



Monthly Survey of Manufacturing

August 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 **order@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

August 2003

Published by authority of the Minister responsible for Statistics Canada

© Minister of Industry, 2003

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.

October 2003

Catalogue no. 31-001-XIE, Vol. 57, No. 8

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

The lights dimmed on manufacturers in August. Shipments fell 4.5% to \$40.9 billion, the lowest level since December 2001. The aftermath of the electrical blackout in mid-August, which cloaked much of Ontario in darkness, was one of several factors contributing to the decline.

Power blackout hits hard in Ontario

Shipments in Ontario plunged 7.8% (-\$1.8 billion) to \$21.2 billion in August. The decrease was notably due to the electrical blackout of August 14 and its lingering impact. In the week that followed, Ontarians were requested to conserve power because of low energy supplies. Large decreases in shipments were reported by several industries, including motor vehicles, chemical products and food manufacturing.

Ontario led the six provinces reporting lower shipments in August. Excluding the significant influence of Ontario from the Canada total, manufacturing shipments decreased 0.8%. Quebec manufacturers posted a 2.6% drop (-\$260.0 million) in August, the first since May. The transportation equipment and primary metals industries contributed to the decrease.

Manufacturers hit by many extenuating factors in 2003

The Ontario blackout aside, manufacturers continued to cope with the effects of several short-range but significant shocks in recent months. The Canadian dollar began its ascent at the start of the year. Although the dollar has abated somewhat since the spring, it remains high and continues to jeopardize the profit margins of many Canadian manufacturers reliant on the export market.

In August, Canadian beef remained stalled at the border, as the international ban on exports of beef products continued. The ban was first imposed in late May following the discovery of a single case of bovine spongiform encephalopathy (BSE) in Alberta. In early September, the first shipments of some low-risk cuts of boneless beef crossed the border, as the United States agreed to a partial lifting of the ban.

In addition to these obstacles, market uncertainty remains in the motor vehicle industry. Manufacturers continue to partly gauge production and inventory levels through incentive-induced retail sales. Meanwhile, aerospace manufacturers continue to endure a very depressed global marketplace for new aircraft.

Shipments by province and territory

| | July 2003 | August 2003 | July to August 2003 |
|---|--------------|----------------|---------------------------|
| Seasonally adjusted | | | |
| | \$ millions | | % change |
| Newfoundland and Labrador | 213 | 200 | -6.1 |
| Prince Edward Island | 110 | 97 | -11.8 |
| Nova Scotia | 723 | 716 | -1.0 |
| New Brunswick | 1,019 | 1,094 | 7.4 |
| Quebec | 9,959 | 9,699 | -2.6 |
| Ontario | 23,029 | 21,238 | -7.8 |
| Manitoba | 969 | 971 | 0.2 |
| Saskatchewan | 616 | 601 | -2.6 |
| Alberta | 3,482 | 3,513 | 0.9 |
| British Columbia | 2,748 | 2,793 | 1.6 |
| Yukon, Northwest Territories and Nunavut | 5 | 6 | 28.5 |

Factory jobs decline in 2003

On the job front, manufacturing employment edged down 15,000 in September, bringing jobs losses so far in 2003 to 77,000 (-3.3%), according to the latest report of the Labour Force Survey. This contrasts with 2002, when manufacturing was the engine of job growth.

Majority of manufacturers report lower shipments

In August, 15 of 21 manufacturing industries, accounting for 68% of total shipments, reported decreases. Manufacturers of both durable and non-durable goods posted declines. Shipments of big-ticket durable goods fell 7.1% to \$22.8 billion, the sixth decrease thus far in 2003. Non-durable goods shipments fell back 1.1%, wiping out July's 0.5% gain.

Motor vehicle manufacturing plummets

Motor vehicle manufacturers suffered a major setback in August. Shipments plummeted 23.1% to \$4.4 billion, following a healthy gain in July (+10.5%). Meanwhile, year-to-date shipments are down 4.7% from the same period of 2002.

August marked the largest monthly shipment decline in motor vehicles, in terms of percent change, since October 1996's 29.7% decrease, the result of a three-week strike at General Motors. In June and July of 1998, another GM strike in the United States contributed to a two-month decline in shipments of 31%.

In 2003, production activity in the motor vehicle industry has been volatile. The August 14 blackout, which encompassed much of the manufacturing belt of southern Ontario, resulted in numerous plant closures and production slowdowns. Additionally, some assembly plants were already operating at a reduced capacity for inventory-control measures and for re-tooling purposes, as new models will be launched shortly. Meanwhile, the retail side of the auto sector remains laden with incentives, as manufacturers try to entice consumers to their product.

Other industries report sharp decreases in August

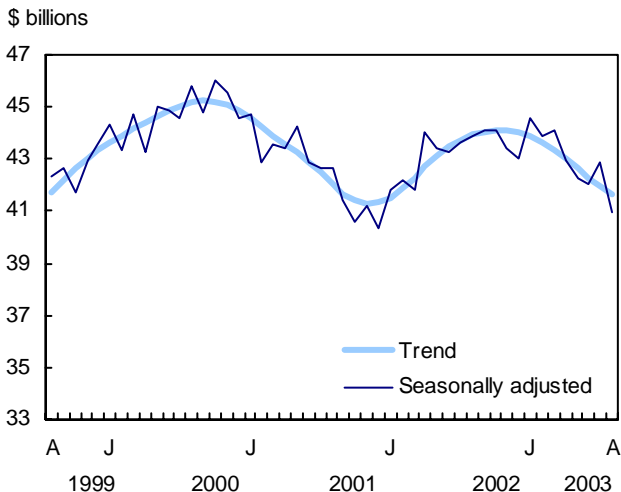
Excluding the motor vehicle and parts industries, shipments fell a sizable 1.6% in August. The chemical products industry reported shipments of \$3.1 billion, down 5.3% from July. The electricity blackout reduced shipment levels at many Ontario-based plants. In addition, some manufacturers had already curtailed production as a result of high input costs of recent months.

The primary metals and aerospace products and parts industries also reported sharp declines in August. Shipments of primary metals fell 4.8% to \$2.6 billion, a 19-month low. Meanwhile, production in the beleaguered aerospace industry decreased 9.6% to \$924 million, the lowest level since March.

Rising industrial prices slightly offset the overall decline in shipments

Higher shipments of wood products and petroleum and coal products partly offset the overall decrease in August. The increases were less related to production volumes, and more to rising industrial prices for these industries. Shipments of wood products rose 3.6% to \$2.4 billion, the highest level in 2003. A sharp upturn in prices since June, the result of continuing strong demand in the North American housing market, and supply concerns due to the forest fire situation in British Columbia have contributed to a significant rise in the value of shipments in recent months.

Shipments slump to a 20-month low



Shipments of petroleum and coal products rose 2.5% to \$2.9 billion in August, entirely the result of a 5.2% jump in petroleum prices. Shipments are at the highest level since April.

