



Monthly Survey of Manufacturing

November 2003



How to obtain more information

Specific inquiries about this product and related statistics or services should be directed to: Marketing and Dissemination Section, Manufacturing, Construction & Energy Division, Statistics Canada, Ottawa, Ontario, K1A 0T6 (telephone: (613) 951-9497, toll free: 1-866-873-8789, fax.: (613) 951-9499, e-mail: manufact@statcan.ca).

For information on the wide range of data available from Statistics Canada, you can contact us by calling one of our toll-free numbers. You can also contact us by e-mail or by visiting our Web site.

National inquiries line	1 800 263-1136
National telecommunications device for the hearing impaired	1 800 363-7629
Depository Services Program inquiries	1 800 700-1033
Fax line for Depository Services Program	1 800 889-9734
E-mail inquiries	infostats@statcan.ca
Web site	www.statcan.ca

Ordering and subscription information

This product, Catalogue no. 31-001-XIE, is published monthly in electronic format on the Statistics Canada Internet site at a price of CDN \$17.00 per issue and CDN \$158.00 for a one-year subscription. To obtain single issues, visit our Web site at www.statcan.ca, and select Products and Services.

This product is also available in print through a Print-on-Demand service, at a price of CDN \$49.00 per issue and CDN \$246.00 for a one-year subscription. The following additional shipping charges apply for delivery outside Canada:

	Single issue	Annual subscription
United States	CDN \$6.00	CDN \$72.00
Other countries	CDN \$10.00	CDN \$120.00

All prices exclude sales taxes.

The printed version can be ordered by

- Phone (Canada and United States) **1 800 267-6677**
- Fax (Canada and United States) **1 877 287-4369**
- E-mail **infostats@statcan.ca**
- Mail Statistics Canada
Dissemination Division
Circulation Management
120 Parkdale Avenue
Ottawa, Ontario K1A 0T6
- And, in person at the Statistics Canada Regional Centre nearest you.

When notifying us of a change in your address, please provide both old and new addresses.

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner and in the official language of their choice. To this end, the Agency has developed standards of service which its employees observe in serving its clients. To obtain a copy of these service standards, please contact Statistics Canada toll free at 1 800 263-1136.



Statistics Canada
Manufacturing, Construction & Energy Division
Monthly Survey of Manufacturing Section

Monthly Survey of Manufacturing

November 2003

Published by authority of the Minister responsible for Statistics Canada

© Minister of Industry, 2004

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission from Licence Services, Marketing Division, Statistics Canada, Ottawa, Ontario, Canada K1A 0T6.

January 2004

Catalogue no. 31-001-XIE, Vol. 57, No. 11

ISSN 1496-2306

Frequency: Monthly

Ottawa

La version française de cette publication est disponible sur demande (n° 31-001-XIF 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.

Symbols

The following symbols are used in this Statistics Canada publication:

- . not available for any reference period.
- .. not available for a specific reference period.
- ... not applicable.
- x suppressed to meet the confidentiality requirements of the Statistics Act.

Notice to users

Estimates in this publication are subject to revision to accommodate newly received information. It is advisable to always use data from the most recent issue.

In the following tables, some components may not add exactly to the total, because of rounding.

For a complete description of concepts, methodology and definitions, please refer to the "Survey Documentation" section at the end of this publication or consult Statistics Canada's Website at www.statcan.ca/english/sdds/2101.htm .

A note on CANSIM

The data published in Monthly Survey of Manufacturing (Tables 304-0014 and 304-0015) (Catalogue No. 31-001-XIE) are also available in machine-readable form through CANSIM (Canadian Socio-Economic Information Management System). Users interested in accessing data via CANSIM should contact one of Statistics Canada's regional centres at the numbers listed on the inside front cover of this Publication, or contact the Marketing Division, Statistics Canada R.H. Coats Building, Ottawa, Ontario, K1A 0T6 (613) 951-8200.

Acknowledgement

This publication was prepared under the direction of:

- **Marcelle Dion**, Director, Manufacturing, Construction & Energy Division
- **Daniela Ravindra**, Chief, Monthly Survey of Manufacturing
- **Russell Kowaluk**, Economist, is the author of this publication.

Table of contents

	Page
Highlights	6
Products and services	10
Statistical Tables	
1. All Manufacturing Industries	11
2. Motor Vehicle, and Parts and Accessories Industries	12
3. All Manufacturing Industries except Motor Vehicle, Parts and Accessories Industries	13
4. Shipments by Major Group and Selected Industries	14
5. Inventories by Major Group and Selected Industries	16
6. Unfilled Orders by Selected Major Group and Industries	18
7. New Orders by Selected Major Group and Industries	20
8. Shipments and Inventory Owned for Selected Industries, Unadjusted	22
9. Inventories owned by stage of fabrication	30
10. Shipments by Major Group and Province, Unadjusted	31
Survey Documentation	37

Highlights

In November, motor vehicle manufacturing dragged down total shipments by 0.5% to \$42.2 billion, the second consecutive decline. Excluding the recently volatile motor vehicle and parts industries, shipments edged up a modest 0.1%.

Only 9 of the 21 manufacturing industries, accounting for 57% of total shipments, posted decreases in November. Although the majority of manufacturers reported higher shipment activity during the month, most increases were modest.

Ontario's manufacturers reduce shipments again

Manufacturing in Ontario retracted by \$353 million (-1.6%) to \$22.3 billion, leading the four provinces and territories that reported lower shipments in November. A slowdown in motor vehicle manufacturing, coupled with decreases in shipments of petroleum and food, contributed to Ontario's third decline in the last four months.

Quebec manufacturers reported a \$15.9 million (-0.2%) decline in shipments to \$9.7 billion, mostly the result of decreases in production of aerospace products and food. Fewer shipments of transportation equipment and fabricated metal products contributed to Manitoba's \$15.6 million (-1.6%) decline in November.

US manufacturers outpace Canada

The SARS virus, BSE (mad cow disease), forest fires, and the soaring value of the dollar Canadian were among several hurdles facing the Canadian economy in 2003. In the first 11 months of the year, shipments declined 1.3% from the same period of 2002. This was in sharp contrast to the United States, Canada's largest trading partner.

Following sluggish economic growth in recent years, several sectors of the US economy, manufacturing included, posted strong gains in 2003. From January to November, US shipments rose 2.2% from 2002, increasing in six of the last seven months. Unfilled orders have been on a steady rise since August.

While the US economy appears to be on the road to recovery, there are concerns that the strengthening value of the Canadian dollar may curb demand for Canada's manufactured goods. In November, the dollar closed in on a ten-year high of 77 cents against the US greenback, up almost 20% since the start of the year. Just over 50% of Canada's manufactured outputs are destined for international markets.

Shipments by province and territory

	October 2003	November 2003	October to November 2003
Seasonally adjusted			
	\$ millions		% change
Newfoundland and Labrador	189	195	3.3
Prince Edward Island	114	115	1.1
Nova Scotia	707	745	5.5
New Brunswick	1,001	1,093	9.2
Quebec	9,760	9,744	-0.2
Ontario	22,660	22,307	-1.6
Manitoba	989	973	-1.6
Saskatchewan	652	653	0.2
Alberta	3,569	3,563	-0.2
British Columbia	2,786	2,815	1.0
Yukon, Northwest Territories and Nunavut	6	5	-11.4

Job growth weakened in 2003

According to the year-end report of the Labour Force Survey, manufacturers hired fewer employees in 2003. Since November 2002, the number of manufacturing jobs declined by 82,000 (-3.5%), losses that were largely concentrated in Quebec and Ontario.

On a monthly basis, manufacturing employment edged down 0.2% (-4,100 jobs) in December, following November's 1.0% boost. At year's end, there were just under 2.3 million people employed in Canadian factories.

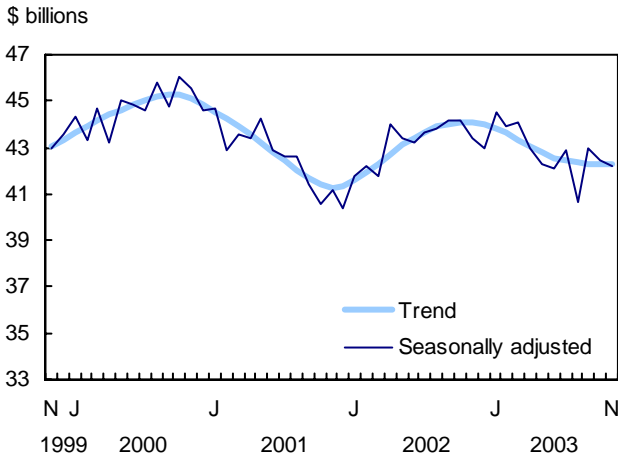
Fewer motor vehicles and aircraft manufactured in November

Manufacturers of motor vehicles reported a 3.6% drop in shipments to \$4.8 billion in November, the second decline in a row. Some assembly plants were temporarily closed for retooling, while others faced production slowdowns for inventory control measures. Year-to-date shipments are down 5.8% from 2002.

Other industries reporting lower shipments included aerospace products and parts (-11.6%), food (-1.6%) and motor vehicle parts (-2.8%).

Partly offsetting the overall decline in total manufacturing, shipments of petroleum and coal products rose 2.2% to \$2.8 billion in November. Higher sales of petroleum products for the winter season contributed to the first increase since August. Boosts in manufacturing of machinery (+3.0%) and computers (+3.8%) also contributed to counteracting November's overall decline.

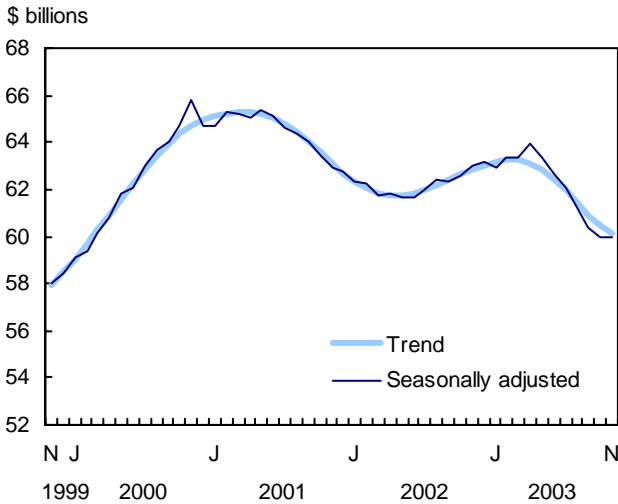
Shipments decline for the second consecutive month



Inventories remain steady

Following six consecutive declines, manufacturers held inventories constant at \$59.9 billion in November, the lowest level since February 2000. As the year draws to a close, inventories may be bottoming out, as the rate of depletion has slowed in recent months. Inventories are down 6.2% since the latest high of \$63.9 billion in April.

Inventories maintain their level in November



By stage of fabrication, raw materials inventories continued an eight-month decline, falling 0.6% to \$25.9 billion. This was offset by November's 1.1% rise in goods-in-process inventories, ending a six-month slide. Meanwhile, finished-product inventories were largely unchanged at \$18.9 billion.

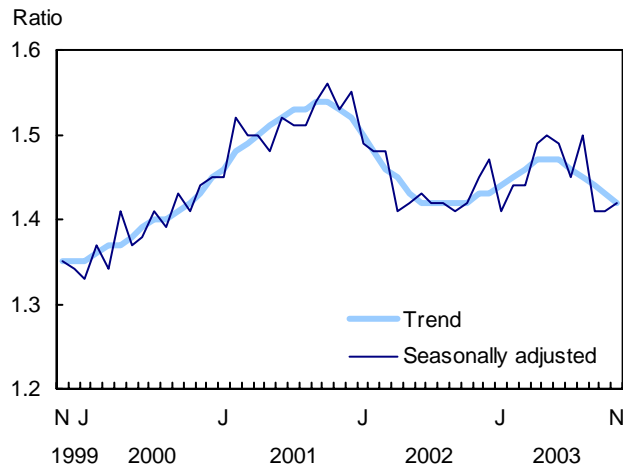
Higher inventories of chemical products (+2.1%) and primary metals (+1.2%) were offset by declines in the computer (-1.5%) and railroad rolling stock industries (-5.3%).

The inventory-to-shipment ratio advances slightly

November's decrease in shipments contributed to the slight rise in the inventory-to-shipment ratio to 1.42 from October's 1.41. Despite November's upward movement, the ratio has been trending down during the second half of 2003, as manufacturers continued their efforts to keep fewer inventories on hand, despite some erosion in shipment activity.

The finished-product inventory-to-shipment ratio remained stable at 0.45 for the second consecutive month. This ratio is a measure of the time that would be required in order to exhaust finished-products if shipments were to remain at their current level.

Lower shipments push up the inventory-to-shipment ratio

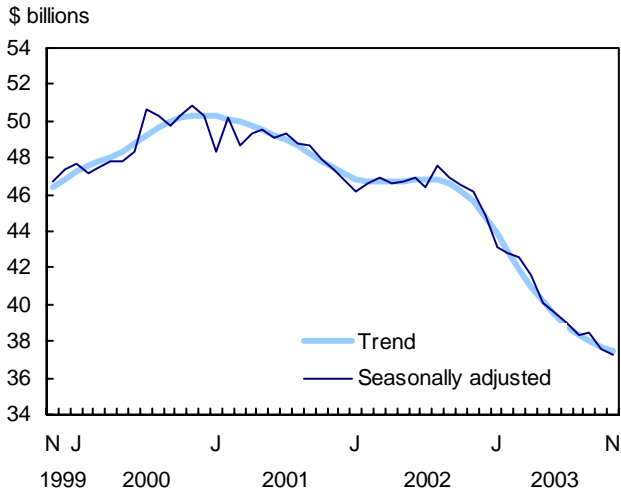


Fewer orders on the books

Despite the recent strength of the US economy, Canadian manufacturers posted a 0.8% drop in unfilled orders in November. Total unfilled orders were \$37.2 billion, the lowest level in over six years. Contract cancellations and continued weak sales were reported by some industries, as the Canadian dollar soared to a 10-year high during the month.

Leading all industries, unfilled orders of the aerospace products and parts fell another 3.2% to \$10.5 billion in November. Orders have declined in 25 of the last 26 months, as ongoing weakness in the commercial aircraft sector continued to besiege the aerospace industry. Excluding the aerospace products and parts industry, total unfilled orders edged up 0.1%.

Unfilled orders continue to decline



Following September's big boost in unfilled orders of computer products, manufacturers in the high tech sector have lost ground in recent months. Orders fell back sharply in October (-6.4%) and November (-4.1%). Offsetting some of the decline, increases in unfilled orders were reported by the plastics and rubber products (+13.7%) and machinery (+1.2%) industries.

New orders rise

A bright note in November's report, manufacturers indicated a 1.0% increase in new orders to \$41.9 billion. New orders have increased in four of the last six months, and the trend continued to gradually improve. The rise in new orders was wide reaching, including the plastics and rubber products, machinery and computer industries.

Note to readers

In addition to current-month estimates, data for the previous three months are regularly revised. Factors influencing revisions include late receipt of company data, incorrect information reported earlier, replacement of estimates with actual figures (once available), and seasonal adjustments. Consult the appropriate CANSIM tables for revised data.

Non-durable goods industries include food, beverage and tobacco products, textile mills, textile product mills, leather and allied products, paper, printing and related support activities, petroleum and coal products, chemicals and plastic and rubber products.

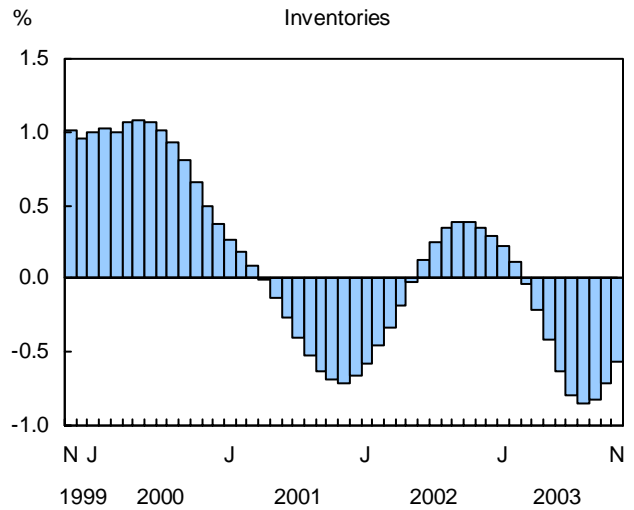
Durable goods industries include clothing, wood products, non-metallic mineral products, primary metals, fabricated metal products, machinery, computer and electronic products, electrical equipment, appliance and components, transportation equipment, furniture and related products and miscellaneous manufacturing.

Unfilled orders are a stock of orders that will contribute to future shipments assuming that the orders are not cancelled.

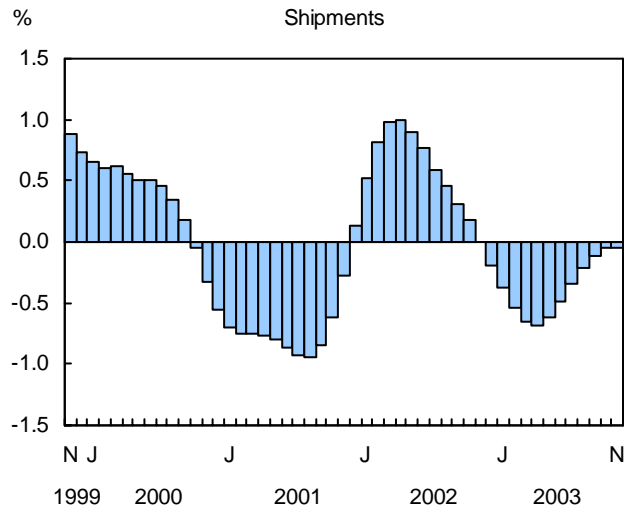
New orders are those received whether shipped in the current month or not. They are measured as the sum of shipments for the current month plus the change in unfilled orders. Some people interpret new orders as orders that will lead to future demand. This is inappropriate since the "new orders" variable includes orders that have already been shipped. Readers should take note that the month-to-month change in new orders may be volatile. This will happen particularly if the previous month's change in unfilled orders is closely related to the current month's change.

