliances and utensils industries	.	.	21	8,501	.	6,661	15,183
70 Miscellaneous industries	679	0	0	.	.	.	679
Total domestic shipments	x	75,317	973,073	144,814	12,539	336,899	1,888,373
Total domestic alloy shipments	1,065	0	.	0	.	.	x
Exports ² (for final sale)							
81 Exports to the United States	3,750	29,447	x	59,691	43,640	108,451	1,088,845
82 Exports to other countries (excluding United States)	0	4,723	x	2,138	1,792	x	144,302
Total disposition	x	109,487	1,265,670	206,643	57,971	x	3,121,520
Total alloy shipments	1,065	0	.	0	.	.	20,842
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return ²	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	1,339	3,622	6,796	.	0	11,757

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

	March		Year-to-date	
	2009	2010	2009	2010
metric tonnes				
Production of pig iron	387,045	655,489	1,403,301	1,904,427

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

	March		Year-to-date	
	2009	2010	2009	2010
	metric tonnes			
Pig iron including pre-reduced iron	398,897	630,774	1,414,250	1,872,297
Scrap				
Own make	138,959	120,774	344,133	348,501
Purchased	295,961	519,137	858,288	1,333,986
Total, pig iron and scrap products	833,817	1,270,685	2,616,671	3,554,784

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

	Production		Shipments	
	2009	2010	2009	2010
	metric tonnes			
March				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	308,023	495,077	x	x
Basic oxygen furnace	429,462	640,682	x	x
Steel, primary forms - Total	737,485	1,135,759	67,772	292,442
Included in "Steel primary forms total" above				
Continuous cast steel	730,079	1,120,057	x	281,046

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

	Production		Shipments	
	2009	2010	2009	2010
	metric tonnes			
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	838,709	1,326,089	x	x
Basic oxygen furnace	1,510,316	1,856,159	x	x
Steel, primary forms - Total	2,349,025	3,182,248	x	829,322
Included in "Steel primary forms total" above				
Continuous cast steel	2,324,426	3,175,994	x	801,079

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2010

	Production	Shipments for sale		Total shipments
		Domestic shipments ¹	Exports	
metric tonnes				
March				
Total, pipe and tubing	181,543	87,166	103,545	190,711
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	619	0	619
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	5,284	x	x	8,062
over 16" (40.64 cm) outside diameter	22,790	0	31,378	31,378
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	17,569	14,431	9,232	23,663
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	1,739	944	1,134	2,078
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,535	942	125	1,067
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	790	655	228	883
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,065	2,121	26	2,147
over 16" (40.64 cm) outside diameter	1,255	933	35	968
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	x	10,615	x	x
Mechanical tubing, welded, produced from cold rolled	10,670	5,491	1,521	7,012
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	50,086	24,880	17,508	42,388
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	14,609	3,490	10,124	13,614
Other tubular products	x	1,528	747	2,275

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 2010

	Production	Shipments for sale		
		Domestic shipments ¹	Exports	Total shipments
		metric tonnes		
Year-to-date				
Total, pipe and tubing	505,507	266,163	261,968	528,130
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	4,257	4	4,261
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	12,259	x	x	18,868
over 16" (40.64 cm) outside diameter	71,813	x	x	77,145
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	43,583	39,661	22,437	62,098
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	5,272	4,581	3,306	7,887
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,074	1,479	398	1,877
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	2,077	541	2,618
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	4,070	4,550	57	4,607
over 16" (40.64 cm) outside diameter	x	2,381	35	2,416
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	x	27,571	x	x
Mechanical tubing, welded, produced from cold rolled	29,387	14,032	4,169	18,201
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	136,933	89,942	47,260	137,202
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	35,802	14,303	16,029	30,331
Other tubular products	x	3,506	2,125	5,631

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
	2009	2010			
		Total shipments	Domestic shipments	Exports	
metric tonnes					
March					
Barbed wire	x	x	x	x	.
Uncoated steel wire	12,845	19,891	9,772	10,119	.
Galvanized steel wire	9,761	8,858	3,828	5,030	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	x	x	x	x	599
Wire mesh, bright or uncoated and galvanized	2,941	3,188	x	x	2,996
Wire rope	3,222	2,062	x	x	x
Nails and staples	x	x	x	x	3,433
Wire roofing nails of a length of 25 mm or more, iron or steel	1,045	3,460	1,951	1,509	3,373
Staples of iron or steel	x	x	x	x	60
All other wire products	x	x	x	5	x
Grand total	38,097	42,079	24,040	18,039	.

1. Totals may not add due to rounding.

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

	Shipments				Production
	2009	2010			
		Total shipments	Domestic shipments	Exports	
metric tonnes					
Barbed wire	x	x	x	x	.
Uncoated steel wire	35,872	56,201	29,623	26,578	.
Galvanized steel wire	29,369	23,226	9,638	13,588	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	x	x	x	x	1,653
Wire mesh, bright or uncoated and galvanized	8,030	9,170	x	x	9,422
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	2,306	8,343	4,634	3,709	8,064
Staples of iron or steel	x	x	x	x	x
All other wire products	x	x	x	10	x
Grand total	110,502	114,103	65,480	48,623	.

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).