

Catalogue no. 41-019-X

Steel, Tubular Products and Steel Wire

May 2008



Statistics
Canada

Statistique
Canada

Canada

How to obtain more information

For information about this product or the wide range of services and data available from Statistics Canada, visit our website at www.statcan.ca, e-mail us at infostats@statcan.ca, or telephone us, Monday to Friday from 8:30 a.m. to 4:30 p.m., at the following numbers:

Statistics Canada's National Contact Centre

Toll-free telephone (Canada and the United States):

Inquiries line	1-800-263-1136
National telecommunications device for the hearing impaired	1-800-363-7629
Fax line	1-877-287-4369

Local or international calls:

Inquiries line	1-613-951-8116
Fax line	1-613-951-0581

Depository Services Program

Inquiries line	1-800-635-7943
Fax line	1-800-565-7757

To access this product

This product, Catalogue no. 41-019-X, is available free in electronic format. To obtain a single issue, visit our website at www.statcan.ca and select "Publications" > "Free Internet publications."

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, Statistics Canada has developed *standards of service* that its employees observe. To obtain a copy of these service standards, please contact Statistics Canada toll-free at 1-800-263-1136. The service standards are also published on www.statcan.ca under "About us" > "Providing services to Canadians."

Steel, Tubular Products and Steel Wire

May 2008

Published by authority of the Minister responsible for Statistics Canada

© Minister of Industry, 2008

All rights reserved. The content of this electronic publication may be reproduced, in whole or in part, and by any means, without further permission from Statistics Canada, subject to the following conditions: that it be done solely for the purposes of private study, research, criticism, review or newspaper summary, and/or for non-commercial purposes; and that Statistics Canada be fully acknowledged as follows: Source (or "Adapted from", if appropriate): Statistics Canada, year of publication, name of product, catalogue number, volume and issue numbers, reference period and page(s). Otherwise, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form, by any means—electronic, mechanical or photocopy—or for any purposes without prior written permission of Licensing Services, Client Services Division, Statistics Canada, Ottawa, Ontario, Canada K1A 0T6.

July 2008

Catalogue no. 41-019-X, vol. 4, no. 5

ISSN 1712-980X

Frequency: Monthly

Ottawa

La version française de cette publication est disponible sur demande (n° 41-019-X au catalogue).

Note of appreciation

Canada owes the success of its statistical system to a long standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

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

Table of contents

Highlights	4
Related products	5
Statistical tables	
1 Steel primary forms and pig iron	7
1-1 Disposition of net shipments of rolled steel products, by product, monthly 2008	7
1-2 Disposition of net shipments of rolled steel products, by product, year-to-date 2008	9
1-3 Production of pig iron	10
1-4 Pig iron and scrap charged to steel furnaces	11
1-5 Production and shipments of steel, primary forms, monthly	11
1-6 Production and shipments of steel, primary forms, year-to-date	11
2 Steel pipe and tubing	12
2-1 Production and shipments, monthly 2008	12
2-2 Production and shipments, year-to-date 2008	13
3 Steel and specified wire products	14
3-1 Factory shipments, monthly	14
3-2 Factory shipments, year-to-date	14
Data quality, concepts and methodology	
Concepts, methodology and data quality	15
Definitions	17

Highlights

May 2008

- Monthly production of primary steel and pig iron increased 4.3% in May 2008 to 1,469,279 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products fell 9.9% to 1,374,572 metric tonnes.
- Between April 2008 and May 2008, production of steel pipe and tubing declined 1.6% to 214,658 metric tonnes.
- Total shipments of steel wire and specified wire products declined 10.4% to 54,394 metric tonnes in May 2008.