Not all orders will be translated into Canadian factory shipments because portions of large contracts can be subcontracted out to manufacturers in other countries.

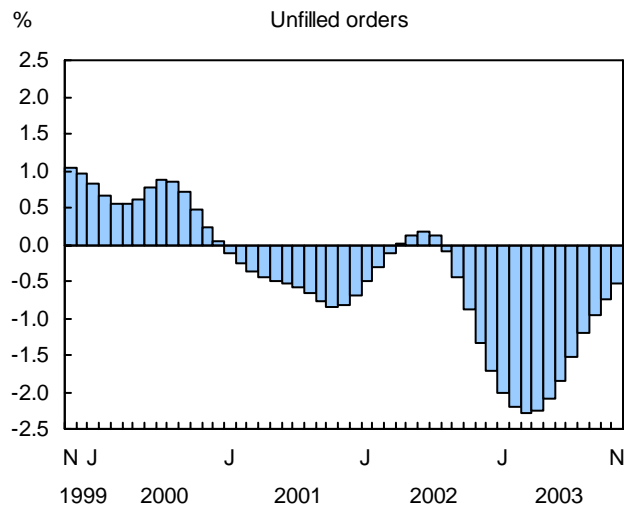
Monthly change in trend



Monthly change in trend



Monthly change in trend



Products and Services

Related Products and Data Sources

- Manufacturing Industries of Canada, 31-203-XPB
- Business Condition Survey, CANSIM (\$) tables 302-0007 and 302-0008
- Perspectives on Labour and Income, 75-001-XIE or 75-001-XPE
- Industrial Product Price Indexes, 62-011-XIE or 62-011-XPB
- Industrial Capacity Utilization Rates CANSIM II table 028-0002

Special Requests (\$)

You may obtain custom tabulations on a cost recoverable basis by contacting the Marketing and Dissemination Section. This service enables you to specify tables and time series to meet your own requirements on an ad hoc or regular basis.

Schedule of releases

Reference period
November 2002
December 2002
January 2003
February 2003
March 2003
April 2003
May 2003
June 2003
July 2003
August 2003
September 2003
October 2003
November 2003
December 2003

Monthly Survey of Manufacturing

Release date
January 22, 2003
February 18, 2003
March 18, 2003
April 16, 2003
May 15, 2003
June 13, 2003
July 16, 2003
August 14, 2003
September 16, 2003
October 15, 2003
November 14, 2003
December 16, 2003
January 21, 2004
February 13, 2004

Using the above release dates as a reference, you may view the corresponding highlights (free) from the Daily www.statcan.ca/english/dai-quo/. Just click on "Previous Issues" on the side menu bar and select the release date of your choice.

To view the MSM survey questionnaire www.statcan.ca/english/sdds/2101.htm

For further information concerning our products and services, contact us at:

Marketing and Dissemination Section
Manufacturing, Construction and Energy Division
Statistics Canada
Telephone: (613) 951-9497
Toll free: 1-866-873-8789
Fax.: (613) 951-9499
E-mail: manufact@statcan.ca

Table 1
All manufacturing industries

Period	Unadjusted				Seasonally adjusted					
	Shipments	Inventories	Unfilled orders	New orders	Shipments	Inventories	Unfilled orders	New orders		
\$ millions										
November 2002	44,305	63,129	46,202	43,734	43,385	62,989	46,127	43,021		
December 2002	39,721	62,389	44,536	38,054	42,998	63,161	44,820	41,690		
January 2003	41,879	62,601	42,643	39,986	44,520	62,929	43,123	42,823		
February 2003	40,817	63,980	42,588	40,762	43,901	63,307	42,807	43,584		
March 2003	45,280	64,512	42,467	45,159	44,070	63,368	42,616	43,879		
April 2003	43,482	64,595	41,315	42,330	42,953	63,898	41,630	41,967		
May 2003	44,714	63,666	40,096	43,495	42,285	63,358	40,057	40,711		
June 2003	43,793	62,293	39,277	42,973	42,128	62,635	39,504	41,576		
July 2003	39,307	61,423	39,176	39,206	42,897	62,085	38,972	42,365		
August 2003	41,121	60,953	38,680	40,625	40,659	61,113	38,318	40,005		
September 2003	44,965	59,997	38,870	45,154	42,951	60,420	38,502	43,136		
October 2003	45,291	59,518	37,847	44,269	42,433	59,924	37,558	41,489		
November 2003	42,106	59,911	37,387	41,646	42,209	59,928	37,240	41,891		
Month to month % change										
Shipments		Inventories		Inventory to shipments ratio		Unfilled orders		New orders		
Seasonally adjusted	Trend	Seasonally adjusted	Trend	Seasonally adjusted	Trend	Seasonally adjusted	Trend	Seasonally adjusted	Trend	
November 2002	-1.7	0.0	0.7	0.3	1.45	1.43	-0.8	-1.3	-1.5	-0.5
December 2002	-0.9	-0.2	0.3	0.3	1.47	1.43	-2.8	-1.7	-3.1	-0.6
January 2003	3.5	-0.4	-0.4	0.2	1.41	1.44	-3.8	-2.0	2.7	-0.7
February 2003	-1.4	-0.5	0.6	0.1	1.44	1.45	-0.7	-2.2	1.8	-0.7
March 2003	0.4	-0.6	0.1	0.0	1.44	1.46	-0.4	-2.3	0.7	-0.7
April 2003	-2.5	-0.7	0.8	-0.2	1.49	1.47	-2.3	-2.3	-4.4	-0.6
May 2003	-1.6	-0.6	-0.8	-0.4	1.50	1.47	-3.8	-2.1	-3.0	-0.4
June 2003	-0.4	-0.5	-1.1	-0.6	1.49	1.47	-1.4	-1.8	2.1	-0.2
July 2003	1.8	-0.3	-0.9	-0.8	1.45	1.46	-1.3	-1.5	1.9	0.0
August 2003	-5.2	-0.2	-1.6	-0.9	1.50	1.45	-1.7	-1.2	-5.6	0.1
September 2003	5.6	-0.1	-1.1	-0.8	1.41	1.44	0.5	-1.0	7.8	0.1
October 2003	-1.2	-0.1	-0.8	-0.7	1.41	1.43	-2.5	-0.7	-3.8	0.1
November 2003	-0.5	0.0	0.0	-0.6	1.42	1.42	-0.8	-0.5	1.0	0.2

Table 2
Motor vehicle, and parts and accessories industries

Period	Unadjusted				Seasonally adjusted					
	Shipments	Inventories	Unfilled orders	New orders	Shipments	Inventories	Unfilled orders	New orders		
\$ millions										
November 2002	8,695	3,660	1,933	8,660	8,124	3,586	1,932	8,097		
December 2002	6,157	3,689	1,855	6,079	7,258	3,751	1,853	7,179		
January 2003	8,166	3,585	1,834	8,145	8,236	3,552	1,816	8,199		
February 2003	8,211	3,630	1,787	8,164	8,076	3,580	1,779	8,039		
March 2003	8,926	3,529	1,724	8,863	8,335	3,495	1,730	8,286		
April 2003	8,538	3,500	1,630	8,443	8,039	3,489	1,680	7,989		
May 2003	8,733	3,420	1,581	8,684	7,935	3,395	1,606	7,861		
June 2003	8,405	3,238	1,583	8,407	7,800	3,312	1,600	7,794		
July 2003	5,340	3,160	1,607	5,364	8,351	3,221	1,589	8,340		
August 2003	6,894	3,046	1,657	6,944	6,857	3,060	1,659	6,926		
September 2003	8,158	3,164	1,668	8,169	7,810	3,169	1,645	7,796		
October 2003	8,467	3,080	1,726	8,525	7,752	3,114	1,713	7,821		
November 2003	7,598	3,144	1,753	7,625	7,494	3,097	1,715	7,495		
Month to month % change										
Shipments		Inventories		Inventory to shipments ratio		Unfilled orders		New orders		
Seasonally adjusted	Trend	Seasonally adjusted	Trend	Seasonally adjusted	Trend	Seasonally adjusted	Trend	Seasonally adjusted	Trend	
November 2002	-2.1	-0.8	3.9	0.4	0.44	0.43	-1.4	-0.6	-1.6	-1.1
December 2002	-10.7	-0.8	4.6	0.2	0.52	0.43	-4.1	-1.7	-11.3	-1.1
January 2003	13.5	-0.7	-5.3	-0.2	0.43	0.43	-2.0	-2.5	14.2	-0.9
February 2003	-1.9	-0.7	0.8	-0.6	0.44	0.43	-2.1	-2.9	-2.0	-0.7
March 2003	3.2	-0.7	-2.4	-1.1	0.42	0.43	-2.8	-2.9	3.1	-0.7
April 2003	-3.5	-0.8	-0.2	-1.5	0.43	0.43	-2.9	-2.6	-3.6	-0.7
May 2003	-1.3	-0.8	-2.7	-1.8	0.43	0.42	-4.4	-1.8	-1.6	-0.7
June 2003	-1.7	-0.8	-2.4	-1.9	0.42	0.42	-0.4	-0.9	-0.8	-0.6
July 2003	7.1	-0.8	-2.7	-1.8	0.39	0.41	-0.7	0.0	7.0	-0.6
August 2003	-17.9	-0.8	-5.0	-1.5	0.45	0.41	4.4	0.7	-16.9	-0.7
September 2003	13.9	-0.7	3.6	-1.1	0.41	0.41	-0.8	0.9	12.6	-0.7
October 2003	-0.7	-0.7	-1.7	-0.6	0.40	0.41	4.2	0.8	0.3	-0.7
November 2003	-3.3	-0.7	-0.5	-0.3	0.41	0.41	0.1	0.5	-4.2	-0.7

Table 3

All manufacturing industries except motor vehicle, parts and accessories industries

Period	Unadjusted				Seasonally adjusted					
	Shipments	Inventories	Unfilled orders	New orders	Shipments	Inventories	Unfilled orders	New orders		
\$ millions										
November 2002	35,610	59,468	44,269	35,075	35,260	59,403	44,195	34,923		
December 2002	33,564	58,700	42,681	31,975	35,740	59,410	42,967	34,511		
January 2003	33,713	59,016	40,809	31,841	36,284	59,376	41,307	34,624		
February 2003	32,607	60,350	40,801	32,598	35,825	59,728	41,027	35,546		
March 2003	36,354	60,983	40,743	36,296	35,735	59,873	40,886	35,593		
April 2003	34,945	61,095	39,685	33,887	34,914	60,409	39,950	33,979		
May 2003	35,981	60,246	38,515	34,811	34,350	59,963	38,451	32,850		
June 2003	35,388	59,055	37,694	34,566	34,328	59,323	37,904	33,781		
July 2003	33,968	58,263	37,569	33,842	34,547	58,864	37,383	34,025		
August 2003	34,226	57,907	37,023	33,681	33,802	58,053	36,659	33,078		
September 2003	36,806	56,833	37,202	36,986	35,142	57,251	36,857	35,340		
October 2003	36,824	56,438	36,122	35,744	34,681	56,810	35,845	33,668		
November 2003	34,508	56,766	35,634	34,021	34,716	56,831	35,525	34,396		
Month to month % change										
Shipments		Inventories		Inventory to shipments ratio		Unfilled orders		New orders		
Seasonally adjusted	Trend	Seasonally adjusted	Trend	Seasonally adjusted	Trend	Seasonally adjusted	Trend	Seasonally adjusted	Trend	
November 2002	-1.6	0.2	0.5	0.3	1.68	1.66	-0.8	-1.4	-1.4	-0.3
December 2002	1.4	0.0	0.0	0.3	1.66	1.66	-2.8	-1.7	-1.2	-0.5
January 2003	1.5	-0.3	-0.1	0.2	1.64	1.67	-3.9	-2.0	0.3	-0.6
February 2003	-1.3	-0.5	0.6	0.2	1.67	1.68	-0.7	-2.2	2.7	-0.7
March 2003	-0.3	-0.6	0.2	0.0	1.68	1.70	-0.3	-2.3	0.1	-0.7
April 2003	-2.3	-0.7	0.9	-0.1	1.73	1.70	-2.3	-2.2	-4.5	-0.6
May 2003	-1.6	-0.6	-0.7	-0.3	1.75	1.71	-3.8	-2.1	-3.3	-0.4
June 2003	-0.1	-0.4	-1.1	-0.6	1.73	1.71	-1.4	-1.9	2.8	-0.1
July 2003	0.6	-0.2	-0.8	-0.7	1.70	1.70	-1.4	-1.6	0.7	0.1
August 2003	-2.2	-0.1	-1.4	-0.8	1.72	1.68	-1.9	-1.3	-2.8	0.3
September 2003	4.0	0.0	-1.4	-0.8	1.63	1.67	0.5	-1.0	6.8	0.3
October 2003	-1.3	0.1	-0.8	-0.7	1.64	1.66	-2.7	-0.8	-4.7	0.3
November 2003	0.1	0.1	0.0	-0.6	1.64	1.65	-0.9	-0.6	2.2	0.3

Table 4
Shipments by major group and selected industries

	NAICS Code	Unadjusted					
		Current periods					
		November 2003	October 2003	September 2003	August 2003		
		\$ millions					
Food manufacturing	311	5,450	5,831	5,556	5,346		
Beverage and tobacco product manufacturing	312	1,106	1,132	1,140	1,246		
Textile mills	313	238	248	258	240		
Textile product mills	314	179	201	189	182		
Clothing manufacturing	315	547	597	578	564		
Leather and allied product manufacturing	316	59	76	92	80		
Wood product manufacturing	321	2,394	2,654	2,627	2,486		
Paper manufacturing	322	2,468	2,602	2,649	2,627		
Printing and related support activities	323	898	911	893	797		
Petroleum and coal products manufacturing	324	2,791	2,815	2,939	3,133		
Chemical manufacturing	325	3,071	3,334	3,268	2,972		
Plastics and rubber products manufacturing	326	1,940	2,147	2,051	1,866		
Non-metallic mineral product manufacturing	327	1,023	1,241	1,221	1,164		
Primary metal manufacturing	331	2,663	2,916	2,854	2,514		
Fabricated metal product manufacturing	332	2,378	2,625	2,644	2,334		
Machinery manufacturing	333	1,930	2,007	2,027	1,662		
Computer and electronic product manufacturing	334	1,577	1,474	1,865	1,423		
Electrical equipment, appliance and component manufacturing	335	765	767	820	697		
Transportation equipment manufacturing	336	9,152	10,129	9,724	8,322		
Motor vehicle manufacturing	3361	4,951	5,464	5,362	4,370		
Motor vehicle body and trailer manufacturing	3362	199	234	212	185		
Motor vehicle parts manufacturing	3363	2,647	3,003	2,797	2,525		
Aerospace product and parts manufacturing	3364	829	987	854	841		
Railroad rolling stock manufacturing	3365	247	194	235	156		
Ship and boat building	3366	71	71	67	64		
Furniture and related product manufacturing	337	1,002	1,060	1,081	1,006		
Miscellaneous manufacturing	339	474	523	490	460		
Non-durable goods industries		18,200	19,298	19,033	18,488		
Durable goods industries		23,906	25,993	25,931	22,632		
Manufacturing		42,106	45,291	44,965	41,121		
		Previous year		Year-to-date		Annual	
		November 2002	October 2002	% Change from 2002	2003	% Change from 2001	2002
		\$ millions					
Food manufacturing	311	5,328	5,615	1.7	58,525	1.1	62,911
Beverage and tobacco product manufacturing	312	1,070	1,106	1.9	12,323	3.7	13,304
Textile mills	313	256	278	-10.1	2,686	-3.7	3,210
Textile product mills	314	209	229	-10.3	2,101	0.5	2,520
Clothing manufacturing	315	631	681	-9.1	5,761	-3.0	6,785
Leather and allied product manufacturing	316	70	85	-13.5	626	-9.9	777
Wood product manufacturing	321	2,313	2,622	-4.0	26,339	7.2	29,498
Paper manufacturing	322	2,830	2,911	-4.0	28,900	-4.4	32,726
Printing and related support activities	323	904	922	0.3	9,274	-4.1	10,061
Petroleum and coal products manufacturing	324	2,895	3,213	12.3	32,870	1.1	32,350
Chemical manufacturing	325	3,212	3,386	5.1	36,403	4.0	37,769
Plastics and rubber products manufacturing	326	1,921	2,071	1.3	21,682	6.7	23,002
Non-metallic mineral product manufacturing	327	1,038	1,212	4.5	11,322	9.7	11,586
Primary metal manufacturing	331	2,728	2,943	2.1	30,295	8.8	32,216
Fabricated metal product manufacturing	332	2,360	2,571	1.1	25,886	2.8	27,510
Machinery manufacturing	333	1,961	2,183	-5.6	20,949	1.3	24,113
Computer and electronic product manufacturing	334	1,663	1,737	-14.5	16,615	-16.5	21,255
Electrical equipment, appliance and component manufacturing	335	796	812	-4.4	8,267	-7.6	9,335
Transportation equipment manufacturing	336	10,580	10,935	-5.5	105,585	4.6	119,746
Motor vehicle manufacturing	3361	5,862	6,065	-5.8	58,157	5.7	65,797
Motor vehicle body and trailer manufacturing	3362	225	236	-1.0	2,474	8.5	2,704
Motor vehicle parts manufacturing	3363	2,833	2,989	-4.4	29,278	10.2	32,741
Aerospace product and parts manufacturing	3364	1,110	1,099	-8.4	10,393	-15.0	12,472
Railroad rolling stock manufacturing	3365	275	253	-4.5	2,535	5.4	2,878
Ship and boat building	3366	63	70	-23.6	901	20.6	1,242
Furniture and related product manufacturing	337	1,041	1,147	-0.9	11,287	2.4	12,303
Miscellaneous manufacturing	339	498	533	-0.6	5,060	8.5	5,527
Non-durable goods industries		18,696	19,815	2.5	205,389	1.1	218,631
Durable goods industries		25,609	27,377	-4.0	267,365	2.5	299,874
Manufacturing		44,305	47,191	-1.3	472,755	1.9	518,505