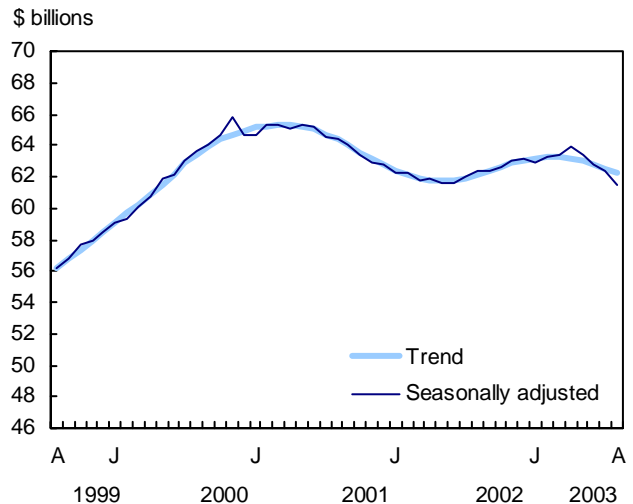
Manufacturers continue to reduce inventories

In August, manufacturers sliced another 1.4% from inventories, the fourth consecutive decline. Inventories were \$61.5 billion, the lowest level in more than three years. August's decrease, which was concentrated in finished-products, was largely attributable to manufacturers drawing down their finished-product inventories to meet product demand. As a result of the blackout, many manufacturers curtailed production activity during the month.

Manufacturers reduced finished-product inventories by 2.4% to \$19.1 billion in August, the lowest level in one year, and the fourth decrease in a row. Meanwhile, raw material (-0.6%) and goods-in-process (-1.6%) inventories were also scaled down during the month.

The primary contributors to the lower inventories in August were the aerospace products and parts (-2.8%), wood products (-3.3%) and motor vehicles (-7.0%) industries.

Manufacturers continue to reduce inventories



August's slide in shipments drives up the inventory-to-shipment ratio

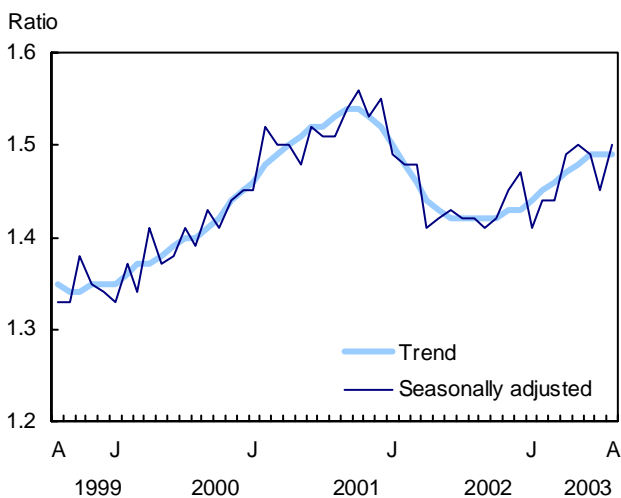
The inventory-to-shipment ratio jumped to 1.50 in August from July's recent low (1.45). The steep drop in manufacturing shipments was responsible for the sizable gain in the ratio. August's level matches that of last May, and is the highest since December 2001 (1.55), a time of stubbornly high inventories relative to weak demand.

The inventory-to-shipment ratio has been inching upwards over the last year. In August 2002, the ratio stood at 1.42.

The finished-product inventory-to-shipment ratio edged up in August to 0.47 from July's 0.46. August's significant decline in finished-product inventories was outpaced by the 4.5% drop in shipments, contributing to the rise in the ratio. The ratio has been on an upward trend since mid-2002.

The finished-product inventory-to-shipment 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.

Big jump in the inventory-to-shipment ratio



Reduced levels of unfilled orders persist

Cancelled orders contributed to an already weakened state for unfilled orders. In August, manufacturers' backlog of unfilled orders fell 1.5% to \$38.4 billion, the lowest level since October 1997. Unfilled orders are often considered a key determinant of future shipments.

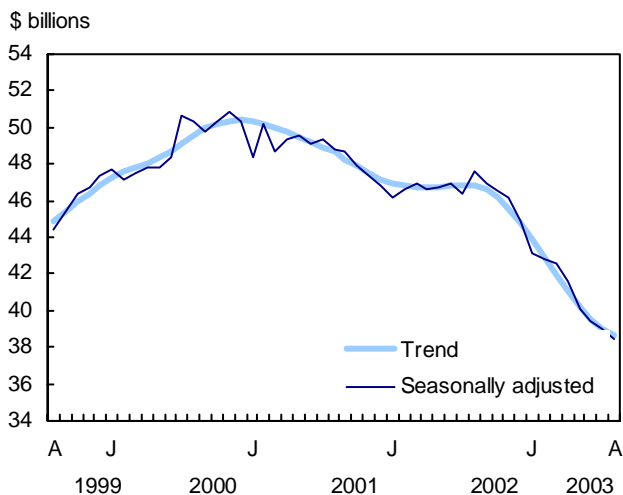
August's decline marked the twelfth straight decrease in unfilled orders. The longest string of consecutive declines was the 14 reported during the 1990-1991 recession.

The global slump in the aviation sector and the subsequent lack of new contracts continued to erode the level of unfilled orders overall. The aerospace products and parts industry reported a 3.8% decrease in orders to \$11.3 billion in August,

marking the twenty-third decline in a row for the beleaguered industry. Excluding the aerospace industry, unfilled orders remained down 0.5%.

Also reporting fewer orders on the books were machinery manufacturers. Unfilled orders fell 1.1% to \$6.0 billion, partly offsetting July's 1.6% gain. Orders for heavy machinery have been slowing since the recent peak of \$7.2 billion in March.

Unfilled orders near a six year low



New orders lose ground

New orders decreased a sizable 4.9% to \$40.3 billion in August, wiping out gains of June (+1.9%) and July (+2.3%). New orders are at their lowest level since December 2001. Widespread decreases were reported in August, including in motor vehicle, machinery and primary metals manufacturing.

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.

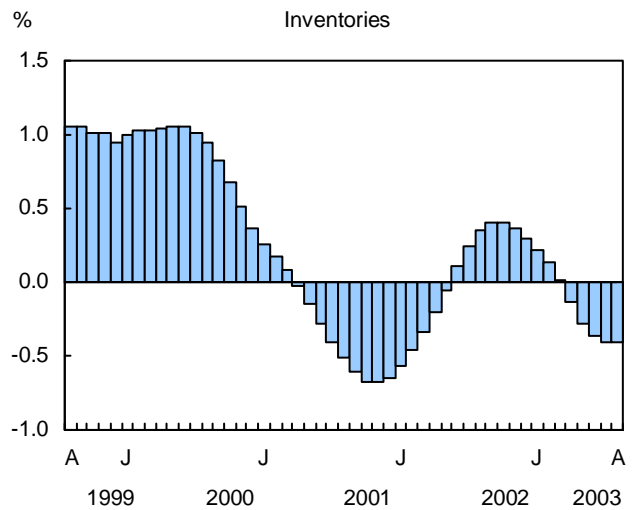
Durable goods industries include clothing, wood products, non-metallic mineral products, primary metals, fabricated metal products, machinery, computer and electronic products, electrical equipment, appliance and components, transportation equipment, furniture and related products and miscellaneous manufacturing.