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 ¹ of rolled steel products, by product, monthly 2008

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								
May								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	0	x	9,320	x	7,050	22,999	27	.
21 Motor vehicles and parts	411	.	.	.	.	10,735	0	.
22 Railway operating	0	.	.	.	.	0	0	.
23 Railroad cars and locomotives	.	x	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	x	3,489	3,851	47,073	17,504	0	.
32 Metal building systems	.	.	.	.	0	0	.	.
33 Contractors' products	.	0	0	.	312	481	62	.
34 Miscellaneous stamping and coating	0	0	188	x	.	2,036	.	.
41 Natural resources and extractive industries	.	.	0	0	1,145	12,144	0	.
51 Agricultural equipment	.	0	0	5	0	43	.	.
52 Non electrical machinery	.	17	9	0	.	262	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	0	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	0	.	.	.	0	2,087	22,154	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	0	.	.	0	1,041	.	.
Total domestic shipments	411	x	13,006	11,292	55,580	69,332	22,243	0
Total domestic alloy shipments	0	.	.	.	.	10,444	0	.
Exports ² (for final sale)								
81 Exports to the United States	x	x	12,926	8,337	0	33,034	41,774	.
82 Exports to other countries (excluding United States)	x	90	157	.	0	8,099	63	0
Total disposition	91,694	x	26,089	19,629	55,580	110,465	64,080	0
Total alloy shipments	0	.	.	.	.	15,553	0	.
Producers interchange, for sale	x	.	0	.	.	1,266	67	.
Exports for conversion and return ²	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	4,980	.	.	.	.	.	0	.

See footnotes 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 2008

SDC No.	Cold finished bars	Plates ³	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							
May							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	2,802	x	174,491	x	1,008	41,362	340,060
21 Motor vehicles and parts	x	0	40,100	x	0	46,886	109,802
22 Railway operating	.	0	.	.	.	.	0
23 Railroad cars and locomotives	.	x	0	.	.	.	x
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	x	x	x	x	.	512	83,238
32 Metal building systems	.	.	0	.	.	2,980	2,980
33 Contractors' products	x	x	6,968	1,458	.	x	57,738
34 Miscellaneous stamping and coating	x	107	2,653	4,329	.	x	29,674
41 Natural resources and extractive industries	60	0	0	0	.	40	13,389
51 Agricultural equipment	x	x	0	113	.	.	1,136
52 Non electrical machinery	0	496	365	0	.	0	1,149
53 Electrical machinery	.	.	.	2,093	.	304	2,397
54 Industrial packaging material	.	.	x	x	0	0	x
61 Pipes and tubes	0	0	121,920	x	.	x	130,850
62 Wire and wire products	x	.	800	171	.	x	25,759
63 Containers and closures	0	.	x	x	3,885	.	x
64 Appliances and utensils industries	.	.	.	5,657	.	2,785	8,442
70 Miscellaneous industries	134	.	0	.	.	.	1,175
Total domestic shipments	x	51,766	352,186	61,001	4,893	168,419	819,207
Total domestic alloy shipments	732	0	.	0	.	.	11,176
Exports ² (for final sale)							
81 Exports to the United States	1,059	x	168,244	26,856	x	35,848	443,582
82 Exports to other countries (excluding United States)	0	0	62,842	2,535	x	20,230	111,883
Total disposition	7,076	x	583,272	90,392	19,079	224,497	1,374,672
Total alloy shipments	732	0	.	0	.	.	16,285
Producers interchange, for sale	0	.	1,587	x	.	5	98,584
Exports for conversion and return ²	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	1,047	9,863	3,524	.	0	19,414

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

2. These data include exports reported by steel producers only and are not the same as published in the Exports by commodities, catalogue number 65-004-XPB.

3. 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 shipments ¹ of rolled steel products, by product, year-to-date 2008

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	24	x	50,542	x	40,017	120,343	668	.
21 Motor vehicles and parts	1,393	.	.	.	.	62,894	156	.
22 Railway operating	0	.	.	.	.	0	0	.
23 Railroad cars and locomotives	.	x	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	x	11,205	19,213	234,275	78,811	0	.
32 Metal building systems	.	.	.	.	0	0	.	.
33 Contractors' products	.	0	0	.	312	x	736	.
34 Miscellaneous stamping and coating	0	0	2,384	x	.	x	.	.
41 Natural resources and extractive industries	.	.	54	0	5,991	55,968	0	.
51 Agricultural equipment	.	18	60	77	0	1,338	.	.
52 Non electrical machinery	.	17	9	0	.	1,176	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	0	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	350	.	.	.	0	12,118	134,412	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	0	.	.	0	4,905	.	.
Total domestic shipments	1,767	x	64,254	64,486	280,595	347,827	135,972	0
Total domestic alloy shipments	0	.	.	.	.	86,493	0	.
Exports ² (for final sale)								
81 Exports to the United States	x	x	75,067	50,377	39	168,057	210,063	.
82 Exports to other countries (excluding United States)	x	418	619	.	0	77,830	x	0
Total disposition	599,339	x	139,940	114,863	280,634	593,714	x	0
Total alloy shipments	0	.	.	.	.	120,370	0	.
Producers interchange, for sale	x	.	0	.	.	6,286	101	.
Exports for conversion and return ²	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	12,601	.	.	.	.	.	0	.