Table 4

Shipments by major group and selected industries - concluded

	NAICS Code	Change from October	Seasonally adjusted						
			Current periods						
			November 2003	October 2003	September 2003	August 2003			
			\$ millions						
Food manufacturing	311	-88	5,412	5,499	5,345	5,206			
Beverage and tobacco product manufacturing	312	14	1,155	1,141	1,116	1,130			
Textile mills	313	3	236	233	238	233			
Textile product mills	314	-3	180	183	181	179			
Clothing manufacturing	315	4	506	501	507	487			
Leather and allied product manufacturing	316	-2	53	55	58	55			
Wood product manufacturing	321	2	2,513	2,511	2,535	2,435			
Paper manufacturing	322	-22	2,450	2,472	2,571	2,585			
Printing and related support activities	323	22	854	832	841	814			
Petroleum and coal products manufacturing	324	62	2,804	2,742	2,836	2,945			
Chemical manufacturing	325	-10	3,207	3,217	3,330	3,063			
Plastics and rubber products manufacturing	326	24	1,991	1,968	1,975	1,819			
Non-metallic mineral product manufacturing	327	-4	1,006	1,010	1,022	984			
Primary metal manufacturing	331	4	2,768	2,765	2,768	2,568			
Fabricated metal product manufacturing	332	-41	2,335	2,376	2,382	2,283			
Machinery manufacturing	333	56	1,962	1,906	1,912	1,835			
Computer and electronic product manufacturing	334	57	1,559	1,502	1,735	1,485			
Electrical equipment, appliance and component manufacturing	335	18	750	732	757	730			
Transportation equipment manufacturing	336	-313	9,033	9,346	9,370	8,399			
Motor vehicle manufacturing	3361	-182	4,829	5,011	5,146	4,397			
Motor vehicle body and trailer manufacturing	3362	-19	208	227	211	217			
Motor vehicle parts manufacturing	3363	-76	2,665	2,741	2,664	2,459			
Aerospace product and parts manufacturing	3364	-106	809	915	866	889			
Railroad rolling stock manufacturing	3365	33	227	193	196	183			
Ship and boat building	3366	5	88	83	89	73			
Furniture and related product manufacturing	337	9	988	978	1,030	974			
Miscellaneous manufacturing	339	-17	445	462	443	451			
Non-durable goods industries		1	18,343	18,343	18,491	18,029			
Durable goods industries		-224	23,866	24,090	24,460	22,630			
Manufacturing		-223	42,209	42,433	42,951	40,659			
			Change from previous month		Trend change from previous month				
			November 2003	October 2003	September 2003	November 2003	October 2003	September 2003	August 2003
			percentage						
Food manufacturing	311	-1.6	2.9	2.7	0.4	0.4	0.4	0.3	
Beverage and tobacco product manufacturing	312	1.3	2.2	-1.2	0.3	0.4	0.5	0.4	
Textile mills	313	1.2	-2.1	2.1	0.0	0.0	-0.3	-0.6	
Textile product mills	314	-1.6	1.4	0.8	-0.8	-1.0	-1.1	-1.0	
Clothing manufacturing	315	0.9	-1.2	4.3	0.4	0.3	0.0	-0.4	
Leather and allied product manufacturing	316	-3.3	-5.3	6.8	-0.6	-0.4	-0.2	0.0	
Wood product manufacturing	321	0.1	-0.9	4.1	1.0	1.4	1.7	1.8	
Paper manufacturing	322	-0.9	-3.8	-0.5	-1.2	-1.3	-1.4	-1.3	
Printing and related support activities	323	2.6	-1.0	3.3	0.2	0.2	0.1	0.0	
Petroleum and coal products manufacturing	324	2.2	-3.3	-3.7	-0.7	-0.8	-1.1	-1.3	
Chemical manufacturing	325	-0.3	-3.4	8.7	-0.3	-0.4	-0.6	-0.7	
Plastics and rubber products manufacturing	326	1.2	-0.4	8.6	0.4	0.5	0.5	0.4	
Non-metallic mineral product manufacturing	327	-0.4	-1.2	3.8	0.1	0.1	0.0	-0.1	
Primary metal manufacturing	331	0.1	-0.1	7.8	0.6	0.7	0.5	0.2	
Fabricated metal product manufacturing	332	-1.7	-0.2	4.3	0.1	0.1	0.2	0.3	
Machinery manufacturing	333	3.0	-0.3	4.2	0.5	0.5	0.4	0.3	
Computer and electronic product manufacturing	334	3.8	-13.4	16.9	1.0	1.1	1.0	0.7	
Electrical equipment, appliance and component manufacturing	335	2.5	-3.3	3.7	0.1	0.1	0.1	0.0	
Transportation equipment manufacturing	336	-3.3	-0.3	11.6	-0.7	-0.7	-0.8	-0.8	
Motor vehicle manufacturing	3361	-3.6	-2.6	17.0	-1.4	-1.5	-1.5	-1.4	
Motor vehicle body and trailer manufacturing	3362	-8.3	7.6	-2.7	-0.8	-0.9	-0.9	-0.8	
Motor vehicle parts manufacturing	3363	-2.8	2.9	8.3	0.7	0.8	0.7	0.4	
Aerospace product and parts manufacturing	3364	-11.6	5.7	-2.6	-1.9	-2.5	-2.8	-2.6	
Railroad rolling stock manufacturing	3365	17.2	-1.6	7.5	1.0	-0.5	-2.2	-3.6	
Ship and boat building	3366	6.1	-7.5	23.0	0.9	0.9	0.6	0.3	
Furniture and related product manufacturing	337	0.9	-5.0	5.8	-0.2	-0.5	-0.7	-0.8	
Miscellaneous manufacturing	339	-3.6	4.3	-1.8	-0.2	-0.1	-0.1	-0.1	
Non-durable goods industries		0.0	-0.8	2.6	-0.1	-0.2	-0.3	-0.4	
Durable goods industries		-0.9	-1.5	8.1	0.0	0.0	0.0	-0.1	
Manufacturing		-0.5	-1.2	5.6	0.0	-0.1	-0.1	-0.2	

Table 5
Inventories by major group and selected industries

	NAICS Code	Unadjusted					
		Current periods					
		November 2003	October 2003	September 2003	August 2003		
		\$ millions					
Food manufacturing	311	5,026	5,052	4,991	4,861		
Beverage and tobacco product manufacturing	312	1,731	1,718	1,692	1,713		
Textile mills	313	411	428	436	445		
Textile product mills	314	298	300	304	299		
Clothing manufacturing	315	1,132	1,184	1,252	1,245		
Leather and allied product manufacturing	316	108	115	124	141		
Wood product manufacturing	321	3,840	3,841	3,943	3,963		
Paper manufacturing	322	3,514	3,493	3,475	3,515		
Printing and related support activities	323	704	702	702	716		
Petroleum and coal products manufacturing	324	1,499	1,509	1,535	1,719		
Chemical manufacturing	325	5,837	5,632	5,530	5,877		
Plastics and rubber products manufacturing	326	2,075	2,095	2,070	2,108		
Non-metallic mineral product manufacturing	327	1,174	1,157	1,154	1,167		
Primary metal manufacturing	331	4,527	4,464	4,512	4,653		
Fabricated metal product manufacturing	332	3,288	3,314	3,409	3,539		
Machinery manufacturing	333	4,372	4,357	4,314	4,357		
Computer and electronic product manufacturing	334	4,050	4,054	3,995	4,082		
Electrical equipment, appliance and component manufacturing	335	1,301	1,312	1,292	1,323		
Transportation equipment manufacturing	336	12,622	12,385	12,819	12,800		
Motor vehicle manufacturing	3361	1,223	1,214	1,297	1,210		
Motor vehicle body and trailer manufacturing	3362	461	437	437	428		
Motor vehicle parts manufacturing	3363	1,921	1,866	1,867	1,837		
Aerospace product and parts manufacturing	3364	7,687	7,484	7,829	7,938		
Railroad rolling stock manufacturing	3365	979	1,034	1,076	1,100		
Ship and boat building	3366	137	132	122	108		
Furniture and related product manufacturing	337	1,413	1,419	1,451	1,455		
Miscellaneous manufacturing	339	989	986	997	976		
Non-durable goods industries		21,202	21,044	20,859	21,393		
Durable goods industries		38,708	38,474	39,138	39,560		
Manufacturing		59,911	59,518	59,997	60,953		
		Previous year		Year-to-date		Average per month	
		November 2002	October 2002	% Change from 2002	Average 2003	% Change from 2001	2002
		\$ millions					
Food manufacturing	311	5,109	5,033	1.1	4,884	3.4	4,832
Beverage and tobacco product manufacturing	312	1,759	1,752	1.7	1,751	5.0	1,717
Textile mills	313	457	462	-8.6	448	-9.3	486
Textile product mills	314	325	323	-4.6	311	-13.1	324
Clothing manufacturing	315	1,115	1,138	3.1	1,214	-12.5	1,174
Leather and allied product manufacturing	316	123	132	-6.6	130	-8.9	137
Wood product manufacturing	321	4,227	4,158	-0.1	4,455	-6.3	4,449
Paper manufacturing	322	3,504	3,491	0.2	3,562	-7.0	3,548
Printing and related support activities	323	704	719	-1.0	699	-5.7	702
Petroleum and coal products manufacturing	324	1,431	1,565	1.0	1,638	-10.6	1,614
Chemical manufacturing	325	5,490	5,377	11.1	5,836	4.0	5,277
Plastics and rubber products manufacturing	326	2,100	2,041	5.8	2,148	0.8	2,039
Non-metallic mineral product manufacturing	327	1,152	1,140	-0.2	1,205	2.0	1,206
Primary metal manufacturing	331	4,997	4,922	2.7	4,747	0.4	4,657
Fabricated metal product manufacturing	332	3,497	3,501	1.3	3,545	2.1	3,492
Machinery manufacturing	333	4,619	4,710	-3.5	4,457	1.2	4,609
Computer and electronic product manufacturing	334	4,511	4,412	-10.6	4,183	-22.5	4,654
Electrical equipment, appliance and component manufacturing	335	1,364	1,375	-3.4	1,342	-16.3	1,384
Transportation equipment manufacturing	336	14,056	13,487	-2.5	13,068	-1.3	13,441
Motor vehicle manufacturing	3361	1,788	1,677	-18.8	1,400	2.9	1,730
Motor vehicle body and trailer manufacturing	3362	431	413	11.3	462	-6.3	417
Motor vehicle parts manufacturing	3363	1,873	1,768	9.6	1,918	3.9	1,762
Aerospace product and parts manufacturing	3364	8,121	7,853	0.1	7,813	0.3	7,817
Railroad rolling stock manufacturing	3365	1,461	1,414	-13.4	1,152	-14.0	1,338
Ship and boat building	3366	136	134	-14.9	124	-35.7	145
Furniture and related product manufacturing	337	1,492	1,461	4.2	1,485	1.1	1,427
Miscellaneous manufacturing	339	1,095	1,099	-3.2	1,025	3.3	1,059
Non-durable goods industries		21,003	20,894	3.5	21,407	-0.7	20,676
Durable goods industries		42,125	41,401	-2.0	40,725	-4.7	41,553
Manufacturing		63,129	62,295	-0.1	62,132	-3.4	62,229

Table 5
Inventories by major group and selected industries - concluded

	NAICS Code	Change from October	Seasonally adjusted						
			Current periods						
			November 2003	October 2003	September 2003	August 2003			
			\$ millions						
Food manufacturing	311	-34	4,847	4,881	4,868	4,841			
Beverage and tobacco product manufacturing	312	-12	1,723	1,734	1,754	1,756			
Textile mills	313	-18	412	430	442	449			
Textile product mills	314	0	301	301	306	303			
Clothing manufacturing	315	-2	1,227	1,229	1,230	1,217			
Leather and allied product manufacturing	316	-3	120	122	122	127			
Wood product manufacturing	321	-27	4,103	4,130	4,231	4,285			
Paper manufacturing	322	-11	3,545	3,556	3,558	3,551			
Printing and related support activities	323	10	690	680	694	697			
Petroleum and coal products manufacturing	324	37	1,588	1,551	1,552	1,662			
Chemical manufacturing	325	123	5,897	5,775	5,644	5,897			
Plastics and rubber products manufacturing	326	-46	2,093	2,139	2,121	2,132			
Non-metallic mineral product manufacturing	327	14	1,229	1,215	1,195	1,179			
Primary metal manufacturing	331	53	4,435	4,382	4,455	4,612			
Fabricated metal product manufacturing	332	-23	3,319	3,342	3,440	3,536			
Machinery manufacturing	333	30	4,328	4,298	4,316	4,312			
Computer and electronic product manufacturing	334	-59	3,964	4,023	4,092	4,054			
Electrical equipment, appliance and component manufacturing	335	-8	1,309	1,317	1,310	1,323			
Transportation equipment manufacturing	336	-17	12,367	12,384	12,653	12,759			
Motor vehicle manufacturing	3361	-21	1,200	1,221	1,278	1,203			
Motor vehicle body and trailer manufacturing	3362	21	473	452	452	449			
Motor vehicle parts manufacturing	3363	4	1,897	1,893	1,891	1,856			
Aerospace product and parts manufacturing	3364	48	7,478	7,429	7,649	7,860			
Railroad rolling stock manufacturing	3365	-55	979	1,034	1,076	1,100			
Ship and boat building	3366	0	128	128	125	116			
Furniture and related product manufacturing	337	-6	1,429	1,434	1,445	1,445			
Miscellaneous manufacturing	339	4	1,002	998	991	976			
Non-durable goods industries		45	21,216	21,171	21,063	21,415			
Durable goods industries		-41	38,713	38,754	39,357	39,699			
Manufacturing		4	59,928	59,924	60,420	61,113			
			Change from previous month		Trend change from previous month				
			November 2003	October 2003	September 2003	November 2003	October 2003	September 2003	August 2003
			percentage						
Food manufacturing	311	-0.7	0.3	0.6	-0.1	-0.1	-0.1	-0.1	0.0
Beverage and tobacco product manufacturing	312	-0.7	-1.1	-0.1	-0.3	-0.2	-0.1	-0.1	-1.0
Textile mills	313	-4.2	-2.8	-1.5	-1.3	-1.3	-1.3	-1.3	-0.9
Textile product mills	314	-0.1	-1.3	1.0	-0.6	-0.8	-0.9	-0.9	0.2
Clothing manufacturing	315	-0.2	-0.1	1.1	0.0	0.1	0.2	0.2	-1.3
Leather and allied product manufacturing	316	-2.3	0.3	-4.0	-1.3	-1.5	-1.4	-1.4	-2.0
Wood product manufacturing	321	-0.7	-2.4	-1.3	-1.7	-2.0	-2.1	-2.1	0.0
Paper manufacturing	322	-0.3	-0.1	0.2	-0.2	-0.1	-0.1	-0.1	-0.3
Printing and related support activities	323	1.5	-2.1	-0.4	-0.4	-0.4	-0.4	-0.4	-0.7
Petroleum and coal products manufacturing	324	2.4	-0.1	-6.6	-0.8	-1.0	-1.0	-1.0	-0.1
Chemical manufacturing	325	2.1	2.3	-4.3	0.1	0.0	-0.1	-0.1	-0.3
Plastics and rubber products manufacturing	326	-2.2	0.9	-0.5	0.0	-0.1	-0.2	-0.2	0.2
Non-metallic mineral product manufacturing	327	1.1	1.7	1.4	0.5	0.5	0.4	0.4	-1.9
Primary metal manufacturing	331	1.2	-1.6	-3.4	-0.8	-1.3	-1.7	-1.7	-1.3
Fabricated metal product manufacturing	332	-0.7	-2.9	-2.7	-1.2	-1.4	-1.4	-1.4	-0.7
Machinery manufacturing	333	0.7	-0.4	0.1	-0.1	-0.3	-0.5	-0.5	-1.0
Computer and electronic product manufacturing	334	-1.5	-1.7	0.9	-0.9	-1.0	-1.0	-1.0	-0.7
Electrical equipment, appliance and component manufacturing	335	-0.6	0.6	-1.0	-0.2	-0.3	-0.5	-0.5	-1.2
Transportation equipment manufacturing	336	-0.1	-2.1	-0.8	-1.0	-1.1	-1.2	-1.2	-3.2
Motor vehicle manufacturing	3361	-1.7	-4.5	6.2	-0.3	-1.2	-2.2	-2.2	-0.6
Motor vehicle body and trailer manufacturing	3362	4.7	0.0	0.6	-0.2	-0.3	-0.5	-0.5	-0.4
Motor vehicle parts manufacturing	3363	0.2	0.1	1.9	-0.2	-0.3	-0.4	-0.4	-1.0
Aerospace product and parts manufacturing	3364	0.7	-2.9	-2.7	-1.1	-1.2	-1.2	-1.2	-2.5
Railroad rolling stock manufacturing	3365	-5.3	-3.9	-2.2	-3.0	-2.9	-2.7	-2.7	0.6
Ship and boat building	3366	-0.4	2.6	7.6	0.7	0.7	0.7	0.7	-1.0
Furniture and related product manufacturing	337	-0.4	-0.8	0.0	-0.6	-0.8	-0.9	-0.9	-0.6
Miscellaneous manufacturing	339	0.4	0.7	1.5	0.2	0.0	-0.3	-0.3	-0.2
Non-durable goods industries		0.2	0.5	-1.6	-0.2	-0.2	-0.2	-0.2	-1.2
Durable goods industries		-0.1	-1.5	-0.9	-0.8	-1.0	-1.1	-1.1	-0.9
Manufacturing		0.0	-0.8	-1.1	-0.6	-0.7	-0.8	-0.8	