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

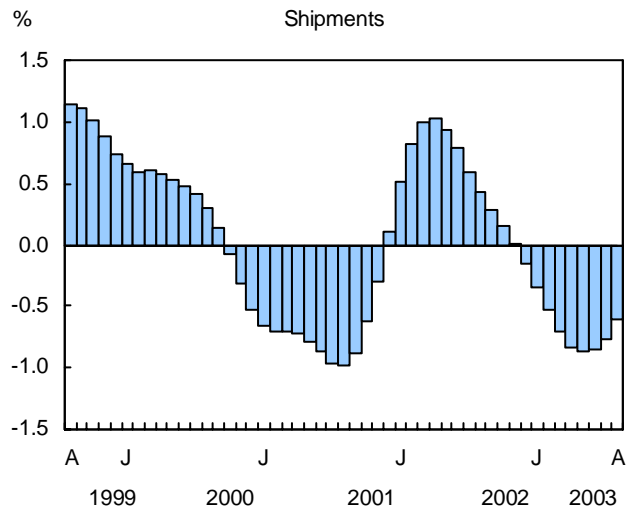
New orders are those received whether shipped in the current month or not. They are measured as the sum of shipments for the current month plus the change in unfilled orders. Some people interpret new orders as orders that will lead to future demand. This is inappropriate since the "new orders" variable 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.

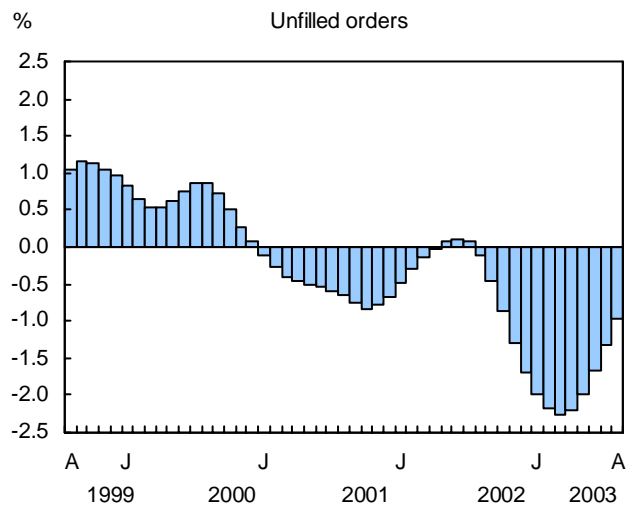
Monthly change in trend



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 | | | | | | | | | | |
| August 2002 | 45,110 | 62,231 | 48,159 | 46,122 | 43,851 | 62,407 | 47,556 | 44,968 | | |
| September 2002 | 45,149 | 62,193 | 47,324 | 44,308 | 44,134 | 62,320 | 46,963 | 43,541 | | |
| October 2002 | 47,191 | 62,295 | 46,773 | 46,640 | 44,132 | 62,580 | 46,491 | 43,660 | | |
| 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 | 43,789 | 62,322 | 39,254 | 42,946 | 42,063 | 62,702 | 39,461 | 41,468 | | |
| July 2003 | 39,413 | 61,558 | 39,197 | 39,357 | 42,874 | 62,349 | 39,009 | 42,422 | | |
| August 2003 | 41,417 | 61,224 | 38,751 | 40,970 | 40,928 | 61,458 | 38,423 | 40,341 | | |
| 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 | |
| August 2002 | 0.5 | 0.4 | 0.7 | 0.3 | 1.42 | 1.42 | 2.4 | -0.1 | 4.2 | 0.2 |
| September 2002 | 0.6 | 0.3 | -0.1 | 0.4 | 1.41 | 1.42 | -1.2 | -0.4 | -3.2 | -0.1 |
| October 2002 | 0.0 | 0.2 | 0.4 | 0.4 | 1.42 | 1.42 | -1.0 | -0.9 | 0.3 | -0.3 |
| November 2002 | -1.7 | 0.0 | 0.7 | 0.4 | 1.45 | 1.43 | -0.8 | -1.3 | -1.5 | -0.4 |
| December 2002 | -0.9 | -0.2 | 0.3 | 0.3 | 1.47 | 1.43 | -2.8 | -1.7 | -3.1 | -0.5 |
| January 2003 | 3.5 | -0.3 | -0.4 | 0.2 | 1.41 | 1.44 | -3.8 | -2.0 | 2.7 | -0.6 |
| 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 | -0.7 | 0.1 | 0.0 | 1.44 | 1.46 | -0.4 | -2.3 | 0.7 | -0.7 |
| April 2003 | -2.5 | -0.8 | 0.8 | -0.1 | 1.49 | 1.47 | -2.3 | -2.2 | -4.4 | -0.7 |
| May 2003 | -1.6 | -0.9 | -0.8 | -0.3 | 1.50 | 1.48 | -3.8 | -2.0 | -3.0 | -0.6 |
| June 2003 | -0.5 | -0.9 | -1.0 | -0.4 | 1.49 | 1.49 | -1.5 | -1.7 | 1.9 | -0.5 |
| July 2003 | 1.9 | -0.8 | -0.6 | -0.4 | 1.45 | 1.49 | -1.1 | -1.3 | 2.3 | -0.4 |
| August 2003 | -4.5 | -0.6 | -1.4 | -0.4 | 1.50 | 1.49 | -1.5 | -1.0 | -4.9 | -0.3 |

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 | | | | | | | | | | |
| August 2002 | 8,832 | 3,490 | 1,939 | 8,995 | 8,590 | 3,493 | 1,894 | 8,750 | | |
| September 2002 | 8,417 | 3,525 | 2,060 | 8,537 | 8,347 | 3,512 | 2,031 | 8,485 | | |
| October 2002 | 9,054 | 3,445 | 1,968 | 8,962 | 8,298 | 3,450 | 1,959 | 8,226 | | |
| 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 | 8,403 | 3,238 | 1,583 | 8,405 | 7,776 | 3,307 | 1,605 | 7,776 | | |
| July 2003 | 5,318 | 3,156 | 1,607 | 5,342 | 8,296 | 3,235 | 1,600 | 8,290 | | |
| August 2003 | 6,930 | 3,053 | 1,601 | 6,924 | 6,908 | 3,068 | 1,611 | 6,920 | | |
| | Month to month % change | | | | Inventory to shipments ratio | | Month to month % change | | | |
| | Shipments | | Inventories | | | | Unfilled orders | | New orders | |
| | Seasonally adjusted | Trend | Seasonally adjusted | Trend | Seasonally adjusted | Trend | Seasonally adjusted | Trend | Seasonally adjusted | Trend |
| August 2002 | -2.4 | -0.1 | -2.3 | 0.6 | 0.41 | 0.41 | 9.2 | 2.7 | -1.0 | -0.2 |
| September 2002 | -2.8 | -0.4 | 0.6 | 0.5 | 0.42 | 0.42 | 7.3 | 1.9 | -3.0 | -0.6 |
| October 2002 | -0.6 | -0.6 | -1.8 | 0.5 | 0.42 | 0.42 | -3.5 | 0.7 | -3.1 | -0.9 |
| November 2002 | -2.1 | -0.7 | 3.9 | 0.4 | 0.44 | 0.43 | -1.4 | -0.5 | -1.6 | -1.0 |
| December 2002 | -10.7 | -0.7 | 4.6 | 0.2 | 0.52 | 0.43 | -4.1 | -1.6 | -11.3 | -0.9 |
| January 2003 | 13.5 | -0.6 | -5.3 | -0.2 | 0.43 | 0.43 | -2.0 | -2.4 | 14.2 | -0.8 |
| February 2003 | -1.9 | -0.7 | 0.8 | -0.6 | 0.44 | 0.43 | -2.1 | -2.8 | -2.0 | -0.7 |
| March 2003 | 3.2 | -0.9 | -2.4 | -1.1 | 0.42 | 0.43 | -2.8 | -2.9 | 3.1 | -0.9 |
| April 2003 | -3.5 | -1.2 | -0.2 | -1.4 | 0.43 | 0.43 | -2.9 | -2.7 | -3.6 | -1.2 |
| May 2003 | -1.3 | -1.7 | -2.7 | -1.5 | 0.43 | 0.43 | -4.4 | -2.2 | -1.6 | -1.5 |
| June 2003 | -2.0 | -2.1 | -2.6 | -1.5 | 0.43 | 0.43 | 0.0 | -1.4 | -1.1 | -1.9 |
| July 2003 | 6.7 | -2.3 | -2.2 | -1.4 | 0.39 | 0.44 | -0.4 | -0.8 | 6.6 | -2.2 |
| August 2003 | -16.7 | -2.2 | -5.2 | -1.2 | 0.44 | 0.44 | 0.7 | -0.4 | -16.5 | -2.2 |