See footnotes 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 2008

SDC No.	Cold finished bars	Plates ³	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	x	832,632	x	4,536	235,276	1,735,303
21 Motor vehicles and parts	x	0	251,902	x	0	251,999	628,924
22 Railway operating	.	0	.	.	.	.	0
23 Railroad cars and locomotives	.	x	0	.	.	.	x
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	x	x	x	x	.	x	393,849
32 Metal building systems	.	.	0	.	.	13,386	13,386
33 Contractors' products	x	x	25,361	x	.	x	223,299
34 Miscellaneous stamping and coating	x	x	26,579	21,741	.	x	155,747
41 Natural resources and extractive industries	322	0	0	0	.	259	62,594
51 Agricultural equipment	x	x	123	764	.	.	x
52 Non electrical machinery	0	x	1,161	0	.	55	x
53 Electrical machinery	.	.	.	10,988	.	1,553	12,541
54 Industrial packaging material	.	.	x	x	47	0	x
61 Pipes and tubes	171	x	850,761	x	.	x	877,762
62 Wire and wire products	x	.	x	580	.	x	153,947
63 Containers and closures	0	.	x	x	45,709	.	x
64 Appliances and utensils industries	.	.	.	32,118	.	x	x
70 Miscellaneous industries	1,063	.	0	.	.	.	5,968
Total domestic shipments	x	235,357	2,022,374	351,078	50,292	803,862	4,417,318
Total domestic alloy shipments	1,570	0	.	0	.	.	88,063
Exports ² (for final sale)							
81 Exports to the United States	6,111	x	679,084	144,670	x	188,887	2,244,348
82 Exports to other countries (excluding United States)	10	x	151,999	x	x	69,427	408,329
Total disposition	x	x	2,853,457	x	109,361	1,062,176	7,069,995
Total alloy shipments	1,747	0	.	0	.	.	122,117
Producers interchange, for sale	0	.	12,651	x	.	5	454,401
Exports for conversion and return ²	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	11,972	62,583	19,460	.	0	106,616

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

2. These data include exports reported by steel producers only and are not the same as published in the Exports by commodities, catalogue number 65-004-XPB.

3. 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

	May		Year-to-date	
	2007	2008	2007	2008
metric tonnes				
Production of pig iron	732,726	851,014	3,662,522	4,168,303

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

	May		Year-to-date	
	2007	2008	2007	2008
	metric tonnes			
Pig iron including pre-reduced iron	733,002	803,613	3,798,442	4,038,323
Scrap				
Own make	172,352	156,896	827,212	692,835
Purchased	534,931	656,916	2,775,265	3,052,907
Total, pig iron and scrap products	1,440,285	1,617,425	7,400,919	7,784,065

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

	Production		Shipments	
	2007	2008	2007	2008
	metric tonnes			
May				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	568,711	615,168	83,674	x
Basic oxygen furnace	746,599	854,111	44,880	x
Steel, primary forms - Total	1,315,310	1,469,279	128,554	219,985
Included in "Steel primary forms total" above				
Continuous cast steel	1,296,926	1,456,414	124,116	204,260

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

	Production		Shipments	
	2007	2008	2007	2008
	metric tonnes			
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	2,801,167	2,823,550	439,640	x
Basic oxygen furnace	3,941,252	4,248,291	147,873	x
Steel, primary forms - Total	6,742,419	7,071,841	587,513	1,194,960
Included in "Steel primary forms total" above				
Continuous cast steel	6,665,665	7,005,410	565,326	1,127,758