Table 6
Unfilled orders by selected major group and industries

	NAICS Code	Unadjusted					
		Current periods					
		November 2003	October 2003	September 2003	August 2003		
		\$ millions					
Textile mills	313	197	201	208	224		
Textile product mills	314	62	64	56	48		
Clothing manufacturing	315	283	283	309	326		
Leather and allied product manufacturing	316	28	26	26	32		
Plastics and rubber products manufacturing	326	1,566	1,439	1,398	1,201		
Primary metal manufacturing	331	1,691	1,689	1,670	1,649		
Fabricated metal product manufacturing	332	2,822	2,937	2,933	2,799		
Machinery manufacturing	333	5,666	5,596	5,676	5,943		
Computer and electronic product manufacturing	334	3,585	3,737	3,992	3,625		
Electrical equipment, appliance and component manufacturing	335	961	933	929	960		
Transportation equipment manufacturing	336	17,626	17,933	18,615	18,736		
Motor vehicle manufacturing	3361	807	822	784	807		
Motor vehicle body and trailer manufacturing	3362	558	567	565	561		
Motor vehicle parts manufacturing	3363	946	904	883	850		
Aerospace product and parts manufacturing	3364	10,657	11,053	11,716	11,547		
Ship and boat building	3366	45	43	47	44		
Miscellaneous manufacturing	339	183	195	204	207		
Non-durable goods industries		3,150	3,086	3,152	2,985		
Durable goods industries		34,237	34,762	35,718	35,695		
Manufacturing		37,387	37,847	38,870	38,680		
		Previous year		Year-to-date		Average per month	
		November 2002	October 2002	% Change from 2002	Average 2003	% Change from 2001	2002
		\$ millions					
Textile mills	313	270	271	-18.8	225	9.3	276
Textile product mills	314	60	61	17.3	64	2.7	55
Clothing manufacturing	315	282	272	-3.3	317	-7.0	324
Leather and allied product manufacturing	316	23	23	-4.3	31	-18.2	31
Plastics and rubber products manufacturing	326	1,407	1,504	2.4	1,275	15.6	1,254
Primary metal manufacturing	331	1,827	1,734	-6.1	1,684	25.1	1,795
Fabricated metal product manufacturing	332	2,906	2,818	-2.4	2,817	0.3	2,878
Machinery manufacturing	333	6,368	6,420	-7.3	6,237	4.3	6,709
Computer and electronic product manufacturing	334	4,189	4,236	-3.1	3,843	-8.4	3,977
Electrical equipment, appliance and component manufacturing	335	1,003	1,004	0.4	979	-30.5	977
Transportation equipment manufacturing	336	24,849	25,341	-24.1	19,551	-8.7	25,566
Motor vehicle manufacturing	3361	1,022	1,134	-22.4	821	4.2	1,052
Motor vehicle body and trailer manufacturing	3362	569	569	1.5	600	8.4	590
Motor vehicle parts manufacturing	3363	911	834	20.8	865	24.2	729
Aerospace product and parts manufacturing	3364	16,721	16,928	-31.7	12,334	-12.0	17,877
Ship and boat building	3366	22	20	143.3	44	-37.0	18
Miscellaneous manufacturing	339	248	283	-18.7	184	-12.1	226
Non-durable goods industries		3,043	3,226	5.0	3,001	15.3	2,867
Durable goods industries		43,159	43,547	-15.7	37,030	-5.4	43,740
Manufacturing		46,202	46,773	-14.5	40,031	-4.3	46,606

Table 6

Unfilled orders by selected major group and industries - concluded

	NAICS Code	Change from October	Seasonally adjusted						
			Current periods						
			November 2003	October 2003	September 2003	August 2003			
			\$ millions						
Textile mills	313	-3	206	209	212	224			
Textile product mills	314	0	62	62	55	46			
Clothing manufacturing	315	-4	309	313	326	330			
Leather and allied product manufacturing	316	2	34	32	30	32			
Plastics and rubber products manufacturing	326	170	1,409	1,239	1,414	1,265			
Primary metal manufacturing	331	18	1,784	1,765	1,706	1,641			
Fabricated metal product manufacturing	332	-115	2,822	2,937	2,933	2,799			
Machinery manufacturing	333	70	5,666	5,596	5,676	5,943			
Computer and electronic product manufacturing	334	-153	3,585	3,737	3,992	3,625			
Electrical equipment, appliance and component manufacturing	335	28	961	933	929	960			
Transportation equipment manufacturing	336	-299	17,491	17,790	18,172	18,363			
Motor vehicle manufacturing	3361	-15	807	822	784	807			
Motor vehicle body and trailer manufacturing	3362	-19	583	601	609	592			
Motor vehicle parts manufacturing	3363	16	908	892	861	852			
Aerospace product and parts manufacturing	3364	-351	10,535	10,886	11,256	11,143			
Ship and boat building	3366	3	47	44	43	44			
Miscellaneous manufacturing	339	-6	173	179	192	209			
Non-durable goods industries		112	3,009	2,897	3,175	3,047			
Durable goods industries		-430	34,231	34,661	35,327	35,270			
Manufacturing		-318	37,240	37,558	38,502	38,318			
			Change from previous month		Trend change from previous month				
			November 2003	October 2003	September 2003	November 2003	October 2003	September 2003	August 2003
			percentage						
Textile mills	313	-1.5	-1.5	-5.3	0.2	-0.2	-0.7	-1.2	
Textile product mills	314	-0.2	12.4	20.5	-0.5	-0.9	-1.4	-2.1	
Clothing manufacturing	315	-1.2	-4.0	-1.1	-0.5	-0.4	-0.4	-0.2	
Leather and allied product manufacturing	316	5.0	9.4	-6.0	4.3	5.1	4.5	3.3	
Plastics and rubber products manufacturing	326	13.7	-12.4	11.8	2.7	2.7	2.2	1.2	
Primary metal manufacturing	331	1.0	3.4	4.0	1.7	1.8	1.8	1.4	
Fabricated metal product manufacturing	332	-3.9	0.1	4.8	0.1	0.0	0.2	0.3	
Machinery manufacturing	333	1.2	-1.4	-4.5	-1.1	-1.4	-1.6	-1.8	
Computer and electronic product manufacturing	334	-4.1	-6.4	10.1	1.0	0.9	0.4	-0.4	
Electrical equipment, appliance and component manufacturing	335	2.9	0.4	-3.2	0.2	-0.3	-0.8	-1.2	
Transportation equipment manufacturing	336	-1.7	-2.1	-1.0	-1.2	-1.5	-1.8	-2.0	
Motor vehicle manufacturing	3361	-1.8	4.8	-2.8	-0.3	0.2	0.6	0.6	
Motor vehicle body and trailer manufacturing	3362	-3.1	-1.3	3.0	-0.4	-0.2	0.0	0.1	
Motor vehicle parts manufacturing	3363	1.8	3.6	1.1	1.2	1.3	1.1	0.7	
Aerospace product and parts manufacturing	3364	-3.2	-3.3	1.0	-1.8	-2.3	-2.6	-3.0	
Ship and boat building	3366	7.4	1.7	-2.7	0.1	0.1	-0.1	-0.1	
Miscellaneous manufacturing	339	-3.6	-6.9	-8.1	-1.7	-1.3	-0.6	0.0	
Non-durable goods industries		3.9	-8.7	4.2	0.4	0.5	0.4	0.3	
Durable goods industries		-1.2	-1.9	0.2	-0.6	-0.8	-1.1	-1.3	
Manufacturing		-0.8	-2.5	0.5	-0.5	-0.7	-1.0	-1.2	

Table 7

New orders by selected major group and industries

	NAICS Code	Unadjusted					
		Current periods					
		November 2003	October 2003	September 2003	August 2003		
		\$ millions					
Textile mills	313	233	242	242	254		
Textile product mills	314	176	210	196	170		
Clothing manufacturing	315	547	571	561	558		
Leather and allied product manufacturing	316	61	76	86	76		
Plastics and rubber products manufacturing	326	2,067	2,188	2,248	2,042		
Primary metal manufacturing	331	2,665	2,935	2,876	2,524		
Fabricated metal product manufacturing	332	2,263	2,629	2,779	2,391		
Machinery manufacturing	333	2,000	1,928	1,760	1,500		
Computer and electronic product manufacturing	334	1,425	1,219	2,232	1,413		
Electrical equipment, appliance and component manufacturing	335	793	771	789	707		
Transportation equipment manufacturing	336	8,845	9,447	9,603	7,798		
Motor vehicle manufacturing	3361	4,936	5,501	5,339	4,395		
Motor vehicle body and trailer manufacturing	3362	191	236	215	179		
Motor vehicle parts manufacturing	3363	2,690	3,024	2,830	2,549		
Aerospace product and parts manufacturing	3364	434	323	1,023	445		
Ship and boat building	3366	74	66	70	59		
Miscellaneous manufacturing	339	463	514	487	496		
Non-durable goods industries		18,265	19,232	19,200	18,613		
Durable goods industries		23,382	25,037	25,954	22,012		
Manufacturing		41,646	44,269	45,154	40,625		
		Previous year		Year-to-date		Annual	
		November 2002	October 2002	% Change from 2002	2003	% Change from 2001	2002
		\$ millions					
Textile mills	313	255	272	-13.7	2,621	-0.8	3,253
Textile product mills	314	208	232	-10.5	2,103	2.0	2,527
Clothing manufacturing	315	640	672	-8.9	5,768	-2.2	6,769
Leather and allied product manufacturing	316	71	81	-11.9	631	-10.6	770
Plastics and rubber products manufacturing	326	1,824	2,363	1.6	21,886	6.2	23,082
Primary metal manufacturing	331	2,820	2,882	0.2	30,187	10.9	32,658
Fabricated metal product manufacturing	332	2,448	2,522	0.5	25,923	2.6	27,584
Machinery manufacturing	333	1,908	1,961	-6.2	20,118	-3.3	23,507
Computer and electronic product manufacturing	334	1,616	1,949	-19.3	16,103	-8.9	21,693
Electrical equipment, appliance and component manufacturing	335	795	805	-4.2	8,224	1.6	9,275
Transportation equipment manufacturing	336	10,088	10,159	-9.8	99,632	3.6	117,133
Motor vehicle manufacturing	3361	5,750	5,973	-6.3	57,977	6.4	65,879
Motor vehicle body and trailer manufacturing	3362	225	225	-2.9	2,458	8.7	2,741
Motor vehicle parts manufacturing	3363	2,909	2,990	-5.1	29,357	11.0	33,006
Aerospace product and parts manufacturing	3364	903	486	-41.4	5,049	-39.5	9,017
Ship and boat building	3366	64	69	-22.1	924	24.0	1,248
Miscellaneous manufacturing	339	464	516	-1.5	5,029	8.5	5,508
Non-durable goods industries		18,513	20,149	2.5	205,571	1.0	218,796
Durable goods industries		25,221	26,491	-6.4	260,036	3.2	297,812
Manufacturing		43,734	46,640	-2.7	465,606	2.3	516,608

Table 7

New orders by selected major group and industries - concluded

	NAICS Code	Change from October	Seasonally adjusted						
			Current periods						
			November 2003	October 2003	September 2003	August 2003			
\$ millions									
Textile mills	313	3	232	229	226	242			
Textile product mills	314	-10	180	190	190	164			
Clothing manufacturing	315	14	502	488	504	506			
Leather and allied product manufacturing	316	-3	55	58	57	59			
Plastics and rubber products manufacturing	326	369	2,161	1,793	2,124	1,949			
Primary metal manufacturing	331	-37	2,787	2,823	2,833	2,577			
Fabricated metal product manufacturing	332	-159	2,220	2,380	2,516	2,340			
Machinery manufacturing	333	206	2,032	1,826	1,645	1,673			
Computer and electronic product manufacturing	334	159	1,406	1,247	2,102	1,475			
Electrical equipment, appliance and component manufacturing	335	42	778	736	726	740			
Transportation equipment manufacturing	336	-229	8,734	8,963	9,179	7,746			
Motor vehicle manufacturing	3361	-235	4,814	5,049	5,123	4,422			
Motor vehicle body and trailer manufacturing	3362	-29	189	219	228	223			
Motor vehicle parts manufacturing	3363	-91	2,681	2,772	2,673	2,504			
Aerospace product and parts manufacturing	3364	-86	458	545	980	330			
Ship and boat building	3366	8	91	83	88	68			
Miscellaneous manufacturing	339	-10	439	449	426	471			
Non-durable goods industries		390	18,455	18,065	18,619	18,107			
Durable goods industries		13	23,436	23,423	24,517	21,898			
Manufacturing		403	41,891	41,489	43,136	40,005			
			Change from previous month		Trend change from previous month				
			November 2003	October 2003	September 2003	November 2003	October 2003	September 2003	August 2003
percentage									
Textile mills	313	1.3	1.6	-6.6	0.4	0.4	0.2	0.1	
Textile product mills	314	-5.2	0.0	15.6	-0.7	-0.8	-0.8	-0.7	
Clothing manufacturing	315	2.8	-3.1	-0.4	0.3	0.2	-0.1	-0.7	
Leather and allied product manufacturing	316	-5.1	2.8	-3.7	-0.9	0.0	0.6	1.0	
Plastics and rubber products manufacturing	326	20.6	-15.6	9.0	0.4	0.9	1.1	1.0	
Primary metal manufacturing	331	-1.3	-0.3	9.9	0.5	0.7	0.8	0.7	
Fabricated metal product manufacturing	332	-6.7	-5.4	7.5	0.1	0.0	0.1	0.4	
Machinery manufacturing	333	11.3	11.0	-1.7	1.7	1.1	1.1	1.5	
Computer and electronic product manufacturing	334	12.8	-40.7	42.5	1.3	2.3	3.0	3.1	
Electrical equipment, appliance and component manufacturing	335	5.7	1.4	-1.8	0.7	0.8	0.6	0.2	
Transportation equipment manufacturing	336	-2.6	-2.4	18.5	-0.1	-0.2	-0.3	-0.2	
Motor vehicle manufacturing	3361	-4.6	-1.4	15.8	-1.5	-1.5	-1.5	-1.3	
Motor vehicle body and trailer manufacturing	3362	-13.5	-4.1	2.2	-1.3	-1.5	-1.2	-0.7	
Motor vehicle parts manufacturing	3363	-3.3	3.7	6.7	0.7	0.9	0.9	0.7	
Aerospace product and parts manufacturing	3364	-15.9	-44.4	197.0	5.8	4.5	3.7	4.8	
Ship and boat building	3366	9.1	-5.4	29.0	0.9	1.0	0.6	-0.2	
Miscellaneous manufacturing	339	-2.2	5.4	-9.7	-0.3	-0.4	-0.4	-0.3	
Non-durable goods industries		2.2	-3.0	2.8	-0.1	-0.2	-0.2	-0.3	
Durable goods industries		0.1	-4.5	12.0	0.4	0.4	0.4	0.5	
Manufacturing		1.0	-3.8	7.8	0.2	0.1	0.1	0.1	