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 | | | | | | | | | | |
| August 2002 | 36,279 | 58,740 | 46,220 | 37,127 | 35,261 | 58,914 | 45,663 | 36,218 | | |
| September 2002 | 36,732 | 58,668 | 45,264 | 35,771 | 35,787 | 58,808 | 44,932 | 35,056 | | |
| October 2002 | 38,137 | 58,850 | 44,804 | 37,678 | 35,834 | 59,130 | 44,532 | 35,434 | | |
| 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 | 35,385 | 59,084 | 37,671 | 34,541 | 34,287 | 59,395 | 37,855 | 33,692 | | |
| July 2003 | 34,096 | 58,402 | 37,590 | 34,015 | 34,578 | 59,114 | 37,409 | 34,132 | | |
| August 2003 | 34,487 | 58,171 | 37,149 | 34,046 | 34,020 | 58,390 | 36,811 | 33,422 | | |
| 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 | |
| August 2002 | 1.2 | 0.6 | 0.9 | 0.3 | 1.67 | 1.65 | 2.1 | -0.2 | 5.5 | 0.3 |
| September 2002 | 1.5 | 0.5 | -0.2 | 0.4 | 1.64 | 1.65 | -1.6 | -0.5 | -3.2 | 0.1 |
| October 2002 | 0.1 | 0.3 | 0.5 | 0.4 | 1.65 | 1.65 | -0.9 | -0.9 | 1.1 | -0.1 |
| November 2002 | -1.6 | 0.2 | 0.5 | 0.4 | 1.68 | 1.66 | -0.8 | -1.3 | -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 | -0.7 | 0.2 | 0.1 | 1.68 | 1.70 | -0.3 | -2.2 | 0.1 | -0.7 |
| April 2003 | -2.3 | -0.7 | 0.9 | -0.1 | 1.73 | 1.71 | -2.3 | -2.2 | -4.5 | -0.6 |
| May 2003 | -1.6 | -0.7 | -0.7 | -0.2 | 1.75 | 1.72 | -3.8 | -2.0 | -3.3 | -0.4 |
| June 2003 | -0.2 | -0.6 | -0.9 | -0.3 | 1.73 | 1.72 | -1.5 | -1.7 | 2.6 | -0.2 |
| July 2003 | 0.8 | -0.4 | -0.5 | -0.4 | 1.71 | 1.72 | -1.2 | -1.3 | 1.3 | 0.0 |
| August 2003 | -1.6 | -0.3 | -1.2 | -0.4 | 1.72 | 1.72 | -1.6 | -1.0 | -2.1 | 0.1 |

Table 4
Shipments by major group and selected industries

| | NAICS Code | Unadjusted | | | | | |
|---|------------|-----------------|---------------|--------------------|----------------|--------------------|----------------|
| | | Current periods | | | | | |
| | | August 2003 | July 2003 | June 2003 | May 2003 | | |
| | | \$ millions | | | | | |
| Food manufacturing | 311 | 5,352 | 5,354 | 5,446 | 5,546 | | |
| Beverage and tobacco product manufacturing | 312 | 1,267 | 1,323 | 1,278 | 1,209 | | |
| Textile mills | 313 | 239 | 194 | 254 | 264 | | |
| Textile product mills | 314 | 182 | 188 | 202 | 213 | | |
| Clothing manufacturing | 315 | 562 | 492 | 432 | 480 | | |
| Leather and allied product manufacturing | 316 | 81 | 46 | 42 | 48 | | |
| Wood product manufacturing | 321 | 2,495 | 2,383 | 2,393 | 2,409 | | |
| Paper manufacturing | 322 | 2,643 | 2,617 | 2,567 | 2,678 | | |
| Printing and related support activities | 323 | 786 | 779 | 803 | 857 | | |
| Petroleum and coal products manufacturing | 324 | 3,127 | 2,931 | 2,743 | 2,778 | | |
| Chemical manufacturing | 325 | 3,016 | 3,159 | 3,462 | 3,769 | | |
| Plastics and rubber products manufacturing | 326 | 1,937 | 1,882 | 2,020 | 2,092 | | |
| Non-metallic mineral product manufacturing | 327 | 1,168 | 1,189 | 1,169 | 1,131 | | |
| Primary metal manufacturing | 331 | 2,453 | 2,512 | 2,629 | 2,751 | | |
| Fabricated metal product manufacturing | 332 | 2,373 | 2,299 | 2,426 | 2,369 | | |
| Machinery manufacturing | 333 | 1,711 | 1,851 | 1,882 | 1,994 | | |
| Computer and electronic product manufacturing | 334 | 1,419 | 1,301 | 1,671 | 1,433 | | |
| Electrical equipment, appliance and component manufacturing | 335 | 702 | 698 | 785 | 768 | | |
| Transportation equipment manufacturing | 336 | 8,373 | 6,764 | 10,069 | 10,421 | | |
| Motor vehicle manufacturing | 3361 | 4,370 | 3,456 | 5,702 | 6,010 | | |
