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Steel, Tubular Products and Steel Wire

December 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

December 2011

- Monthly production of primary steel and pig iron increased 11.4% in December 2011 to 1,044,252 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products increased 6.3% to 966,486 metric tonnes.
- Between November 2011 and December 2011, production of steel pipe and tubing decreased 10.5% to 188,472 metric tonnes.
- Total shipments of steel wire and specified wire products decreased 18.7% to 28,202 metric tonnes in December 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								
December								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	0	860	5,581	5,819	6,487	x	0	.
21 Motor vehicles and parts	113	0	149	6	.	4,209	0	.
22 Railway operating	0	.	.	.	0	0	0	.
23 Railroad cars and locomotives	.	0	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	54	1,159	1,396	47,184	x	0	.
32 Metal building systems	.	0	0	0	0	0	.	.
33 Contractors' products	.	0	0	.	369	396	183	.
34 Miscellaneous stamping and coating	0	0	59	60	.	909	.	.
41 Natural resources and extractive industries	.	27	0	0	831	8,350	0	.
51 Agricultural equipment	.	0	0	0	0	170	.	0
52 Non electrical machinery	.	0	907	0	.	6,763	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	0	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	0	.	.	.	35	590	x	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	113	941	7,855	7,281	54,906	32,657	x	0
Total domestic alloy shipments	0	.	.	.	.	4,654	x	.
81 Exports to the United States	x	480	3,275	4,183	0	22,602	x	.
82 Exports to other countries (excluding United States)	x	0	39	0	0	18,346	x	0
Total disposition	56,193	1,421	11,169	11,464	54,906	73,605	x	0
Total alloy shipments	0	.	.	.	.	7,991	x	.
Producers interchange, for sale	x	.	0	.	.	490	115	.
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							
December							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	x	15,306	246,974	26,250	662	36,232	356,300
21 Motor vehicles and parts	595	0	21,438	5,616	0	35,148	67,274
22 Railway operating	.	0	0	.	.	0	0
23 Railroad cars and locomotives	.	1,230	0	.	.	.	1,230
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	x	2,568	1,686	0	.	4,012	58,618
32 Metal building systems	.	.	0	.	.	1,863	1,863
33 Contractors' products	0	2,872	1,771	711	.	27,749	34,051
34 Miscellaneous stamping and coating	13	0	2,705	2,196	.	15,303	21,245
41 Natural resources and extractive industries	87	0	0	0	.	1	9,296
51 Agricultural equipment	59	196	0	0	.	0	425
52 Non electrical machinery	0	79	307	0	.	0	8,056
53 Electrical machinery	.	.	0	1,557	.	1,472	3,029
54 Industrial packaging material	.	.	0	2,522	0	0	2,522
61 Pipes and tubes	0	0	81,142	723	.	1,006	82,871
62 Wire and wire products	x	.	131	78	.	66	11,877
63 Containers and closures	0	.	279	466	192	.	937
64 Appliances and utensils industries	.	.	0	745	.	479	1,224
70 Miscellaneous industries	185	0	0	.	.	.	185
Total domestic shipments	x	22,251	356,433	40,864	854	123,331	661,003
Total domestic alloy shipments	167	0	.	0	.	.	x
81 Exports to the United States	1,107	6,671	x	11,673	10,482	32,224	243,588
82 Exports to other countries (excluding United States)	19	2,331	x	1,374	3,090	8,918	61,895
Total disposition	x	31,253	439,693	53,911	14,426	164,473	966,486
Total alloy shipments	493	0	.	0	.	.	x
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	0	x	x	.	0	4,710

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	31	18,448	70,332	67,228	40,801	x	0	.
21 Motor vehicles and parts	2,017	7	2,138	174	.	64,265	0	.
22 Railway operating	0	.	.	.	0	524	0	.
23 Railroad cars and locomotives	.	0	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	765	12,486	26,863	462,156	x	0	.
32 Metal building systems	.	0	0	0	827	81	.	.
33 Contractors' products	.	0	0	.	10,924	4,568	1,725	.
34 Miscellaneous stamping and coating	0	16	3,015	3,115	.	6,970	.	.
41 Natural resources and extractive industries	.	1,776	79	14	14,916	125,418	0	.
51 Agricultural equipment	.	0	2	18	0	2,848	.	59
52 Non electrical machinery	.	0	17,948	58	.	94,691	0	.
53 Electrical machinery	.	.	.	.	.	222	.	.
54 Industrial packaging material	.	.	.	.	.	0	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	385	.	.	.	35	6,334	x	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	2,433	21,012	106,000	97,470	529,659	423,959	x	59
Total domestic alloy shipments	0	.	.	.	.	65,802	x	.
81 Exports to the United States	x	10,437	43,948	55,526	35	268,070	x	.
82 Exports to other countries (excluding United States)	x	0	1,132	22	0	244,483	x	0
Total disposition	977,048	31,449	151,080	153,018	529,694	936,512	x	59
Total alloy shipments	0	.	.	.	.	113,135	x	.
Producers interchange, for sale	x	.	0	.	.	5,910	643	.
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	205,486	2,445,845	238,388	18,108	376,327	3,612,861
21 Motor vehicles and parts	8,318	0	346,663	82,133	0	428,429	934,144
22 Railway operating	.	0	0	.	.	0	524
23 Railroad cars and locomotives	.	8,857	0	.	.	.	8,857
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	x	48,168	37,375	0	.	25,846	x
32 Metal building systems	.	.	0	.	.	26,423	27,331
33 Contractors' products	0	3,465	53,279	21,899	.	256,792	352,652
34 Miscellaneous stamping and coating	297	0	60,323	41,587	.	200,158	315,481
41 Natural resources and extractive industries	688	17	3	0	.	28	142,939
51 Agricultural equipment	636	5,043	0	0	.	0	8,606
52 Non electrical machinery	120	854	8,347	0	.	0	122,018
53 Electrical machinery	.	.	1,564	17,392	.	19,421	38,599
54 Industrial packaging material	.	.	231	52,372	0	0	52,603
61 Pipes and tubes	0	0	1,143,734	6,839	.	14,592	1,165,165
62 Wire and wire products	x	.	1,809	961	.	858	x
63 Containers and closures	0	.	1,213	8,825	6,413	.	16,451
64 Appliances and utensils industries	.	.	0	18,378	.	12,663	31,041
70 Miscellaneous industries	2,053	0	0	.	.	.	2,053
Total domestic shipments	x	271,890	4,100,386	488,774	24,521	1,361,537	7,668,485
Total domestic alloy shipments	2,917	0	.	0	.	.	x
Exports² (for final sale)							
81 Exports to the United States	14,890	149,970	x	173,008	185,363	407,740	3,632,864
82 Exports to other countries (excluding United States)	33	38,713	x	18,991	10,574	118,637	777,761
Total disposition	x	460,573	5,363,965	680,773	220,458	1,887,914	12,079,110
Total alloy shipments	8,528	0	.	0	.	.	x
Producers interchange, for sale	0	.	177	0	.	0	x
Exports for conversion and return ²	.	.	0	0	.	73	73
Imports by producers (including conversion)	.	17,331	x	x	.	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