Table 8a
Shipments for selected industries, unadjusted

	NAICS Code	Current periods			
		November 2003	October 2003	September 2003	August 2003
\$ millions					
Food manufacturing	311				
Animal food manufacturing	3111	442	481	444	411
Starch and vegetable fat and oil manufacturing	31122	282	300	277	254
Sugar and confectionery product manufacturing	3113	355	420	393	367
Fruit and vegetable preserving and specialty food manufacturing	3114	487	521	500	460
Dairy product manufacturing	3115	946	984	948	965
Meat product manufacturing	3116	1,465	1,493	1,345	1,348
Cookie, cracker and pasta manufacturing	31182	114	128	117	111
Other food manufacturing	3119	523	569	552	500
Beverage and tobacco product manufacturing	312				
Soft drink and ice manufacturing	31211	287	298	313	368
Breweries	31212	325	359	343	397
Wineries	31213	57	53	55	51
Distilleries	31214	96	104	92	86
Tobacco manufacturing	3122	341	320	338	345
Textile mills	313				
Fibre, yarn and thread mills	3131	30	31	33	31
Fabric mills	3132	157	164	174	159
Textile and fabric finishing and fabric coating	3133	51	53	51	49
Textile product mills	314				
Carpet and rug mills	31411	64	71	66	63
Textile bag and canvas mills	31491	20	24	25	26
Clothing manufacturing	315				
Hosiery and sock mills	31511	48	47	42	43
Other clothing knitting mills	31519	61	62	56	52
Men's and boys' cut and sew clothing manufacturing	31522	206	210	197	185
Women's and girls' cut and sew clothing manufacturing	31523	161	191	202	206
Clothing accessories and other clothing manufacturing	3159	19	25	22	19
Leather and allied product manufacturing	316				
Footwear manufacturing	3162	43	58	73	63
Wood product manufacturing	321				
Sawmills and wood preservation	3211	1,166	1,319	1,356	1,291
Veneer, plywood and engineered wood product manufacturing	3212	725	800	739	670
Other wood product manufacturing	3219	503	534	531	525
Paper manufacturing	322				
Pulp, paper and paperboard mills	3221	1,730	1,797	1,831	1,850
Paperboard container manufacturing	32221	418	444	462	439
Paper bag and coated and treated paper manufacturing	32222	152	181	174	159
Other converted paper product manufacturing	32229	129	139	141	133
Printing and related support activities	323				
Printing	32311	856	866	851	759
Support activities for printing	32312	42	45	42	38
Petroleum and coal products manufacturing	324				
Petroleum refineries	32411	2,546	2,506	2,611	2,846
Chemical manufacturing	325				
Other basic inorganic chemical manufacturing	32518	246	243	235	228
Other basic organic chemical manufacturing	32519	191	176	176	211
Resin, synthetic rubber, and artificial and synthetic fibres and filaments manufacturing	3252	494	533	524	493
Pesticide and other agricultural chemical manufacturing	32532	7	11	12	12
Pharmaceutical and medicine manufacturing	3254	709	710	737	605
Paint and coating manufacturing	32551	146	169	179	169
Adhesive manufacturing	32552	52	62	62	59
Soap and cleaning compound manufacturing	32561	100	103	116	116
Toilet preparation manufacturing	32562	137	166	174	153
Printing ink manufacturing	32591	38	41	36	36
All other chemical product manufacturing	32599	345	388	376	319

Table 8a

Shipments for selected industries, unadjusted - continued

	NAICS Code	Current periods			
		November 2003	October 2003	September 2003	August 2003
		\$ millions			
Plastics and rubber products manufacturing	326				
Plastic pipe, pipe fitting and unsupported profile shape manufacturing	32612	140	178	180	179
Polystyrene foam product manufacturing	32614	30	37	34	34
Other plastic product manufacturing	32619	820	894	852	773
Other rubber product manufacturing	32629	194	231	219	197
Non-metallic mineral product manufacturing	327				
Clay product and refractory manufacturing	3271	51	55	57	57
Glass and glass product manufacturing	3272	208	237	229	218
Cement manufacturing	32731	122	165	156	154
Ready-mix concrete manufacturing	32732	219	291	286	264
Other concrete product manufacturing	32739	121	135	123	124
Abrasive product manufacturing	32791	26	29	28	28
All other non-metallic mineral product manufacturing	32799	126	150	141	118
Primary metal manufacturing	331				
Iron and steel mills and ferro-alloy manufacturing	3311	853	948	895	790
Iron and steel pipes and tubes manufacturing from purchased steel	33121	247	269	241	227
Foundries	3315	253	278	291	248
Fabricated metal product manufacturing	332				
Cutlery and hand tool manufacturing	3322	46	47	45	38
Plate work and fabricated structural product manufacturing	33231	379	417	435	393
Power boiler and heat exchanger manufacturing	33241	113	114	152	101
Spring and wire product manufacturing	3326	97	108	113	105
Coating, engraving, heat treating and allied activities	3328	213	243	230	203
Other fabricated metal product manufacturing	3329	234	254	260	238
Machinery manufacturing	333				
Agricultural implement manufacturing	33311	154	155	166	129
Ventilation, heating, air-conditioning and commercial refrigeration equipment manufacturing	3334	205	229	212	187
All other general-purpose machinery manufacturing	33399	144	189	157	134
Computer and electronic product manufacturing	334				
Computer and peripheral equipment manufacturing	3341	290	238	407	298
Communications equipment manufacturing	3342	442	403	516	368
Audio and video equipment manufacturing	3343	19	18	17	14
Electrical equipment, appliance and component manufacturing	335				
Lighting fixture manufacturing	33512	70	73	77	70
Small electrical appliance manufacturing	33521	26	25	24	20
Major appliance manufacturing	33522	127	131	118	109
Battery manufacturing	33591	15	13	14	12
Communication and energy wire and cable manufacturing	33592	106	110	109	97
All other electrical equipment and component manufacturing	33599	70	65	74	67
Transportation equipment manufacturing	336				
Motor vehicle manufacturing	3361	4,951	5,464	5,362	4,370
Motor vehicle parts manufacturing	3363	2,647	3,003	2,797	2,525
Aerospace product and parts manufacturing	3364	829	987	854	841
Railroad rolling stock manufacturing	3365	247	194	235	156
Ship and boat building	3366	71	71	67	64
Furniture and related product manufacturing	337				
Household and institutional furniture and kitchen cabinet manufacturing	3371	587	626	625	568
Office furniture (including fixtures) manufacturing	3372	347	359	374	357
Miscellaneous manufacturing	339				
Medical equipment and supplies manufacturing	3391	121	135	127	106
Other miscellaneous manufacturing	3399	354	389	363	354

Table 8a

Shipments for selected industries, unadjusted - continued

	NAICS Code	Previous year		Year-to-date		Annual	
		November 2002	October 2002	% Change from 2002	2003	% Change from 2001	2002
\$ millions							
Food manufacturing	311						
Animal food manufacturing	3111	458	487	-3.4	4,773	6.1	5,392
Starch and vegetable fat and oil manufacturing	31122	247	263	12.0	2,881	3.3	2,811
Sugar and confectionery product manufacturing	3113	346	398	8.2	3,776	1.4	3,846
Fruit and vegetable preserving and specialty food manufacturing	3114	503	541	-4.0	5,209	-1.7	5,923
Dairy product manufacturing	3115	844	857	13.1	10,209	1.2	9,887
Meat product manufacturing	3116	1,438	1,451	-5.0	15,327	-6.6	17,674
Cookie, cracker and pasta manufacturing	31182	129	131	-5.4	1,237	-7.7	1,425
Other food manufacturing	3119	515	523	6.8	5,574	11.9	5,723
Beverage and tobacco product manufacturing	312						
Soft drink and ice manufacturing	31211	282	296	5.8	3,553	5.2	3,688
Breweries	31212	303	356	0.2	3,738	2.0	4,103
Wineries	31213	59	68	-1.1	524	11.8	585
Distilleries	31214	147	133	-15.1	985	9.1	1,265
Tobacco manufacturing	3122	280	252	6.1	3,523	1.3	3,663
Textile mills	313						
Fibre, yarn and thread mills	3131	38	40	-17.3	360	-5.0	465
Fabric mills	3132	165	176	-7.7	1,771	-3.2	2,067
Textile and fabric finishing and fabric coating	3133	53	62	-12.2	554	-4.1	678
Textile product mills	314						
Carpet and rug mills	31411	78	81	-7.7	763	-3.6	890
Textile bag and canvas mills	31491	30	34	-31.0	279	7.2	429
Clothing manufacturing	315						
Hosiery and sock mills	31511	58	52	-4.9	449	0.4	511
Other clothing knitting mills	31519	64	71	10.4	523	0.1	519
Men's and boys' cut and sew clothing manufacturing	31522	243	232	-10.2	1,966	-4.9	2,360
Women's and girls' cut and sew clothing manufacturing	31523	168	204	-6.8	1,954	-3.7	2,221
Clothing accessories and other clothing manufacturing	3159	23	27	-3.9	218	-4.0	242
Leather and allied product manufacturing	316						
Footwear manufacturing	3162	49	62	-12.9	420	-5.8	518
Wood product manufacturing	321						
Sawmills and wood preservation	3211	1,285	1,492	-15.1	14,034	4.4	17,697
Veneer, plywood and engineered wood product manufacturing	3212	514	573	16.8	6,744	6.1	6,230
Other wood product manufacturing	3219	514	557	8.0	5,561	18.2	5,571
Paper manufacturing	322						
Pulp, paper and paperboard mills	3221	2,018	2,050	-6.5	20,185	-6.8	23,505
Paperboard container manufacturing	32221	454	486	7.7	4,874	3.4	4,914
Paper bag and coated and treated paper manufacturing	32222	180	187	-7.4	1,899	3.0	2,212
Other converted paper product manufacturing	32229	140	148	-0.2	1,475	0.6	1,610
Printing and related support activities	323						
Printing	32311	856	871	0.4	8,817	-1.4	9,557
Support activities for printing	32312	48	50	-1.4	457	-37.0	504
Petroleum and coal products manufacturing	324						
Petroleum refineries	32411	2,619	2,869	14.2	30,149	0.8	29,276
Chemical manufacturing	325						
Other basic inorganic chemical manufacturing	32518	243	243	5.3	2,633	6.8	2,726
Other basic organic chemical manufacturing	32519	234	224	2.3	2,340	1.8	2,521
Resin, synthetic rubber, and artificial and synthetic fibres and filaments manufacturing	3252	522	554	1.4	5,971	0.6	6,379
Pesticide and other agricultural chemical manufacturing	32532	3	4	33.1	439	-13.4	341
Pharmaceutical and medicine manufacturing	3254	767	728	3.9	7,862	22.0	8,402
Paint and coating manufacturing	32551	135	159	2.9	1,819	-1.4	1,875
Adhesive manufacturing	32552	46	55	6.9	630	12.2	624
Soap and cleaning compound manufacturing	32561	121	138	-9.2	1,275	-7.5	1,516
Toilet preparation manufacturing	32562	133	157	9.2	1,669	3.2	1,663
Printing ink manufacturing	32591	38	40	1.1	394	13.3	419
All other chemical product manufacturing	32599	354	389	2.1	3,859	2.6	4,104

Table 8a

Shipments for selected industries, unadjusted - continued

NAICS Code	Previous year		Year-to-date		Annual		
	November 2002	October 2002	% Change from 2002	2003	% Change from 2001	2002	
\$ millions							
Plastics and rubber products manufacturing	326						
Plastic pipe, pipe fitting and unsupported profile shape manufacturing	32612	144	172	5.1	1,737	4.2	1,758
Polystyrene foam product manufacturing	32614	28	30	10.6	332	3.8	321
Other plastic product manufacturing	32619	773	842	1.5	8,910	8.6	9,435
Other rubber product manufacturing	32629	200	225	-0.4	2,241	0.0	2,409
Non-metallic mineral product manufacturing	327						
Clay product and refractory manufacturing	3271	52	61	7.8	616	5.0	613
Glass and glass product manufacturing	3272	209	225	3.2	2,319	6.2	2,396
Cement manufacturing	32731	122	158	0.6	1,357	5.7	1,425
Ready-mix concrete manufacturing	32732	216	271	4.3	2,300	9.1	2,337
Other concrete product manufacturing	32739	110	122	5.8	1,109	1.3	1,127
Abrasive product manufacturing	32791	47	43	-11.0	365	36.5	450
All other non-metallic mineral product manufacturing	32799	122	140	10.7	1,334	28.8	1,314
Primary metal manufacturing	331						
Iron and steel mills and ferro-alloy manufacturing	3311	874	935	2.5	9,794	11.3	10,368
Iron and steel pipes and tubes manufacturing from purchased steel	33121	232	224	12.2	2,605	1.4	2,529
Foundries	3315	278	296	0.6	2,963	8.7	3,161
Fabricated metal product manufacturing	332						
Cutlery and hand tool manufacturing	3322	46	46	13.9	484	6.3	467
Plate work and fabricated structural product manufacturing	33231	359	411	-0.8	3,951	0.4	4,286
Power boiler and heat exchanger manufacturing	33241	90	98	33.9	1,256	7.6	1,022
Spring and wire product manufacturing	3326	127	139	-11.7	1,220	9.8	1,477
Coating, engraving, heat treating and allied activities	3328	234	258	-0.8	2,426	20.0	2,633
Other fabricated metal product manufacturing	3329	253	280	-3.2	2,728	9.5	3,005
Machinery manufacturing	333						
Agricultural implement manufacturing	33311	152	182	-13.0	1,880	6.1	2,323
Ventilation, heating, air-conditioning and commercial refrigeration equipment manufacturing	3334	205	223	-3.0	2,075	9.7	2,298
All other general-purpose machinery manufacturing	33399	180	270	-24.1	1,599	15.4	2,275
Computer and electronic product manufacturing	334						
Computer and peripheral equipment manufacturing	3341	303	316	-22.9	3,316	-16.6	4,699
Communications equipment manufacturing	3342	475	550	-28.2	4,635	-23.7	7,137
Audio and video equipment manufacturing	3343	22	21	-9.4	178	-7.2	218
Electrical equipment, appliance and component manufacturing	335						
Lighting fixture manufacturing	33512	76	82	-7.2	756	-3.7	877
Small electrical appliance manufacturing	33521	27	28	0.2	232	-9.3	250
Major appliance manufacturing	33522	128	130	-3.9	1,370	12.4	1,529
Battery manufacturing	33591	13	12	7.0	136	-15.1	139
Communication and energy wire and cable manufacturing	33592	105	118	-19.0	1,091	-42.2	1,436
All other electrical equipment and component manufacturing	33599	66	66	3.8	738	-2.3	772
Transportation equipment manufacturing	336						
Motor vehicle manufacturing	3361	5,862	6,065	-5.8	58,157	5.7	65,797
Motor vehicle parts manufacturing	3363	2,833	2,989	-4.4	29,278	10.2	32,741
Aerospace product and parts manufacturing	3364	1,110	1,099	-8.4	10,393	-15.0	12,472
Railroad rolling stock manufacturing	3365	275	253	-4.5	2,535	5.4	2,878
Ship and boat building	3366	63	70	-23.6	901	20.6	1,242
Furniture and related product manufacturing	337						
Household and institutional furniture and kitchen cabinet manufacturing	3371	594	650	-3.3	6,403	7.7	7,133
Office furniture (including fixtures) manufacturing	3372	377	420	2.8	4,080	-6.0	4,319
Miscellaneous manufacturing	339						
Medical equipment and supplies manufacturing	3391	118	130	-2.6	1,287	5.3	1,432
Other miscellaneous manufacturing	3399	380	403	0.2	3,773	9.7	4,095

Table 8b
Inventory owned for selected industries, unadjusted

	NAICS Code	Current periods			
		November 2003	October 2003	September 2003	August 2003
\$ millions					
Food manufacturing	311				
Animal food manufacturing	3111	275	272	277	280
Starch and vegetable fat and oil manufacturing	31122	202	209	169	151
Sugar and confectionery product manufacturing	3113	380	354	370	388
Fruit and vegetable preserving and specialty food manufacturing	3114	985	986	955	881
Dairy product manufacturing	3115	792	795	788	780
Meat product manufacturing	3116	803	823	812	803
Cookie, cracker and pasta manufacturing	31182	122	122	121	123
Other food manufacturing	3119	523	538	534	505
Beverage and tobacco product manufacturing	312				
Soft drink and ice manufacturing	31211	238	242	249	257
Breweries	31212	170	172	169	176
Wineries	31213	227	228	222	212
Distilleries	31214	431	445	473	497
Tobacco manufacturing	3122	665	631	578	570
Textile mills	313				
Fibre, yarn and thread mills	3131	50	54	48	50
Fabric mills	3132	297	311	321	328
Textile and fabric finishing and fabric coating	3133	65	63	67	67
Textile product mills	314				
Carpet and rug mills	31411	77	81	84	82
Textile bag and canvas mills	31491	43	42	44	45
Clothing manufacturing	315				
Hosiery and sock mills	31511	131	152	156	157
Other clothing knitting mills	31519	106	110	119	124
Men's and boys' cut and sew clothing manufacturing	31522	360	401	425	391
Women's and girls' cut and sew clothing manufacturing	31523	353	339	360	373
Clothing accessories and other clothing manufacturing	3159	76	77	82	83
Leather and allied product manufacturing	316				
Footwear manufacturing	3162	72	77	86	102
Wood product manufacturing	321				
Sawmills and wood preservation	3211	2,358	2,366	2,479	2,515
Veneer, plywood and engineered wood product manufacturing	3212	646	624	623	629
Other wood product manufacturing	3219	835	852	840	819
Paper manufacturing	322				
Pulp, paper and paperboard mills	3221	2,465	2,448	2,424	2,470
Paperboard container manufacturing	32221	543	535	541	535
Paper bag and coated and treated paper manufacturing	32222	258	263	272	272
Other converted paper product manufacturing	32229	144	143	144	146
Printing and related support activities	323				
Printing	32311	695	693	694	708
Support activities for printing	32312	9	8	8	8
Petroleum and coal products manufacturing	324				
Petroleum refineries	32411	1,215	1,236	1,255	1,432
Chemical manufacturing	325				
Other basic inorganic chemical manufacturing	32518	232	222	210	201
Other basic organic chemical manufacturing	32519	154	153	160	150
Resin, synthetic rubber, and artificial and synthetic fibres and filaments manufacturing	3252	558	560	549	545
Pesticide and other agricultural chemical manufacturing	32532	117	113	118	125
Pharmaceutical and medicine manufacturing	3254	3,098	2,987	2,850	3,159
Paint and coating manufacturing	32551	248	251	250	259
Adhesive manufacturing	32552	90	87	88	87
Soap and cleaning compound manufacturing	32561	99	98	98	103
Toilet preparation manufacturing	32562	185	178	185	193
Printing ink manufacturing	32591	50	51	53	56
All other chemical product manufacturing	32599	284	290	296	295