| Motor vehicle body and trailer manufacturing | 3362 | 182 | 214 | 233 | 263 | | |
| Motor vehicle parts manufacturing | 3363 | 2,561 | 1,861 | 2,701 | 2,723 | | |
| Aerospace product and parts manufacturing | 3364 | 859 | 851 | 957 | 958 | | |
| Railroad rolling stock manufacturing | 3365 | 151 | 149 | 259 | 249 | | |
| Ship and boat building | 3366 | 68 | 75 | 84 | 115 | | |
| Furniture and related product manufacturing | 337 | 1,068 | 995 | 1,058 | 1,052 | | |
| Miscellaneous manufacturing | 339 | 462 | 456 | 458 | 455 | | |
| Non-durable goods industries | | 18,630 | 18,473 | 18,816 | 19,453 | | |
| Durable goods industries | | 22,787 | 20,940 | 24,973 | 25,261 | | |
| Manufacturing | | 41,417 | 39,413 | 43,789 | 44,714 | | |
| | | Previous year | | Year-to-date | | Annual | |
| | | August 2002 | July 2002 | % Change from 2002 | 2003 | % Change from 2001 | 2002 |
| | | \$ millions | | | | | |
| Food manufacturing | 311 | 5,475 | 5,391 | 1.2 | 41,685 | 1.1 | 62,911 |
| Beverage and tobacco product manufacturing | 312 | 1,212 | 1,277 | 2.4 | 8,972 | 3.7 | 13,304 |
| Textile mills | 313 | 271 | 219 | -10.5 | 1,942 | -3.7 | 3,210 |
| Textile product mills | 314 | 224 | 203 | -9.3 | 1,533 | 0.5 | 2,520 |
| Clothing manufacturing | 315 | 640 | 539 | -8.4 | 4,033 | -3.0 | 6,785 |
| Leather and allied product manufacturing | 316 | 96 | 52 | -14.7 | 401 | -9.9 | 777 |
| Wood product manufacturing | 321 | 2,553 | 2,399 | -6.9 | 18,697 | 7.2 | 29,498 |
| Paper manufacturing | 322 | 2,857 | 2,759 | -1.3 | 21,211 | -4.4 | 32,726 |
| Printing and related support activities | 323 | 829 | 784 | -0.4 | 6,553 | -4.1 | 10,061 |
| Petroleum and coal products manufacturing | 324 | 3,073 | 2,822 | 21.0 | 24,314 | 1.1 | 32,350 |
| Chemical manufacturing | 325 | 3,209 | 3,058 | 7.7 | 26,799 | 4.0 | 37,769 |
| Plastics and rubber products manufacturing | 326 | 2,048 | 1,869 | 0.9 | 15,608 | 6.7 | 23,002 |
| Non-metallic mineral product manufacturing | 327 | 1,174 | 1,109 | 5.7 | 7,846 | 9.7 | 11,586 |
| Primary metal manufacturing | 331 | 2,657 | 2,562 | 2.5 | 21,806 | 8.8 | 32,216 |
| Fabricated metal product manufacturing | 332 | 2,450 | 2,184 | 0.8 | 18,299 | 2.8 | 27,510 |
| Machinery manufacturing | 333 | 1,900 | 1,795 | -5.4 | 15,032 | 1.3 | 24,113 |
| Computer and electronic product manufacturing | 334 | 1,662 | 1,677 | -17.1 | 11,695 | -16.5 | 21,255 |
| Electrical equipment, appliance and component manufacturing | 335 | 752 | 727 | -4.9 | 5,921 | -7.6 | 9,335 |
| Transportation equipment manufacturing | 336 | 10,469 | 7,012 | -4.3 | 76,612 | 4.6 | 119,746 |
| Motor vehicle manufacturing | 3361 | 5,825 | 3,527 | -4.2 | 42,381 | 5.7 | 65,797 |
| Motor vehicle body and trailer manufacturing | 3362 | 193 | 200 | 1.5 | 1,831 | 8.5 | 2,704 |
| Motor vehicle parts manufacturing | 3363 | 3,007 | 2,019 | -5.1 | 20,844 | 10.2 | 32,741 |
| Aerospace product and parts manufacturing | 3364 | 980 | 825 | -4.1 | 7,743 | -15.0 | 12,472 |
| Railroad rolling stock manufacturing | 3365 | 237 | 189 | 0.1 | 1,855 | 5.4 | 2,878 |
| Ship and boat building | 3366 | 76 | 101 | -29.1 | 696 | 20.6 | 1,242 |
| Furniture and related product manufacturing | 337 | 1,104 | 987 | 1.2 | 8,256 | 2.4 | 12,303 |
| Miscellaneous manufacturing | 339 | 454 | 462 | 0.3 | 3,573 | 8.5 | 5,527 |
| Non-durable goods industries | | 19,295 | 18,433 | 4.4 | 149,020 | 1.1 | 218,631 |
| Durable goods industries | | 25,816 | 21,454 | -3.8 | 191,771 | 2.5 | 299,874 |
| Manufacturing | | 45,110 | 39,887 | -0.4 | 340,791 | 1.9 | 518,505 |