	December		Year-to-date	
	2010	2011	2010	2011
metric tonnes				
Production of pig iron	680,925	636,940	7,665,978	7,322,629

Table 1-4

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

	December		Year-to-date	
	2010	2011	2010	2011
	metric tonnes			
Pig iron including pre-reduced iron	702,019	631,118	7,622,262	7,584,342
Scrap				
Own make	123,841	126,649	1,435,803	1,427,436
Purchased	425,624	411,614	5,552,519	5,482,815
Total, pig iron and scrap products	1,251,484	1,169,381	14,610,584	14,494,593

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			
December				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	410,921	380,135	x	x
Basic oxygen furnace	713,594	664,117	x	x
Steel, primary forms - Total	1,124,515	1,044,252	204,815	119,323
Included in "Steel primary forms total" above				
Continuous cast steel	1,110,799	1,016,162	195,823	94,814

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	5,347,948	5,412,363	x	x
Basic oxygen furnace	7,654,864	7,478,396	x	x
Steel, primary forms - Total	13,002,812	12,890,759	3,177,434	1,871,887
Included in "Steel primary forms total" above				
Continuous cast steel	12,872,925	12,698,031	3,068,493	1,726,100

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

	Production	Shipments for sale		
		Domestic shipments ¹	Exports	Total shipments
	metric tonnes			
December				
Total, pipe and tubing	188,472	165,350	56,718	222,069
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	3,487	4,251	0	4,251
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	23,797
over 16" (40.64 cm) outside diameter	x	x	636	x
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	x	x	12,389
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	2,154	1,364	628	1,992
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	158	x	53	x
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	310	368	34	402
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	139	x
over 16" (40.64 cm) outside diameter	x	x	0	x
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	15,948	9,119	5,928	15,047
Mechanical tubing, welded, produced from cold rolled	4,271	3,694	1,236	4,930
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	44,941	10,604	55,546
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	7,172	x	x
Other tubular products	x	1,197	346	1,542

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		
		Domestic shipments ¹	Exports	Total shipments
		metric tonnes		
Year-to-date				
Total, pipe and tubing	2,315,355	1,634,059	916,393	2,550,452
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	x	35,737
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	201,663
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	130,805
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	28,038	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	x	x
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	206,068	149,168	76,929	226,098
Mechanical tubing, welded, produced from cold rolled	80,718	54,212	17,903	72,115
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	450,273	x	x
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	111,195	x	x
Other tubular products	x	18,023	7,596	25,618

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	Domestic	Exports	
		shipments	shipments		
metric tonnes					
December					
Barbed wire	x	x	x	0	.
Uncoated steel wire	13,816	13,835	6,194	7,641	.
Galvanized steel wire	6,174	6,408	2,766	3,642	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	497	438	x	x	514
Wire mesh, bright or uncoated and galvanized	3,224	x	2,133	x	2,081
Wire rope	x	x	x	x	x
Nails and staples	x	1,664	401	1,263	x
Wire roofing nails of a length of 25 mm or more, iron or steel	1,898	1,663	400	1,263	1,714
Staples of iron or steel	x	1	1	0	x
All other wire products	x	x	x	1	x
Grand total	28,177	28,202	14,393	13,809	.

1. Totals may not add due to rounding.

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.

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	219,048	222,847	97,273	125,574	.
Galvanized steel wire	86,600	87,348	38,777	48,571	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	x	x	x	x	14,920
Wire mesh, bright or uncoated and galvanized	41,517	x	x	x	48,930
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	30,802	x	x	x	x
Staples of iron or steel	x	7	7	0	x
All other wire products	x	x	x	20	x
Grand total	437,403	447,921	240,304	207,617	.

1. Totals may not add due to rounding.

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.

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).