Table 8b

Inventory owned for selected industries, unadjusted - continued

	NAICS Code	Current periods			
		November 2003	October 2003	September 2003	August 2003
		\$ millions			
Plastics and rubber products manufacturing	326				
Plastic pipe, pipe fitting and unsupported profile shape manufacturing	32612	188	190	198	209
Polystyrene foam product manufacturing	32614	36	38	38	38
Other plastic product manufacturing	32619	871	880	856	868
Other rubber product manufacturing	32629	169	170	168	173
Non-metallic mineral product manufacturing	327				
Clay product and refractory manufacturing	3271	75	73	75	77
Glass and glass product manufacturing	3272	271	270	275	274
Cement manufacturing	32731	145	139	148	155
Ready-mix concrete manufacturing	32732	108	115	105	104
Other concrete product manufacturing	32739	100	97	94	95
Abrasive product manufacturing	32791	115	109	112	116
All other non-metallic mineral product manufacturing	32799	141	140	143	145
Primary metal manufacturing	331				
Iron and steel mills and ferro-alloy manufacturing	3311	1,908	1,898	1,921	1,994
Iron and steel pipes and tubes manufacturing from purchased steel	33121	572	550	548	547
Foundries	3315	284	269	255	265
Fabricated metal product manufacturing	332				
Cutlery and hand tool manufacturing	3322	78	78	78	78
Plate work and fabricated structural product manufacturing	33231	442	430	454	474
Power boiler and heat exchanger manufacturing	33241	150	151	149	164
Spring and wire product manufacturing	3326	112	117	116	125
Coating, engraving, heat treating and allied activities	3328	154	148	152	162
Other fabricated metal product manufacturing	3329	540	544	555	560
Machinery manufacturing	333				
Agricultural implement manufacturing	33311	537	520	503	495
Ventilation, heating, air-conditioning and commercial refrigeration equipment manufacturing	3334	335	341	345	359
All other general-purpose machinery manufacturing	33399	387	421	443	435
Computer and electronic product manufacturing	334				
Computer and peripheral equipment manufacturing	3341	546	563	554	548
Communications equipment manufacturing	3342	2,040	2,020	1,989	2,023
Audio and video equipment manufacturing	3343	53	52	52	52
Electrical equipment, appliance and component manufacturing	335				
Lighting fixture manufacturing	33512	122	123	131	131
Small electrical appliance manufacturing	33521	52	53	50	48
Major appliance manufacturing	33522	180	173	165	168
Battery manufacturing	33591	77	77	75	71
Communication and energy wire and cable manufacturing	33592	246	248	249	263
All other electrical equipment and component manufacturing	33599	107	109	108	110
Transportation equipment manufacturing	336				
Motor vehicle manufacturing	3361	1,223	1,214	1,297	1,210
Motor vehicle parts manufacturing	3363	1,921	1,866	1,867	1,837
Aerospace product and parts manufacturing	3364	7,687	7,484	7,829	7,938
Railroad rolling stock manufacturing	3365	979	1,034	1,076	1,100
Ship and boat building	3366	137	132	122	108
Furniture and related product manufacturing	337				
Household and institutional furniture and kitchen cabinet manufacturing	3371	780	775	795	792
Office furniture (including fixtures) manufacturing	3372	407	403	402	408
Miscellaneous manufacturing	339				
Medical equipment and supplies manufacturing	3391	176	175	180	184
Other miscellaneous manufacturing	3399	813	810	816	792

Table 8b

Inventory owned for selected industries, unadjusted - continued

	NAICS Code	Previous year		Year-to-date		Average per month	
		November 2002	October 2002	% Change from 2002	Average 2003	% Change from 2001	2002
\$ millions							
Food manufacturing	311						
Animal food manufacturing	3111	266	265	4.1	274	7.2	263
Starch and vegetable fat and oil manufacturing	31122	222	197	4.0	193	6.5	189
Sugar and confectionery product manufacturing	3113	383	375	1.3	365	-1.3	359
Fruit and vegetable preserving and specialty food manufacturing	3114	1,008	988	3.6	893	7.6	868
Dairy product manufacturing	3115	769	748	6.0	792	5.3	748
Meat product manufacturing	3116	882	843	-8.0	819	-1.6	884
Cookie, cracker and pasta manufacturing	31182	126	126	9.6	125	-1.9	115
Other food manufacturing	3119	470	489	2.2	495	4.4	482
Beverage and tobacco product manufacturing	312						
Soft drink and ice manufacturing	31211	264	265	-1.4	253	13.8	253
Breweries	31212	177	179	1.9	172	10.2	168
Wineries	31213	225	224	5.9	221	12.6	209
Distilleries	31214	501	522	3.4	499	12.1	484
Tobacco manufacturing	3122	592	562	0.0	606	-6.2	602
Textile mills	313						
Fibre, yarn and thread mills	3131	55	56	-10.2	53	-22.3	58
Fabric mills	3132	334	343	-11.7	328	-7.1	368
Textile and fabric finishing and fabric coating	3133	68	63	12.2	67	-7.4	60
Textile product mills	314						
Carpet and rug mills	31411	82	84	1.7	83	-21.6	81
Textile bag and canvas mills	31491	64	66	-31.9	47	5.1	67
Clothing manufacturing	315						
Hosiery and sock mills	31511	131	142	8.0	147	-0.7	136
Other clothing knitting mills	31519	96	102	13.2	118	0.2	103
Men's and boys' cut and sew clothing manufacturing	31522	360	368	10.0	405	-19.9	369
Women's and girls' cut and sew clothing manufacturing	31523	342	338	-1.5	345	-7.8	351
Clothing accessories and other clothing manufacturing	3159	63	64	17.2	75	-14.6	64
Leather and allied product manufacturing	316						
Footwear manufacturing	3162	79	89	-5.2	89	-10.9	92
Wood product manufacturing	321						
Sawmills and wood preservation	3211	2,730	2,717	-3.8	2,897	-9.8	2,996
Veneer, plywood and engineered wood product manufacturing	3212	647	636	6.6	694	-4.4	652
Other wood product manufacturing	3219	851	804	8.5	865	7.2	801
Paper manufacturing	322						
Pulp, paper and paperboard mills	3221	2,513	2,525	-2.3	2,496	-8.5	2,549
Paperboard container manufacturing	32221	507	490	5.7	545	-5.0	514
Paper bag and coated and treated paper manufacturing	32222	258	252	8.1	272	2.2	254
Other converted paper product manufacturing	32229	148	149	1.3	149	-3.8	147
Printing and related support activities	323						
Printing	32311	693	705	-0.3	690	-4.4	688
Support activities for printing	32312	11	15	-38.0	9	-42.6	14
Petroleum and coal products manufacturing	324						
Petroleum refineries	32411	1,163	1,286	1.1	1,344	-12.4	1,322
Chemical manufacturing	325						
Other basic inorganic chemical manufacturing	32518	171	169	7.1	197	-4.3	184
Other basic organic chemical manufacturing	32519	150	152	8.9	157	-23.8	146
Resin, synthetic rubber, and artificial and synthetic fibres and filaments manufacturing	3252	531	531	8.7	569	-18.9	525
Pesticide and other agricultural chemical manufacturing	32532	116	107	-11.2	120	-20.3	133
Pharmaceutical and medicine manufacturing	3254	2,910	2,808	16.0	3,068	32.8	2,665
Paint and coating manufacturing	32551	239	238	2.9	258	-9.1	249
Adhesive manufacturing	32552	80	79	8.4	88	15.5	81
Soap and cleaning compound manufacturing	32561	108	106	-20.6	104	-11.8	129
Toilet preparation manufacturing	32562	182	177	17.2	188	-6.8	162
Printing ink manufacturing	32591	49	49	4.3	52	-4.2	50
All other chemical product manufacturing	32599	309	329	-1.2	308	-0.9	312

Table 8b

Inventory owned for selected industries, unadjusted - concluded

	NAICS Code	Previous year		Year-to-date		Average per month	
		November 2002	October 2002	% Change from 2002	Average 2003	% Change from 2001	2002
\$ millions							
Plastics and rubber products manufacturing	326						
Plastic pipe, pipe fitting and unsupported profile shape manufacturing	32612	229	222	-2.8	216	-6.3	223
Polystyrene foam product manufacturing	32614	31	32	21.7	38	1.6	31
Other plastic product manufacturing	32619	898	856	6.1	894	7.8	848
Other rubber product manufacturing	32629	187	185	-3.7	181	-7.2	189
Non-metallic mineral product manufacturing	327						
Clay product and refractory manufacturing	3271	86	85	-4.4	85	-12.2	89
Glass and glass product manufacturing	3272	258	256	1.0	275	2.8	272
Cement manufacturing	32731	154	152	-5.9	177	-1.9	187
Ready-mix concrete manufacturing	32732	101	95	-0.7	102	-8.6	102
Other concrete product manufacturing	32739	76	73	13.6	93	1.3	82
Abrasive product manufacturing	32791	144	155	-18.9	124	32.0	151
All other non-metallic mineral product manufacturing	32799	145	143	2.6	144	0.9	141
Primary metal manufacturing	331						
Iron and steel mills and ferro-alloy manufacturing	3311	2,304	2,251	0.6	2,038	-1.1	2,050
Iron and steel pipes and tubes manufacturing from purchased steel	33121	609	611	10.0	586	6.7	543
Foundries	3315	295	287	-0.2	286	1.0	287
Fabricated metal product manufacturing	332						
Cutlery and hand tool manufacturing	3322	83	85	-1.4	81	9.3	83
Plate work and fabricated structural product manufacturing	33231	438	449	2.8	462	2.9	448
Power boiler and heat exchanger manufacturing	33241	155	157	14.2	168	27.1	148
Spring and wire product manufacturing	3326	161	160	-10.2	139	-7.4	154
Coating, engraving, heat treating and allied activities	3328	157	168	2.0	158	16.4	156
Other fabricated metal product manufacturing	3329	541	551	1.7	558	3.6	548
Machinery manufacturing	333						
Agricultural implement manufacturing	33311	536	522	3.3	525	1.5	510
Ventilation, heating, air-conditioning and commercial refrigeration equipment manufacturing	3334	326	342	0.6	349	6.8	345
All other general-purpose machinery manufacturing	33399	392	397	10.6	400	12.2	363
Computer and electronic product manufacturing	334						
Computer and peripheral equipment manufacturing	3341	600	591	-6.7	568	-42.7	607
Communications equipment manufacturing	3342	2,416	2,243	-14.9	2,102	-19.6	2,447
Audio and video equipment manufacturing	3343	57	60	6.7	54	-10.6	51
Electrical equipment, appliance and component manufacturing	335						
Lighting fixture manufacturing	33512	148	157	-16.1	135	-2.7	160
Small electrical appliance manufacturing	33521	44	46	15.0	49	-19.2	43
Major appliance manufacturing	33522	162	161	10.0	176	10.6	160
Battery manufacturing	33591	63	65	-3.9	68	44.2	70
Communication and energy wire and cable manufacturing	33592	291	284	-9.5	266	-42.2	291
All other electrical equipment and component manufacturing	33599	108	114	-3.6	108	-24.2	111
Transportation equipment manufacturing	336						
Motor vehicle manufacturing	3361	1,788	1,677	-18.8	1,400	2.9	1,730
Motor vehicle parts manufacturing	3363	1,873	1,768	9.6	1,918	3.9	1,762
Aerospace product and parts manufacturing	3364	8,121	7,853	0.1	7,813	0.3	7,817
Railroad rolling stock manufacturing	3365	1,461	1,414	-13.4	1,152	-14.0	1,338
Ship and boat building	3366	136	134	-14.9	124	-35.7	145
Furniture and related product manufacturing	337						
Household and institutional furniture and kitchen cabinet manufacturing	3371	819	795	5.8	814	9.7	772
Office furniture (including fixtures) manufacturing	3372	419	413	4.6	417	-11.1	398
Miscellaneous manufacturing	339						
Medical equipment and supplies manufacturing	3391	173	177	-2.9	176	-5.8	180
Other miscellaneous manufacturing	3399	922	921	-3.2	849	5.4	879

Table 9
Inventories owned by stage of fabrication

Period covered	Unadjusted			
	Raw materials	Goods in process	Finished products	Total inventories
November 2002	27,237	16,282	19,610	63,129
December 2002	27,600	15,742	19,047	62,389
January 2003	27,863	15,527	19,210	62,601
February 2003	28,300	15,874	19,806	63,980
March 2003	28,431	15,820	20,261	64,512
April 2003	27,952	16,165	20,478	64,595
May 2003	27,058	16,224	20,385	63,666
June 2003	26,529	15,841	19,923	62,293
July 2003	26,620	15,470	19,333	61,423
August 2003	26,525	15,537	18,891	60,953
September 2003	25,922	15,261	18,814	59,997
October 2003	25,977	14,968	18,573	59,518
November 2003	25,787	15,266	18,858	59,911
Period covered	Seasonally adjusted			
	Raw materials	Goods in process	Finished products	Total inventories
November 2002	27,331	16,014	19,643	62,989
December 2002	27,591	15,943	19,626	63,161
January 2003	27,471	15,952	19,506	62,929
February 2003	27,661	15,917	19,730	63,307
March 2003	27,779	15,774	19,815	63,368
April 2003	27,726	16,150	20,023	63,898
May 2003	27,388	15,978	19,991	63,358
June 2003	27,085	15,773	19,777	62,635
July 2003	26,948	15,661	19,476	62,085
August 2003	26,686	15,415	19,012	61,113
September 2003	26,255	15,182	18,982	60,420
October 2003	26,071	14,930	18,924	59,924
November 2003	25,913	15,099	18,916	59,928

Table 10
Shipments by major group and province, unadjusted

Province	Current year			
	November 2003	October 2003	September 2003	August 2003
	\$ millions			
Total				
Newfoundland and Labrador	179	195	229	237
Prince Edward Island	111	122	134	113
Nova Scotia	743	770	757	759
New Brunswick	1,077	1,061	1,154	1,168
Quebec	9,867	10,516	10,532	10,003
Ontario	22,398	24,273	23,879	20,803
Manitoba	954	1,055	1,026	916
Saskatchewan	594	680	647	597
Alberta	3,524	3,782	3,656	3,640
British Columbia	2,655	2,830	2,946	2,876
311 Food manufacturing				
Newfoundland and Labrador	63	54	79	93
Prince Edward Island	73	87	95	78
Nova Scotia	186	210	205	203
New Brunswick	170	212	224	168
Quebec	1,226	1,298	1,231	1,202
Ontario	2,174	2,353	2,212	2,063
Manitoba	266	283	253	245
Saskatchewan	164	169	159	151
Alberta	777	790	715	747
British Columbia	351	375	382	395
312 Beverage and tobacco product manufacturing				
Nova Scotia	18	22	19	25
Quebec	355	344	364	396
Ontario	541	560	549	581
Saskatchewan	4	5	5	6
British Columbia	77	83	82	99
313 Textile mills				
Quebec	150	154	162	157
Ontario	68	75	72	62
314 Textile product mills				
Quebec	79	84	80	81
Ontario	73	89	82	74
Alberta	3	3	3	3
British Columbia	9	9	8	9
315 Clothing manufacturing				
Quebec	282	330	331	339
Ontario	181	176	163	148
Manitoba	40	45	44	37
Saskatchewan	3	3	2	2
Alberta	10	9	6	6
British Columbia	23	26	25	25
316 Leather and allied product manufacturing				
Quebec	33	48	64	56
Ontario	18	19	19	17
321 Wood product manufacturing				
Nova Scotia	48	47	50	48
Quebec	658	746	708	678
Ontario	478	513	503	465
Manitoba	46	58	58	52
Saskatchewan	52	65	57	51
Alberta	233	247	242	225
British Columbia	722	797	839	802

Table 10
Shipments by major group and province, unadjusted - continued

Province	Current year			
	November 2003	October 2003	September 2003	August 2003
	\$ millions			
322 Paper manufacturing				
Nova Scotia	83	73	70	76
Quebec	833	901	911	909
Ontario	750	800	799	773
Alberta	122	135	121	142
British Columbia	395	390	443	425
323 Printing and related support activities				
Quebec	239	252	236	227
Ontario	473	469	471	391
Manitoba	38	38	38	33
Saskatchewan	9	11	11	11
Alberta	56	58	58	51
British Columbia	51	49	51	58
324 Petroleum and coal products manufacturing				
Quebec	622	628	626	689
Ontario	862	946	907	886
Alberta	613	641	706	765
British Columbia	59	64	62	66
325 Chemical manufacturing				
Quebec	711	726	722	685
Ontario	1,634	1,785	1,799	1,568
Manitoba	61	63	75	38
Saskatchewan	30	44	45	19
Alberta	521	602	517	525
British Columbia	97	95	89	115
326 Plastics and rubber products manufacturing				
Nova Scotia	91	97	94	84
Quebec	460	515	483	448
Ontario	1,150	1,256	1,199	1,054
Manitoba	41	48	45	43
Saskatchewan	9	9	9	9
Alberta	82	100	102	111
British Columbia	92	104	101	99
327 Non-metallic mineral product manufacturing				
Nova Scotia	15	16	16	17
Quebec	254	301	300	295
Ontario	483	576	551	510
Saskatchewan	5	13	14	12
Alberta	106	150	149	145
British Columbia	119	131	135	128
331 Primary metal manufacturing				
Quebec	998	1,090	1,108	1,014
Ontario	1,349	1,462	1,403	1,195
Alberta	88	102	77	79
332 Fabricated metal product manufacturing				
Newfoundland and Labrador	17	16	17	18
Prince Edward Island	4	2	2	2
Nova Scotia	23	30	29	37
New Brunswick	24	26	26	26
Quebec	487	536	509	468
Ontario	1,300	1,465	1,465	1,262
Manitoba	61	74	71	75
Saskatchewan	42	45	43	42
Alberta	295	295	315	273
British Columbia	124	135	167	132