Table 4

Shipments by major group and selected industries - concluded

| | NAICS Code | Change from July | Seasonally adjusted | | | | | | |
|---|------------|------------------|----------------------------|---------------|----------------------------------|---------------|-------------|-------------|-------------|
| | | | Current periods | | | | | | |
| | | | August 2003 | July 2003 | June 2003 | May 2003 | | | |
| | | | \$ millions | | | | | | |
| Food manufacturing | 311 | 22 | 5,207 | 5,185 | 5,245 | 5,282 | | | |
| Beverage and tobacco product manufacturing | 312 | 12 | 1,155 | 1,144 | 1,114 | 1,134 | | | |
| Textile mills | 313 | 0 | 234 | 235 | 238 | 244 | | | |
| Textile product mills | 314 | -15 | 181 | 196 | 191 | 194 | | | |
| Clothing manufacturing | 315 | -23 | 488 | 511 | 494 | 516 | | | |
| Leather and allied product manufacturing | 316 | 1 | 56 | 55 | 53 | 56 | | | |
| Wood product manufacturing | 321 | 84 | 2,421 | 2,337 | 2,248 | 2,207 | | | |
| Paper manufacturing | 322 | -32 | 2,609 | 2,641 | 2,612 | 2,682 | | | |
| Printing and related support activities | 323 | -32 | 802 | 834 | 831 | 842 | | | |
| Petroleum and coal products manufacturing | 324 | 73 | 2,949 | 2,876 | 2,824 | 2,835 | | | |
| Chemical manufacturing | 325 | -172 | 3,097 | 3,268 | 3,305 | 3,307 | | | |
| Plastics and rubber products manufacturing | 326 | -68 | 1,879 | 1,947 | 1,885 | 1,905 | | | |
| Non-metallic mineral product manufacturing | 327 | -41 | 993 | 1,034 | 1,016 | 988 | | | |
| Primary metal manufacturing | 331 | -129 | 2,550 | 2,678 | 2,602 | 2,632 | | | |
| Fabricated metal product manufacturing | 332 | -44 | 2,316 | 2,360 | 2,345 | 2,272 | | | |
| Machinery manufacturing | 333 | -94 | 1,855 | 1,949 | 1,807 | 1,941 | | | |
| Computer and electronic product manufacturing | 334 | 28 | 1,435 | 1,407 | 1,571 | 1,457 | | | |
| Electrical equipment, appliance and component manufacturing | 335 | -6 | 735 | 741 | 754 | 748 | | | |
| Transportation equipment manufacturing | 336 | -1,500 | 8,483 | 9,983 | 9,447 | 9,575 | | | |
| Motor vehicle manufacturing | 3361 | -1,333 | 4,435 | 5,767 | 5,219 | 5,424 | | | |
| Motor vehicle body and trailer manufacturing | 3362 | -16 | 217 | 233 | 222 | 229 | | | |
| Motor vehicle parts manufacturing | 3363 | -55 | 2,474 | 2,529 | 2,557 | 2,511 | | | |
| Aerospace product and parts manufacturing | 3364 | -98 | 924 | 1,021 | 1,001 | 982 | | | |
| Railroad rolling stock manufacturing | 3365 | -16 | 177 | 194 | 238 | 241 | | | |
| Ship and boat building | 3366 | -7 | 76 | 83 | 78 | 84 | | | |
| Furniture and related product manufacturing | 337 | -1 | 1,033 | 1,033 | 1,035 | 1,028 | | | |
| Miscellaneous manufacturing | 339 | -10 | 450 | 460 | 448 | 439 | | | |
| Non-durable goods industries | | -211 | 18,169 | 18,380 | 18,297 | 18,482 | | | |
| Durable goods industries | | -1,735 | 22,759 | 24,494 | 23,766 | 23,803 | | | |
| Manufacturing | | -1,946 | 40,928 | 42,874 | 42,063 | 42,285 | | | |
| | | | Change from previous month | | Trend change from previous month | | | | |
| | | | August 2003 | July 2003 | June 2003 | August 2003 | July 2003 | June 2003 | May 2003 |
| | | | percentage | | | | | | |
| Food manufacturing | 311 | 0.4 | -1.2 | -0.7 | -0.3 | -0.5 | -0.5 | -0.5 | -0.5 |
| Beverage and tobacco product manufacturing | 312 | 1.0 | 2.7 | -1.8 | 0.4 | 0.4 | 0.3 | 0.2 | 0.2 |
| Textile mills | 313 | -0.2 | -1.3 | -2.7 | -0.7 | -1.0 | -1.1 | -1.1 | -1.1 |
| Textile product mills | 314 | -7.6 | 2.7 | -1.7 | 0.1 | 0.1 | -0.1 | -0.4 | -0.4 |
| Clothing manufacturing | 315 | -4.5 | 3.5 | -4.3 | -0.9 | -1.2 | -1.6 | -1.8 | -1.8 |
| Leather and allied product manufacturing | 316 | 2.7 | 3.8 | -4.9 | 0.4 | 0.2 | -0.2 | -0.8 | -0.8 |
| Wood product manufacturing | 321 | 3.6 | 3.9 | 1.9 | 1.2 | 1.0 | 0.5 | -0.2 | -0.2 |
| Paper manufacturing | 322 | -1.2 | 1.1 | -2.6 | -0.6 | -0.7 | -0.7 | -0.7 | -0.7 |
| Printing and related support activities | 323 | -3.8 | 0.3 | -1.3 | -0.8 | -0.8 | -0.8 | -0.7 | -0.7 |
| Petroleum and coal products manufacturing | 324 | 2.5 | 1.8 | -0.4 | -0.2 | -0.7 | -1.1 | -1.4 | -1.4 |
| Chemical manufacturing | 325 | -5.3 | -1.1 | -0.1 | -0.4 | -0.6 | -0.7 | -0.8 | -0.8 |
| Plastics and rubber products manufacturing | 326 | -3.5 | 3.3 | -1.1 | -0.4 | -0.5 | -0.6 | -0.6 | -0.6 |
| Non-metallic mineral product manufacturing | 327 | -4.0 | 1.8 | 2.8 | -0.1 | -0.2 | -0.3 | -0.3 | -0.3 |
| Primary metal manufacturing | 331 | -4.8 | 2.9 | -1.2 | -1.0 | -1.3 | -1.5 | -1.6 | -1.6 |
| Fabricated metal product manufacturing | 332 | -1.9 | 0.6 | 3.2 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 |
| Machinery manufacturing | 333 | -4.8 | 7.8 | -6.9 | -0.4 | -0.3 | -0.2 | -0.3 | -0.3 |
| Computer and electronic product manufacturing | 334 | 2.0 | -10.4 | 7.8 | -0.2 | -0.7 | -1.2 | -1.7 | -1.7 |
| Electrical equipment, appliance and component manufacturing | 335 | -0.8 | -1.7 | 0.7 | -0.3 | -0.3 | -0.3 | -0.3 | -0.3 |
| Transportation equipment manufacturing | 336 | -15.0 | 5.7 | -1.3 | -1.9 | -2.1 | -1.9 | -1.6 | -1.6 |
| Motor vehicle manufacturing | 3361 | -23.1 | 10.5 | -3.8 | -3.0 | -3.0 | -2.5 | -1.8 | -1.8 |
| Motor vehicle body and trailer manufacturing | 3362 | -7.0 | 5.0 | -3.1 | -0.5 | -0.5 | -0.6 | -0.6 | -0.6 |
| Motor vehicle parts manufacturing | 3363 | -2.2 | -1.1 | 1.8 | -0.8 | -1.0 | -1.2 | -1.4 | -1.4 |
| Aerospace product and parts manufacturing | 3364 | -9.6 | 2.0 | 1.9 | -0.7 | -0.5 | -0.4 | -0.6 | -0.6 |
| Railroad rolling stock manufacturing | 3365 | -8.3 | -18.6 | -1.6 | -4.7 | -4.9 | -4.4 | -3.4 | -3.4 |
| Ship and boat building | 3366 | -7.9 | 6.6 | -7.2 | -0.8 | -0.4 | 0.3 | 0.9 | 0.9 |
| Furniture and related product manufacturing | 337 | -0.1 | -0.1 | 0.7 | 0.0 | 0.0 | -0.1 | -0.2 | -0.2 |
| Miscellaneous manufacturing | 339 | -2.1 | 2.7 | 2.1 | -0.1 | -0.2 | -0.4 | -0.6 | -0.6 |
| Non-durable goods industries | | -1.1 | 0.5 | -1.0 | -0.3 | -0.5 | -0.7 | -0.7 | -0.7 |
| Durable goods industries | | -7.1 | 3.1 | -0.2 | -0.8 | -1.0 | -1.0 | -1.0 | -1.0 |
| Manufacturing | | -4.5 | 1.9 | -0.5 | -0.6 | -0.8 | -0.9 | -0.9 | -0.9 |