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2008

	Production	Shipments for sale		Total shipments
		Domestic shipments ¹	Exports ²	
metric tonnes				
May				
Total, pipe and tubing	214,659	97,589	113,424	211,013
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	2,768	4,881	0	4,881
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	3,975	3,613	1,322	4,935
over 16" (40.64 cm) outside diameter	41,408	6,001	24,532	30,533
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	24,645	14,379	12,629	27,008
over 16" (40.64 cm) periphery	51,764	16,543	35,171	51,714
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	7,010	2,730	4,377	7,107
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,589	1,796	1,107	2,903
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	2,691	390	1,519	1,909
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	709	974	96	1,070
over 16" (40.64 cm) outside diameter	x	527	104	631
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	15,090	11,735	5,723	17,458
Mechanical tubing, welded, produced from cold rolled	9,464	3,952	2,613	6,565
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	41,860	24,110	19,298	43,408
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	8,165	3,976	3,823	7,799
Other tubular products	x	1,982	1,110	3,092

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

2. As reported by respondents to this survey. For total exports see Exports by commodity, catalogue number 65-004-XPB.

Table 2-2
Steel pipe and tubing — Production and shipments, year-to-date 2008

	Production	Shipments for sale		
		Domestic shipments ¹	Exports ²	Total shipments
	metric tonnes			
Year-to-date				
Total, pipe and tubing	1,114,150	557,428	593,173	1,150,601
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	10,917	21,985	1,330	23,315
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	24,714	39,308	1,958	41,266
over 16" (40.64 cm) outside diameter	245,692	30,809	179,220	210,029
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	109,925	66,563	58,563	125,126
over 16" (40.64 cm) periphery	264,011	83,656	180,372	264,028
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	30,793	13,197	20,031	33,228
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	7,174	x	x	8,609
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	10,931	x	x	8,235
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	3,451	x	x	3,897
over 16" (40.64 cm) outside diameter	x	x	x	3,170
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	95,404	67,251	29,968	97,219
Mechanical tubing, welded, produced from cold rolled	55,266	22,485	13,938	36,423
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	202,829	164,034	78,960	242,994
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	44,491	26,080	13,044	39,124
Other tubular products	x	9,873	4,065	13,938

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

2. As reported by respondents to this survey. For total exports see Exports by commodity, catalogue number 65-004-XPB.

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

	Shipments				Production
	2007	2008			
		Total shipments	Domestic shipments	Exports ²	
	metric tonnes				
May					
Barbed wire	x	x	x	x	.
Uncoated steel wire	19,084	18,203	10,118	8,085	.
Galvanized steel wire	13,267	14,788	6,381	8,407	.
Other coated steel wire	x	x	80	x	.
Farm fencing and wire chain link fabric	1,491	2,881	x	x	2,848
Wire mesh, bright or uncoated and galvanized	4,927	5,771	x	x	6,084
Wire rope	3,240	4,502	x	x	4,436
Nails and staples	5,130	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	5,034	2,287	818	1,469	1,613
Staples of iron or steel	x	x	x	x	x
All other wire products	x	1,619	1,613	6	1,641
Grand total	49,554	54,394	32,340	22,054	.

1. Totals may not add due to rounding.

2. As reported by respondents to this survey. For total exports see Exports by commodity, catalogue number 65-004-XPB.

Table 3-2
Steel and specified wire products — Factory shipments 1, year-to-date

	Shipments				Production
	2007	2008			
		Total shipments	Domestic shipments	Exports ²	
	metric tonnes				
Barbed wire	x	x	x	x	.
Uncoated steel wire	88,424	97,263	51,643	45,620	.
Galvanized steel wire	65,567	72,671	29,731	42,940	.
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	22,792	27,985	x	x	28,814
Wire rope	16,853	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	21,783	10,089	3,336	6,753	8,013
Staples of iron or steel	x	x	x	x	x
All other wire products	x	x	x	22	x
Grand total	235,522	272,081	157,008	115,073	.

1. Totals may not add due to rounding.

2. As reported by respondents to this survey. For total exports see Exports by commodity, catalogue number 65-004-XPB.

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.

More detailed information is available from the Annual Survey of Manufactures and Logging, CANSIM Table 301-0003. Specific enquiries should be directed to: The Marketing and Dissemination Section, Manufacturing, Construction and Energy Division, Statistics Canada, Ottawa, Ontario, K1A 0T6 (Telephone: 1-866-873-8789 or (613) 951-9497; Fax: (613) 951-9499; Internet: manufact@statcan.ca).