Table 10

Shipments by major group and province, unadjusted - continued

Province	Current year			
	November 2003	October 2003	September 2003	August 2003
	\$ millions			
333 Machinery manufacturing				
Quebec	423	369	446	344
Ontario	948	1,026	1,011	810
Manitoba	77	76	78	67
Saskatchewan	43	53	49	44
Alberta	249	288	256	219
British Columbia	156	161	147	143
334 Computer and electronic product manufacturing				
Quebec	421	412	566	404
Ontario	950	864	1,071	847
Saskatchewan	8	10	9	9
Alberta	101	83	114	71
British Columbia	65	69	77	65
335 Electrical equipment, appliance and component manufacturing				
Quebec	260	267	273	244
Ontario	391	389	433	350
Manitoba	13	14	14	10
Saskatchewan	12	15	13	13
Alberta	49	41	46	39
British Columbia	30	29	30	30
336 Transportation equipment manufacturing				
Nova Scotia	58	60	56	48
Quebec	920	1,045	942	922
Ontario	7,877	8,690	8,400	7,041
Manitoba	111	128	130	115
Saskatchewan	22	26	24	22
Alberta	64	75	68	68
British Columbia	77	82	79	83
337 Furniture and related product manufacturing				
Quebec	277	294	291	284
Ontario	533	559	587	533
Manitoba	61	68	62	58
Saskatchewan	6	6	7	7
Alberta	63	67	66	62
British Columbia	42	45	49	46
339 Miscellaneous manufacturing				
Newfoundland and Labrador	1	1	1	1
Quebec	179	175	179	162
Ontario	165	203	184	171
Manitoba	9	10	7	6
Saskatchewan	4	4	4	4
Alberta	33	36	33	38
British Columbia	61	70	60	56

Table 10
Shipments by major group and province, unadjusted - continued

	Previous year		Year-to-date		Annual	
	November 2002	October 2002	% Change from 2002	2003	% Change from 2001	2002
	\$ millions					
Total						
Newfoundland and Labrador	189	185	5.7	2,175	1.3	2,234
Prince Edward Island	105	128	0.9	1,227	9.5	1,316
Nova Scotia	752	832	1.9	8,072	1.3	8,646
New Brunswick	972	1,162	3.8	11,988	3.1	12,632
Quebec	10,390	11,145	-2.5	109,530	0.9	122,059
Ontario	24,052	25,338	-2.1	251,879	3.4	277,581
Manitoba	980	1,021	0.8	10,694	0.6	11,538
Saskatchewan	564	635	3.4	6,911	1.3	7,239
Alberta	3,578	3,793	5.2	39,460	-3.4	40,966
British Columbia	2,719	2,944	-2.5	30,756	0.4	34,236
311 Food manufacturing						
Newfoundland and Labrador	57	70	-9.6	756	10.3	891
Prince Edward Island	80	93	-2.0	859	8.0	952
Nova Scotia	192	218	-0.5	2,018	2.2	2,234
New Brunswick	133	182	-3.0	1,816	4.6	2,004
Quebec	1,200	1,232	4.6	12,957	1.4	13,573
Ontario	2,158	2,246	1.8	23,358	-0.1	25,085
Manitoba	253	261	1.0	2,782	4.3	3,023
Saskatchewan	161	164	4.1	1,728	3.3	1,825
Alberta	751	771	-1.3	8,204	-1.0	9,055
British Columbia	344	377	4.1	4,047	3.4	4,270
312 Beverage and tobacco product manufacturing						
Nova Scotia	16	18	14.6	221	1.5	213
Quebec	319	317	3.4	3,840	5.7	4,093
Ontario	538	570	0.8	5,978	2.6	6,514
Saskatchewan	4	4	-36.1	56	-7.8	92
British Columbia	81	84	2.9	922	9.1	990
313 Textile mills						
Quebec	164	182	-11.3	1,703	-2.6	2,069
Ontario	73	76	-11.8	755	-5.3	912
314 Textile product mills						
Quebec	87	97	-8.2	871	-2.1	1,020
Ontario	92	98	-11.5	939	3.8	1,138
Alberta	3	3	8.9	29	-14.4	28
British Columbia	12	14	-32.1	95	4.0	153
315 Clothing manufacturing						
Quebec	339	388	-8.7	3,364	-7.4	3,937
Ontario	209	200	-13.2	1,637	6.6	2,020
Manitoba	39	45	-2.2	342	13.1	376
Saskatchewan	3	3	9.5	22	-5.6	22
Alberta	11	8	-5.0	77	-6.8	89
British Columbia	21	27	2.2	251	-15.8	263
316 Leather and allied product manufacturing						
Quebec	39	51	-9.2	368	-18.8	430
Ontario	21	22	-19.7	164	11.9	225
321 Wood product manufacturing						
Nova Scotia	42	50	0.3	493	10.1	530
Quebec	648	713	1.4	7,196	11.9	7,637
Ontario	444	508	-2.2	5,124	7.7	5,622
Manitoba	43	48	7.3	501	-13.5	501
Saskatchewan	43	47	29.2	509	39.0	430
Alberta	184	198	6.4	2,243	2.8	2,265
British Columbia	768	906	-14.2	8,654	4.8	10,830

Table 10

Shipments by major group and province, unadjusted - continued

	Previous year		Year-to-date		Annual	
	November 2002	October 2002	% Change from 2002	2003	% Change from 2001	2002
	\$ millions					
322 Paper manufacturing						
Nova Scotia	78	85	3.3	830	-17.9	881
Quebec	1,013	1,085	-7.3	10,011	-2.7	11,729
Ontario	858	885	-5.6	8,801	-3.6	10,091
Alberta	140	142	-0.2	1,413	4.0	1,553
British Columbia	425	400	5.4	4,608	-11.7	4,790
323 Printing and related support activities						
Quebec	249	246	1.0	2,555	-11.3	2,749
Ontario	480	488	-1.4	4,845	2.0	5,351
Manitoba	38	42	-4.0	387	-6.4	436
Saskatchewan	9	12	7.2	104	6.1	106
Alberta	49	53	2.7	544	-5.4	574
British Columbia	51	51	-10.1	508	-10.7	608
324 Petroleum and coal products manufacturing						
Quebec	644	724	15.5	7,124	6.7	6,845
Ontario	950	943	10.7	9,887	-2.9	9,861
Alberta	687	781	12.7	7,712	1.0	7,491
British Columbia	55	65	0.7	701	-4.8	754
325 Chemical manufacturing						
Quebec	739	743	-0.4	7,993	6.8	8,711
Ontario	1,680	1,820	4.7	19,289	7.8	20,076
Manitoba	58	54	20.0	674	-12.6	616
Saskatchewan	27	49	19.2	642	-10.8	562
Alberta	601	606	9.7	6,407	-6.7	6,456
British Columbia	91	98	15.2	1,137	7.1	1,076
326 Plastics and rubber products manufacturing						
Nova Scotia	104	106	-8.5	980	6.9	1,141
Quebec	447	493	4.7	5,076	10.7	5,208
Ontario	1,143	1,208	-0.1	12,823	6.9	13,805
Manitoba	42	45	1.7	481	7.5	508
Saskatchewan	8	10	8.9	101	5.4	98
Alberta	82	101	3.2	985	-4.0	1,023
British Columbia	78	90	12.1	1,049	-3.1	1,008
327 Non-metallic mineral product manufacturing						
Nova Scotia	16	18	-1.3	150	1.2	162
Quebec	234	290	5.4	2,696	10.8	2,701
Ontario	494	549	5.8	5,181	4.9	5,264
Saskatchewan	6	12	-7.2	101	-8.2	113
Alberta	134	161	-3.4	1,360	24.1	1,510
British Columbia	113	130	5.9	1,339	17.0	1,357
331 Primary metal manufacturing						
Quebec	1,025	1,149	-0.8	11,610	7.8	12,712
Ontario	1,400	1,474	2.4	15,134	11.9	16,003
Alberta	67	84	16.1	942	-10.7	896
332 Fabricated metal product manufacturing						
Newfoundland and Labrador	9	9	84.1	149	-15.5	88
Prince Edward Island	2	3	8.8	25	-1.5	25
Nova Scotia	28	30	13.3	273	17.2	264
New Brunswick	21	28	-2.0	244	-5.7	268
Quebec	457	524	-0.7	4,924	1.8	5,329
Ontario	1,356	1,491	-3.3	14,596	4.7	16,165
Manitoba	63	62	17.7	757	-2.0	707
Saskatchewan	31	38	10.3	427	-6.5	416
Alberta	259	246	23.7	3,004	-2.7	2,637
British Columbia	134	138	-0.9	1,486	2.2	1,609

Table 10
Shipments by major group and province, unadjusted - concluded

	Previous year		Year-to-date		Annual	
	November 2002	October 2002	% Change from 2002	2003	% Change from 2001	2002
	\$ millions					
333 Machinery manufacturing						
Quebec	355	386	-2.1	4,104	0.2	4,587
Ontario	1,054	1,217	-9.8	10,773	4.1	12,943
Manitoba	79	80	-8.8	883	9.4	1,042
Saskatchewan	44	55	-10.8	548	7.4	662
Alberta	239	251	0.6	2,662	-14.5	2,872
British Columbia	155	156	9.8	1,577	8.7	1,594
334 Computer and electronic product manufacturing						
Quebec	499	576	-19.5	4,842	-18.1	6,588
Ontario	937	929	-11.5	9,670	-13.9	11,900
Saskatchewan	7	8	8.5	92	12.7	94
Alberta	109	108	-24.9	928	-29.9	1,392
British Columbia	74	78	-8.8	726	-17.7	879
335 Electrical equipment, appliance and component manufacturing						
Quebec	239	261	0.7	2,731	10.6	2,930
Ontario	452	443	-8.6	4,411	-12.2	5,210
Manitoba	15	17	-20.2	134	-14.7	183
Saskatchewan	11	14	-31.6	135	-45.0	208
Alberta	32	35	33.7	406	9.5	328
British Columbia	33	29	4.7	331	-32.9	345
336 Transportation equipment manufacturing						
Nova Scotia	51	64	-25.5	610	29.7	862
Quebec	1,219	1,196	-15.0	11,011	-7.0	14,134
Ontario	8,981	9,349	-4.1	90,189	6.5	100,483
Manitoba	141	133	0.2	1,474	0.2	1,603
Saskatchewan	30	31	-12.7	285	21.7	349
Alberta	61	61	10.0	790	0.5	785
British Columbia	80	79	-17.3	995	-4.9	1,283
337 Furniture and related product manufacturing						
Quebec	280	303	-1.9	3,010	11.4	3,293
Ontario	552	621	0.3	6,139	-2.2	6,629
Manitoba	64	69	-3.0	667	11.3	743
Saskatchewan	7	7	-10.1	75	3.3	89
Alberta	73	79	-8.4	708	-3.9	838
British Columbia	46	49	3.8	497	14.4	525
339 Miscellaneous manufacturing						
Newfoundland and Labrador	1	1	-33.4	12	22.1	18
Quebec	191	188	-6.3	1,542	11.3	1,785
Ontario	180	200	3.9	2,189	6.8	2,284
Manitoba	9	9	-12.7	86	-11.0	107
Saskatchewan	4	4	9.4	44	-2.0	44
Alberta	40	47	-10.8	363	7.8	440
British Columbia	53	61	8.1	593	15.0	606

Survey documentation

- About the Monthly Survey of Manufacturing
- Concepts and definitions
- Survey Design and Methodology
- Data Quality

About the Monthly Survey of Manufacturing

The statistics contained in this publication are based on information obtained through a sample survey of 11,000 representative manufacturing establishments across Canada. The Monthly Survey of Manufacturers started in 1947 and although its content has remained essentially the same, it underwent a major redesign with respect to the frame in 1999.

The values (in Canadian dollars) of shipments, inventories and orders are used as indicators of the economic condition of manufacturing industries; as inputs to Canada's Gross Domestic Product; as two components in the Statistics Canada composite indicator; as input to macro- and micro-economic studies and in econometric models (e.g. to determine market share, apparent domestic availability, etc.).

Since 1999, Statistics Canada's Business Register provides the sampling frame for the Monthly Survey of Manufacturing (MSM). The target population for the MSM consists of all statistical establishments on the business register that are classified to the manufacturing sector. The sampling frame for the MSM is determined from the target population after subtracting establishments that represent the bottom 2% of the total manufacturing shipments estimate for each province. These establishments are excluded from the frame so that the sample size can be reduced without significantly affecting quality.

Concepts and Definitions

The Monthly Survey of Manufacturing (MSM) publishes statistical series for manufacturers – shipments, inventories, unfilled orders and new orders. The values of these characteristics represent current monthly estimates of the more complete Annual Survey of Manufactures (ASM) data.

The MSM is a sample survey of approximately 11,000 Canadian manufacturing establishments, which are categorized into over 200 industries. Industries are classified according to the 1997 North American Industrial Classification System (NAICS), which replaced the 1980 Standard Industrial Classification (SIC) system. Reference year 2000 is the last year for which data are released on a SIC basis. The MSM adopted the NAICS for its 2001 reference, while previous years' data have been re-calculated to the new classification system back to 1992. Seasonally adjusted series are available for the main aggregates.

An establishment comprises the smallest manufacturing unit capable of reporting the variables of interest. Data collected by the MSM provides a current 'snapshot' of shipment values by the Canadian manufacturing sector, enabling analysis of the state of the Canadian economy, as well as the health of specific industries in the short- to medium-term. The information is used by both private and public sectors including Statistics Canada, federal and provincial governments, business and trade entities, international and domestic non-governmental organizations, consultants, the business press and private citizens. The data are used for analyzing market share, trends, corporate benchmarking, policy analysis, program development, tax policy and trade policy.

1. Shipments

Shipments are defined as the value of goods manufactured by establishments that have been shipped to a customer. Shipments exclude any wholesaling activity, and any revenues from the rental of equipment or the sale of electricity. Note that in practice, some respondents report financial transactions rather than payments for work done. Shipments are available by 3-digit NAICS, broken down by province.

For the aerospace product and parts, and shipbuilding industries, the value of production is used instead of shipments. This value is calculated by adjusting monthly shipments by the monthly change in goods in process and finished product inventories. Raw materials are not included in the calculation since production tries to measure "work done" during the month. This is done in order to reduce distortions caused by the shipment of high value items as completed sales.

2. Inventories

Measurement of component values of inventory is important for economic studies as well as for derivation of production values. Respondents are asked to report their book values (at cost), of raw materials, any goods in process, and finished product inventories separately. In some cases, respondents estimate a total inventory figure, which is allocated on the basis of proportions reported on the ASM. Inventory levels are calculated on a Canadawide basis, not by province.

3. Orders

a) Unfilled Orders

Unfilled orders represent a backlog or stock of orders that will generate future shipments assuming that they are not cancelled. As with inventories, unfilled orders and new orders levels are calculated on a Canadawide basis, not by province.

The MSM produces estimates for unfilled orders for all industries except for those industries where orders are customarily filled from stocks on hand and order books are not generally maintained. In the case of the aircraft companies, options to purchase are not treated as orders until they are entered into the accounting system.

b) New Orders

New orders represent current demand for manufactured products. Estimates of new orders are derived from shipments and unfilled orders data. All shipments within a month result from either an order received during the month or at some earlier time. New orders can be calculated as the sum of shipments adjusted for the monthly change in unfilled orders.

4. Non-Durable / Durable goods

a) Non-durable goods industries

Non-durable goods industries include Food (NAICS 311), Beverage and Tobacco Products (312), Textile Mills (313), Textile Product Mills (314), Leather and Allied Products (316), Paper (322), Printing and Related Support Activities (323), Petroleum and Coal Products (324), Chemicals (325) and Plastic and Rubber Products (326)

b) Durable goods industries

Durable goods industries include Clothing (NAICS 315), Wood Products (321), Non-Metallic Mineral Products (327), Primary Metals (331), Fabricated Metal Products (332), Machinery (333), Computer and Electronic Products (334), Electrical Equipment, Appliance and Components (335), Transportation Equipment (336), Furniture and Related Products (337) and Miscellaneous Manufacturing (339).

Survey Design and Methodology

Beginning with the August 1999 reference month, the Monthly Survey of Manufacturing (MSM) has undergone an extensive redesign.

Concept Review

It was decided that before any redesign work could begin the basic concepts and definitions of the program would be confirmed.

This was done in two ways: First, a review of user requirements was initiated. This involved revisiting an internal report to ensure that the user requirements from that exercise were being satisfied. As well, another round of internal review with the major users in the National Accounts was undertaken. This was to specifically focus on any data gaps that could be identified.

Secondly, with these gaps or requirements in hand, a survey was conducted in order to ascertain respondent's ability to report existing and new data. The study was also to confirm that respondents understood the definitions, which were being asked by survey analysts.

The result of the concept review was a reduction of the number of questions for the survey from sixteen to seven. Most of the questions that were dropped had to do with the reporting of shipments for work that was partially completed.

Methodology

The new sample design incorporates the 1997 North American Industrial Classification Standard (NAICS) and gives a much higher profile to provincial estimates. Stratification is done by province with equal quality requirements for each province. Large size units are selected with certainty and small units are selected with a probability based on the desired quality of the estimate within a cell.

The opportunity was also taken at this time to allow for the introduction of sample rotation into the survey design. Most of the smaller companies who are asked to participate in the survey will do so only for a set period.

The estimation system generates estimates using the NAICS. The estimates will also continue to be reconciled to the ASM. Provincial estimates for all variables will be produced. A measure of quality (CV) will also be produced.