Table 5
Inventories by major group and selected industries

| | NAICS Code | Unadjusted | | | | | |
|---|------------|-----------------|---------------|--------------------|---------------|--------------------|---------------|
| | | Current periods | | | | | |
| | | August 2003 | July 2003 | June 2003 | May 2003 | | |
| | | \$ millions | | | | | |
| Food manufacturing | 311 | 4,850 | 4,810 | 4,795 | 4,767 | | |
| Beverage and tobacco product manufacturing | 312 | 1,753 | 1,769 | 1,779 | 1,815 | | |
| Textile mills | 313 | 446 | 459 | 454 | 455 | | |
| Textile product mills | 314 | 302 | 310 | 314 | 321 | | |
| Clothing manufacturing | 315 | 1,276 | 1,313 | 1,330 | 1,245 | | |
| Leather and allied product manufacturing | 316 | 145 | 154 | 150 | 137 | | |
| Wood product manufacturing | 321 | 4,048 | 4,201 | 4,279 | 4,579 | | |
| Paper manufacturing | 322 | 3,524 | 3,597 | 3,620 | 3,632 | | |
| Printing and related support activities | 323 | 719 | 715 | 701 | 705 | | |
| Petroleum and coal products manufacturing | 324 | 1,726 | 1,785 | 1,679 | 1,606 | | |
| Chemical manufacturing | 325 | 5,890 | 5,730 | 5,847 | 5,990 | | |
| Plastics and rubber products manufacturing | 326 | 2,101 | 2,118 | 2,162 | 2,248 | | |
| Non-metallic mineral product manufacturing | 327 | 1,204 | 1,235 | 1,230 | 1,246 | | |
| Primary metal manufacturing | 331 | 4,666 | 4,722 | 4,745 | 4,861 | | |
| Fabricated metal product manufacturing | 332 | 3,528 | 3,569 | 3,620 | 3,676 | | |
| Machinery manufacturing | 333 | 4,325 | 4,341 | 4,486 | 4,616 | | |
| Computer and electronic product manufacturing | 334 | 4,118 | 4,082 | 4,058 | 4,297 | | |
| Electrical equipment, appliance and component manufacturing | 335 | 1,329 | 1,324 | 1,348 | 1,395 | | |
| Transportation equipment manufacturing | 336 | 12,774 | 12,795 | 13,197 | 13,537 | | |
| Motor vehicle manufacturing | 3361 | 1,210 | 1,229 | 1,327 | 1,471 | | |
| Motor vehicle body and trailer manufacturing | 3362 | 442 | 443 | 469 | 466 | | |
| Motor vehicle parts manufacturing | 3363 | 1,843 | 1,928 | 1,911 | 1,949 | | |
| Aerospace product and parts manufacturing | 3364 | 7,879 | 7,783 | 7,999 | 8,121 | | |
| Railroad rolling stock manufacturing | 3365 | 1,098 | 1,135 | 1,168 | 1,198 | | |
| Ship and boat building | 3366 | 113 | 111 | 112 | 118 | | |
| Furniture and related product manufacturing | 337 | 1,524 | 1,534 | 1,520 | 1,515 | | |
| Miscellaneous manufacturing | 339 | 977 | 997 | 1,009 | 1,024 | | |
| Non-durable goods industries | | 21,455 | 21,446 | 21,500 | 21,675 | | |
| Durable goods industries | | 39,769 | 40,112 | 40,822 | 41,991 | | |
| Manufacturing | | 61,224 | 61,558 | 62,322 | 63,666 | | |
| | | Previous year | | Year-to-date | | Average per month | |
| | | August 2002 | July 2002 | % Change from 2002 | Average 2003 | % Change from 2001 | 2002 |
| | | \$ millions | | | | | |
| Food manufacturing | 311 | 4,803 | 4,722 | 1.6 | 4,830 | 3.4 | 4,832 |
| Beverage and tobacco product manufacturing | 312 | 1,700 | 1,700 | 3.2 | 1,773 | 5.0 | 1,717 |
| Textile mills | 313 | 475 | 469 | -8.9 | 457 | -9.3 | 486 |
| Textile product mills | 314 | 333 | 344 | -3.3 | 315 | -13.1 | 324 |
| Clothing manufacturing | 315 | 1,209 | 1,216 | 4.0 | 1,235 | -12.5 | 1,174 |
| Leather and allied product manufacturing | 316 | 151 | 160 | -4.3 | 135 | -8.9 | 137 |
| Wood product manufacturing | 321 | 4,122 | 4,085 | 2.8 | 4,686 | -6.3 | 4,449 |
| Paper manufacturing | 322 | 3,491 | 3,520 | 0.2 | 3,590 | -7.0 | 3,548 |
| Printing and related support activities | 323 | 707 | 684 | -1.1 | 697 | -5.7 | 702 |
| Petroleum and coal products manufacturing | 324 | 1,695 | 1,652 | 2.4 | 1,686 | -10.6 | 1,614 |
| Chemical manufacturing | 325 | 5,309 | 5,182 | 13.6 | 5,904 | 4.0 | 5,277 |
| Plastics and rubber products manufacturing | 326 | 2,043 | 2,012 | 7.6 | 2,174 | 0.8 | 2,039 |
| Non-metallic mineral product manufacturing | 327 | 1,207 | 1,230 | 0.3 | 1,230 | 2.0 | 1,206 |
| Primary metal manufacturing | 331 | 4,674 | 4,525 | 7.2 | 4,841 | 0.4 | 4,657 |
| Fabricated metal product manufacturing | 332 | 3,548 | 3,581 | 3.5 | 3,624 | 2.1 | 3,492 |
| Machinery manufacturing | 333 | 4,584 | 4,586 | -2.9 | 4,488 | 1.2 | 4,609 |
| Computer and electronic product manufacturing | 334 | 4,500 | 4,499 | -11.2 | 4,243 | -22.5 | 4,654 |
| Electrical equipment, appliance and component manufacturing | 335 | 1,381 | 1,400 | -2.5 | 1,362 | -16.3 | 1,384 |
| Transportation equipment manufacturing | 336 | 13,736 | 13,118 | -0.3 | 13,227 | -1.3 | 13,441 |
| Motor vehicle manufacturing | 3361 | 1,729 | 1,733 | -14.9 | 1,459 | 2.9 | 1,730 |
| Motor vehicle body and trailer manufacturing | 3362 | 411 | 405 | 13.8 | 471 | -6.3 | 417 |
| Motor vehicle parts manufacturing | 3363 | 1,762 | 1,795 | 11.3 | 1,930 | 3.9 | 1,762 |
| Aerospace product and parts manufacturing | 3364 | 8,120 | 7,532 | 1.6 | 7,849 | 0.3 | 7,817 |
| Railroad rolling stock manufacturing | 3365 | 1,374 | 1,324 | -7.4 | 1,199 | -14.0 | 1,338 |
| Ship and boat building | 3366 | 112 | 109 | -19.0 | 122 | -35.7 | 145 |
| Furniture and related product manufacturing | 337 | 1,472 | 1,434 | 8.4 | 1,522 | 1.1 | 1,427 |
| Miscellaneous manufacturing | 339 | 1,092 | 1,084 | -0.3 | 1,038 | 3.3 | 1,059 |
| Non-durable goods industries | | 20,706 | 20,445 | 4.7 | 21,561 | -0.7 | 20,676 |
| Durable goods industries | | 41,524 | 40,760 | 0.0 | 41,496 | -4.7 | 41,553 |
| Manufacturing | | 62,231 | 61,205 | 1.6 | 63,057 | -3.4 | 62,229 |