Components of the Redesigned Survey

Target Population and Sampling Frame

Statistics Canada's business register provides the sampling frame for the MSM. The target population for the MSM consists of all statistical establishments on the business register that are classified to the manufacturing sector (by NAICS). The sampling frame for the MSM is determined from the target population after subtracting establishments that represent the bottom 2% of the total manufacturing shipments estimate for each province. These establishments were excluded from the frame so that the sample size could be reduced without significantly affecting quality.

The Sample

The MSM sample is a probability sample comprised of approximately 11,000 establishments.

Prior to selection, the sampling frame is subdivided into industry-province cells. For the most part, NAICS codes were used. Depending upon the number of establishments within each cell, further subdivisions were made to group similar sized establishments' together (called stratum). An establishment's size was based on its most recently available annual shipments or sales value.

Each industry by province cell has a 'take-all' stratum composed of establishments sampled each month with certainty. This 'take-all' stratum is composed of establishments that are the largest statistical enterprises, and have the largest impact on estimates within a particular industry by province cell. These large statistical enterprises comprise 45% of the national manufacturing shipment estimates.

Each industry - province cell can have at most three 'take-some' strata. Not all establishments within these strata need to be sampled with certainty. A random sample is drawn from the remaining strata. The responses from these sampled establishments are weighted according to the inverse of their probability of selection.

The initial sample was selected in late 1998 and has been refreshed each month by including a sample of new entrants in the frame.

Data Collection

Data collection, data capture, preliminary edit and follow-up of non-respondents are all performed in Statistics Canada regional offices. Sampled establishments are contacted by mail or telephone according to the preference of the respondent. Data capture and preliminary editing are performed simultaneously to ensure the validity of the data.

In some cases, combined reports are received from enterprises or companies with more than one establishment in the sample where respondents prefer not to provide individual establishment reports. Businesses, which do not report or whose reports contain errors, are followed up immediately.

Data Quality

Statistical Edit and Imputation

Data are analyzed within each industry-province cell. Extreme values are listed for inspection by the magnitude of the deviation from average behavior. Respondents are contacted to verify extreme values. Records that fail statistical edits are considered outliers and are not used for imputation.

Values are imputed for the non-responses, for establishments that do not report or only partially complete the survey form. A number of imputation methods are used depending on the variable requiring treatment. Methods include using industry-province cell trends, historical responses, or reference to the ASM. Following imputation, the MSM staff performs a final verification of the responses that have been imputed.

Revisions

In conjunction with preliminary estimates for the current month, estimates for the previous three months are revised to account for any late returns. Data are revised when late responses are received or if an incorrect response was reported earlier.

Estimation

Estimates are calculated by multiplying an estimation weight to an establishment's reported responses. The estimation weight is the inverse of the sampled establishment's probability of selection. Take all units are self-representative.

Benchmarking

The MSM is periodically benchmarked to the most recent results of the Annual Survey of Manufactures (approximately eighteen months after the end of the reference year). Benchmarking is a process designed to calibrate the monthly estimates to the level of the more complete Annual Survey of Manufacturers. The result is that the two surveys have consistent totals at the aggregated level. The MSM estimates were benchmarked to the 1998 ASM with the release of the January 2001 reference month.

Sampling and Non-sampling Errors

The statistics in this publication are estimates derived from a sample survey and, as such, can be subject to errors. The following material is provided to assist the reader in the interpretation of the estimates published.

Estimates derived from a sample survey are subject to a number of different kinds of errors. These errors can be broken down into two major types: sampling and non-sampling.

1. Sampling Errors

Sampling errors are an inherent risk of sample surveys. They result from the difference between the value of a variable if it is randomly sampled and its value if a census is taken (or the average of all possible random values). These errors are present because observations are made only on a sample and not on the entire population.

The sampling error depends on factors such as the size of the sample, variability in the population, sampling design and method of estimation. For example, for a given sample size, the sampling error will depend on the stratification procedure employed, allocation of the sample, choice of the sampling units and method of selection. (Further, even for the same sampling design, we can make different calculations to arrive at the most efficient estimation procedure.) The most important feature of probability sampling is that the sampling error can be measured from the sample itself.

2. Non-sampling Errors

Non-sampling errors result from a systematic flaw in the structure of the data-collection procedure or design of any or all variables examined. They create a difference between the value of a variable obtained by sampling or census methods and the variable's true value. These errors are present whether a sample or a complete census of the population is taken. Non-sampling errors can be attributed to one or more of the following sources:

a) Coverage error: This error can result from incomplete listing and inadequate coverage of the population of interest.

b) Data response error: This error may be due to questionnaire design, the characteristics of a question, inability or unwillingness of the respondent to provide correct information, misinterpretation of the questions or definitional problems.

c) Non-response error: Some respondents may refuse to answer questions, some may be unable to respond, and others may be too late in responding. Data for the non-responding units can be imputed using the data from responding units or some earlier data on the non-responding units if available.

The extent of error due to imputation is usually unknown and is very much dependent on any characteristic differences between the respondent group and the non-respondent group in the survey. This error generally decreases with increases in the response rate and attempts are therefore made to obtain as high a response rate as possible.

d) Processing error: These errors may occur at various stages of processing such as coding, data entry, verification, editing, weighting, and tabulation, etc. Non-sampling errors are difficult to measure. More important, non-sampling errors require control at the level at which their presence does not impair the use and interpretation of the results.

Measures have been undertaken to minimize the non-sampling errors. For example, units have been defined in a most precise manner and the most up-to-date listings have been used. Questionnaires have been carefully designed to minimize different interpretations. As well, detailed acceptance testing has been carried out for the different stages of editing and processing and every possible effort has been made to reduce the non-response rate as well as the response burden.

Measures of Sampling and Non-sampling Errors

1. Sampling Error Measures

The sample used in this survey is one of a large number of all possible samples of the same size that could have been selected using the same sample design under the same general conditions. If it was possible that each one of these samples could be surveyed under essentially the same conditions, with an estimate calculated from each sample, it would be expected that the sample estimates would differ from each other.

The average estimate derived from all these possible sample estimates is termed the expected value. The expected value can also be expressed as the value that would be obtained if a census enumeration were taken under identical conditions of collection and processing. An estimate calculated from a sample survey is said to be precise if it is near the expected value.

Sample estimates may differ from this expected value of the estimates. However, since the estimate is based on a probability sample, the variability of the sample estimate with respect to its expected value can be measured. The variance of an estimate is a measure of the precision of the sample estimate and is defined as the average, over all possible samples, of the squared difference of the estimate from its expected value.

The standard error is a measure of precision in absolute terms. The coefficient of variation, defined as the standard error divided by the sample estimate, is a measure of precision in relative terms. For comparison purposes, one may more readily compare the sampling error of one estimate to the sampling error of another estimate by using the coefficient of variation.

In this publication, the coefficient of variation is used to measure the sampling error of the estimates. However, since the coefficient of variation published for this survey is calculated from the responses of individual units, it also measures some non-sampling error.

The formula used to calculate the published coefficients of variation (CV) in Table 1 is:

$$CV(X) = \frac{S(X)}{X}$$

where X denotes the estimate and S(X) denotes the standard error of X.

In this publication, the coefficient of variation is expressed as a percentage.

Confidence intervals can be constructed around the estimate using the estimate and the coefficient of variation. Thus, for our sample, it is possible to state with a given level of confidence that the expected value will fall within the confidence interval constructed around the estimate. For example, if an estimate of \$12,000,000 has a coefficient of variation of 10%, the standard error will be \$1,200,000 or the estimate multiplied by the coefficient of variation. It can then be stated with 68% confidence that the expected value will fall within the interval whose length equals the standard deviation about the estimate, i.e., between \$10,800,000 and \$13,200,000. Alternatively, it can be stated with 95% confidence that the expected value will fall within the interval whose length equals two standard deviations about the estimate, i.e., between \$9,600,000 and \$14,400,000.

The table below contains the national level CVs, expressed as a percentage, for all manufacturing for the MSM characteristics. For CVs at other aggregate levels, contact the Marketing and Dissemination Section at (613) 951-9497, toll free: 1-866-873-8789 or by e-mail at *manufact@statcan.ca*.

National Level CVs by Characteristic

Month	Shipments	Raw Material Inventories	Goods in Process Inventories	Finished Product Inventories	Unfilled Orders	%					
November 2002	0.50	0.91	0.72	1.25	1.85						
December 2002	0.54	0.92	0.74	1.20	1.82						
January 2003	0.52	0.89	0.75	1.25	1.81						
February 2003	0.52	0.89	0.73	1.25	1.78						
March 2003	0.52	0.92	0.76	1.26	1.75						
April 2003	0.54	0.91	0.78	1.28	1.68						
May 2003	0.55	0.95	0.73	1.29	1.60						
June 2003	0.56	0.97	0.69	1.36	1.55						
July 2003	0.61	1.02	0.70	1.46	1.51						
August 2003	0.54	1.08	0.70	1.42	1.62						
September 2003	0.55	1.14	0.75	1.48	2.03						
October 2003	0.55	1.23	0.80	1.48	2.01						
November 2003	0.58	1.29	0.79	1.40	2.06						

2. Non-sampling Error Measures

The exact population value is aimed at or desired by both a sample survey as well as a census. We say the estimate is accurate if it is near this value. Although this value is desired, we cannot assume that the exact value of every unit in the population or sample can be obtained and processed without error. Any difference between the expected value and the exact population value is termed the bias. Systematic biases in the data cannot be measured by the probability measures of sampling error as previously described. The accuracy of a survey estimate is determined by the joint effect of sampling and non-sampling errors.

Three sources of non-sampling error in the MSM are non-response error, imputation error and the error due to editing. To assist users in evaluating these errors, weighted rates that are related to these three types of error are given in Table 2. The following is an example of what is meant by a weighted rate. A cell with a sample of 20 units in which five respond for a particular month would have a response rate of 25%. If these five reporting units represented \$8 million out of a total estimate of \$10 million, the weighted response rate would be 80%.

The definitions of the three weighted rates noted in Table 2 follow. The weighted response rate is the proportion of a characteristic's total estimate that is based upon reported data (excluding data that has been edited). The weighted imputation rate is the proportion of a characteristic's total estimate that is based upon imputed data. The weighted editing rate is the proportion of a characteristic's total estimate that is based upon data that was edited (edited data may have been originally reported or imputed).

The table below contains the three types of weighted rates for each of the characteristics at the national level for all of manufacturing. In the table, the rates (expressed as percentages) are averages over the last thirteen months.

Average National Weighted Rates by Characteristic

Characteristic	Response	Imputation	Editing
		%	
Shipments	92.04	5.17	2.79
Raw Materials	78.83	18.06	3.11
Goods in Process	69.11	10.51	20.38
Finished Products	78.88	14.09	7.03
Unfilled Orders	85.47	7.04	7.49

Joint Interpretation of Measures of Error

The measure of non-response error as well as the coefficient of variation must be considered jointly to have an overview of the quality of the estimates. The lower the coefficient of variation and the higher the weighted response rate, the better will be the published estimate.

Seasonal Adjustment

Economic time series contain the elements essential to the description, explanation and forecasting of the behavior of an economic phenomenon. They are statistical records of

the evolution of economic processes through time. In using time series to observe economic activity, economists and statisticians have identified four characteristic behavioral components: the long-term movement or trend, the cycle, the seasonal variations and the irregular fluctuations. These movements are caused by various economic, climatic or institutional factors. The seasonal variations occur periodically on a more or less regular basis over the course of a year. These variations occur as a result of seasonal changes in weather, statutory holidays and other events that occur at fairly regular intervals and thus have a significant impact on the rate of economic activity.

In the interest of accurately interpreting the fundamental evolution of an economic phenomenon and producing forecasts of superior quality, Statistics Canada uses the X11ARIMA/88 seasonal adjustment method to seasonally adjust its time series. This method minimizes the impact of seasonal variations on the series and essentially consists of adding one year of estimated raw data to the end of the original series before it is seasonally adjusted per se. The estimated data are derived from forecasts using ARIMA (Auto Regressive Integrated Moving Average) models of the Box-Jenkins type.

The X-11 part of the X11ARIMA/88 program uses primarily a ratio-to-moving average method. It is used to smooth the modified series and obtain a preliminary estimate of the trend-cycle. It also calculates the ratios of the original series (fitted) to the estimates of the trend-cycle and estimates the seasonal factors from these ratios. The final seasonal factors are produced only after these operations have been repeated several times.

The procedures to determine the seasonal factors necessary to calculate the final seasonally adjusted data are executed every month. This approach ensures that the estimated seasonal factors are derived from an unadjusted series that includes all the available information about the series, i.e. the current month's unadjusted data as well as the previous month's revised unadjusted data.

While seasonal adjustment permits a better understanding of the underlying trend-cycle of a series, the seasonally adjusted series still contains an irregular component. Slight month-to-month variations in the seasonally adjusted series may be simple irregular movements. To get a better idea of the underlying trend, users should examine several months of the seasonally adjusted series.

The Canada seasonally adjusted total is derived indirectly by the summation of the individually seasonally adjusted kinds of business.

Trend

A seasonally adjusted series may contain the effects of irregular influences and special circumstances and these can mask the trend. The short term trend shows the underlying direction in seasonally adjusted series by averaging across months, thus smoothing out the effects of irregular influences. The result is a more stable series. The trend for the last month may be, subject to significant revision as values in future months are included in the averaging process.



Manufacturing, Construction
and Energy Division

Monthly Survey of Manufacturing

Division de la fabrication,
de la construction et de l'énergie

Enquête mensuelle sur les industries manufacturières

Confidential when completed

Collected under the authority of the
*Statistics Act, Revised Statutes of
Canada, 1985, Chapter S19.*

Confidentiel une fois rempli

Y-A	M
-----	---

Renseignements recueillis en vertu de
La *Loi sur la statistique*, Lois révisées
du Canada, 1985, chapitre S19.

// / / / / -

If you need assistance, please call telephone No. below.
Si vous avez besoin d'aide, veuillez téléphoner au n° suivant.

Telephone/Téléphone:

Toll Free/Numéro sans frais:

Fax/Télécopieur:

Toll Free Fax/Télécopieur sans frais:



<<

>>

INFORMATION SHARING AGREEMENTS:

To reduce response burden and to ensure more uniform statistics, Statistics Canada has entered into agreements with government departments and agencies for the sharing of data. See the second page for details of the agreements concerning this survey.

ENTENTES DE PARTAGE DES DONNÉES :

Pour alléger le fardeau de réponse et assurer des statistiques plus uniformes, Statistique Canada a conclu des ententes avec des ministères et organismes publics en vue d'un échange de données. Voir la deuxième page pour détails sur les accords concernant cette enquête.

Please correct name, address and establishment coverage if necessary – Veuillez corriger le nom, l'adresse et le regroupement d'établissements s'il y a lieu.

<ul style="list-style-type: none"> When values are not available by the due date, estimates are acceptable. Do not report cumulative or year-to-date values. Leave blank spaces only where values are not normally reported. 		<ul style="list-style-type: none"> Lorsque les valeurs ne sont pas disponibles à la date d'échéance, on peut accepter un estimé de ces valeurs. Ne donnez pas des chiffres cumulatifs. Laissez un espace en blanc seulement où les valeurs ne sont pas normalement rapportées. 	
1. Shipments – Livraisons		2. Inventories – Stocks manufacturiers	
Omit cents – Omettre les cents			
a) Goods of own manufacture Produits de propre fabrication	01	a) Raw materials, fuel, supplies, Matières premières, combustible, fournitures	04
b) Goods purchased for resale Produits achetés pour la revente	02	b) Goods in Process (gross value) Produits en cours (valeur brute)	05
TOTAL	03	c) Finished products of own manufacture Produits finis de propre fabrication	06
		d) Goods purchased for resale Produits achetés pour la revente	07
		TOTAL	08
3. Orders – Commandes		4. Period – Période	
Unfilled orders at month end Commandes non remplies à la fin du mois	09	Closing date of accounting period covered Date de clôture de la période comptable	10
		Month – Mois	Day – Jour
Name of contact – Nom de la personne-ressource	Tel. No. – N° de tél.		Date
Position – Fonction	Area code. Ind. rég.		Y-A M D-J

Thank you for your cooperation – Merci de votre collaboration

5-3100-1054:2002-05-14 STC/MCE 310-60194 – SQC/MCE 310-60194



Statistics Canada
Statistique Canada

INFORMATION SHARING AGREEMENTS:

Section 11 of the federal Statistics Act provides for the joint collection and sharing of information with provincial statistical agencies which (1) have been established under provincial legislation providing substantially the same provisions for confidentiality and penalties for disclosure of confidential information as the federal Statistics Act, and (2) have the provincial or territorial legislative authority to collect this information on their own. Section 11 therefore was designed to reduce response burden and to facilitate the production of consistent and high quality national and provincial statistics.

A Section 11 agreement is in effect with the Institut de la statistique du Québec with respect to establishments located within the boundaries of that province.

ACCORDS DE PARTAGE DES DONNÉES :

L'article 11 de la Loi fédérale sur la statistique prévoit la collecte conjointe et le partage des données avec les organismes statistiques provinciaux qui 1) ont été établis en vertu d'une loi provinciale prévoyant essentiellement le même degré de protection de la confidentialité et les mêmes sanctions relatives à la divulgation d'information confidentielle que la Loi fédérale sur la statistique, et 2) sont autorisés légalement, par leur province ou leur territoire à recueillir eux-mêmes l'information. L'article 11 vise donc à réduire le fardeau de réponse et à faciliter la production de statistiques cohérentes et de bonne qualité aux niveaux fédéral et provincial.

L'accord en vertu de l'article 11 a été conclu avec l'Institut de la statistique du Québec en ce qui a trait aux établissements situés à l'intérieur des limites de cette province.

Comments – Commentaires