Table 5
Inventories by major group and selected industries - concluded

| | NAICS Code | Change from July | Seasonally adjusted | | | | | | |
|---|------------|------------------|----------------------------|---------------|----------------------------------|---------------|-------------|-------------|----------|
| | | | Current periods | | | | | | |
| | | | August 2003 | July 2003 | June 2003 | May 2003 | | | |
| | | | \$ millions | | | | | | |
| Food manufacturing | 311 | -28 | 4,840 | 4,868 | 4,847 | 4,838 | | | |
| Beverage and tobacco product manufacturing | 312 | 15 | 1,802 | 1,787 | 1,737 | 1,752 | | | |
| Textile mills | 313 | -15 | 452 | 467 | 459 | 452 | | | |
| Textile product mills | 314 | -8 | 303 | 311 | 313 | 319 | | | |
| Clothing manufacturing | 315 | 6 | 1,233 | 1,227 | 1,223 | 1,209 | | | |
| Leather and allied product manufacturing | 316 | -1 | 131 | 132 | 133 | 130 | | | |
| Wood product manufacturing | 321 | -150 | 4,395 | 4,545 | 4,561 | 4,654 | | | |
| Paper manufacturing | 322 | -43 | 3,551 | 3,594 | 3,631 | 3,561 | | | |
| Printing and related support activities | 323 | -19 | 701 | 720 | 721 | 713 | | | |
| Petroleum and coal products manufacturing | 324 | -55 | 1,680 | 1,735 | 1,653 | 1,603 | | | |
| Chemical manufacturing | 325 | 61 | 5,918 | 5,857 | 6,001 | 6,003 | | | |
| Plastics and rubber products manufacturing | 326 | -3 | 2,130 | 2,133 | 2,156 | 2,205 | | | |
| Non-metallic mineral product manufacturing | 327 | -8 | 1,208 | 1,215 | 1,207 | 1,212 | | | |
| Primary metal manufacturing | 331 | -74 | 4,650 | 4,723 | 4,815 | 4,954 | | | |
| Fabricated metal product manufacturing | 332 | -37 | 3,538 | 3,575 | 3,595 | 3,645 | | | |
| Machinery manufacturing | 333 | -56 | 4,287 | 4,343 | 4,533 | 4,616 | | | |
| Computer and electronic product manufacturing | 334 | -43 | 4,108 | 4,151 | 4,143 | 4,265 | | | |
| Electrical equipment, appliance and component manufacturing | 335 | 14 | 1,333 | 1,318 | 1,323 | 1,362 | | | |
| Transportation equipment manufacturing | 336 | -415 | 12,711 | 13,126 | 13,137 | 13,340 | | | |
| Motor vehicle manufacturing | 3361 | -90 | 1,202 | 1,292 | 1,386 | 1,443 | | | |
| Motor vehicle body and trailer manufacturing | 3362 | -2 | 457 | 459 | 468 | 457 | | | |
| Motor vehicle parts manufacturing | 3363 | -77 | 1,866 | 1,943 | 1,921 | 1,952 | | | |
| Aerospace product and parts manufacturing | 3364 | -223 | 7,787 | 8,010 | 7,889 | 7,969 | | | |
| Railroad rolling stock manufacturing | 3365 | -36 | 1,098 | 1,135 | 1,168 | 1,198 | | | |
| Ship and boat building | 3366 | -1 | 119 | 120 | 120 | 123 | | | |
| Furniture and related product manufacturing | 337 | -20 | 1,514 | 1,533 | 1,517 | 1,513 | | | |
| Miscellaneous manufacturing | 339 | -15 | 974 | 989 | 996 | 1,012 | | | |
| Non-durable goods industries | | -96 | 21,508 | 21,604 | 21,652 | 21,576 | | | |
| Durable goods industries | | -796 | 39,950 | 40,746 | 41,050 | 41,782 | | | |
| Manufacturing | | -892 | 61,458 | 62,349 | 62,702 | 63,358 | | | |
| | | | Change from previous month | | Trend change from previous month | | | | |
| | | | August 2003 | July 2003 | June 2003 | August 2003 | July 2003 | June 2003 | May 2003 |
| | | | percentage | | | | | | |
| Food manufacturing | 311 | -0.6 | 0.4 | 0.2 | -0.2 | -0.2 | -0.2 | -0.3 | |
| Beverage and tobacco product manufacturing | 312 | 0.9 | 2.8 | -0.8 | 0.5 | 0.6 | 0.6 | 0.5 | |
| Textile mills | 313 | -3.2 | 1.8 | 1.5 | 0.0 | 0.0 | 0.1 | 0.1 | |
| Textile product mills | 314 | -2.7 | -0.5 | -2.0 | -1.0 | -0.9 | -0.7 | -0.4 | |
| Clothing manufacturing | 315 | 0.5 | 0.3 | 1.2 | 0.1 | 0.2 | 0.3 | 0.4 | |
| Leather and allied product manufacturing | 316 | -0.8 | -0.9 | 2.6 | -0.1 | 0.0 | 0.0 | 0.0 | |
| Wood product manufacturing | 321 | -3.3 | -0.4 | -2.0 | -0.9 | -0.9 | -0.6 | -0.3 | |
| Paper manufacturing | 322 | -1.2 | -1.0 | 2.0 | -0.1 | 0.0 | 0.1 | 0.2 | |
| Printing and related support activities | 323 | -2.7 | -0.1 | 1.2 | 0.3 | 0.5 | 0.6 | 0.8 | |
| Petroleum and coal products manufacturing | 324 | -3.2 | 4.9 | 3.2 | 0.0 | 0.2 | 0.5 | 0.7 | |
| Chemical manufacturing | 325 | 1.0 | -2.4 | 0.0 | -0.1 | 0.1 | 0.3 | 0.5 | |
| Plastics and rubber products manufacturing | 326 | -0.1 | -1.1 | -2.3 | -0.2 | -0.2 | -0.2 | -0.1 | |
| Non-metallic mineral product manufacturing | 327 | -0.6 | 0.7 | -0.4 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Primary metal manufacturing | 331 | -1.6 | -1.9 | -2.8 | -1.0 | -1.1 | -1.0 | -0.8 | |
| Fabricated metal product manufacturing | 332 | -1.0 | -0.6 | -1.4 | -0.5 | -0.5 | -0.4 | -0.1 | |
| Machinery manufacturing | 333 | -1.3 | -4.2 | -1.8 | -0.6 | -0.8 | -0.8 | -0.7 | |
| Computer and electronic product manufacturing | 334 | -1.0 | 0.2 | -2.9 | -0.6 | -0.7 | -0.8 | -0.9 | |
| Electrical equipment, appliance and component manufacturing | 335 | 1.1 | -0.3 | -2.9 | -0.5 | -0.6 | -0.5 | -0.4 | |
| Transportation equipment manufacturing | 336 | -3.2 | -0.1 | -1.5 | -0.5 | -0.5 | -0.6 | -0.6 | |
| Motor vehicle manufacturing | 3361 | -7.0 | -6.7 | -4.0 | -2.5 | -3.1 | -3.4 | -3.6 | |
| Motor vehicle body and trailer manufacturing | 3362 | -0.4 | -1.9 | 2.3 | -0.6 | -0.5 | -0.4 | -0.2 | |
| Motor vehicle parts manufacturing | 3363 | -4.0 | 1.1 | -1.5 | -0.3 | -0.2 | -0.1 | 0.1 | |
| Aerospace product and parts manufacturing | 3364 | -2.8 | 1.5 | -1.0 | 0.0 | 0.1 | 0.1 | 0.2 | |
| Railroad rolling stock manufacturing | 3365 | -3.2 | -2.8 | -2.5 | -1.2 | -1.7 | -2.1 | -2.6 | |
| Ship and boat building | 3366 | -0.7 | -0.3 | -2.4 | -0.8 | -1.0 | -1.1 | -1.2 | |
| Furniture and related product manufacturing | 337 | -1.3 | 1.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Miscellaneous manufacturing | 339 | -1.5 | -0.7 | -1.5 | -1.1 | -1.4 | -1.6 | -1.7 | |
| Non-durable goods industries | | -0.4 | -0.2 | 0.4 | -0.1 | 0.0 | 0.1 | 0.2 | |
| Durable goods industries | | -2.0 | -0.7 | -1.8 | -0.6 | -0.6 | -0.6 | -0.5 | |
| Manufacturing | | -1.4 | -0.6 | -1.0 | -0.4 | -0.4 | -0.4 | -0.3 | |

Table 6
Unfilled orders by selected major group and industries

| | NAICS Code | Unadjusted | | | | | |
|---|------------|-----------------|---------------|--------------------|---------------|--------------------|---------------|
| | | Current periods | | | | | |
| | | August 2003 | July 2003 | June 2003 | May 2003 | | |
| \$ millions | | | | | | | |
| Textile mills | 313 | 218 | 209 | 213 | 220 | | |
| Textile product mills | 314 | 50 | 60 | 55 | 62 | | |
| Clothing manufacturing | 315 | 336 | 338 | 352 | 350 | | |
| Leather and allied product manufacturing | 316 | 34 | 36 | 41 | 37 | | |
| Plastics and rubber products manufacturing | 326 | 1,207 | 1,030 | 1,020 | 1,198 | | |
| Primary metal manufacturing | 331 | 1,656 | 1,627 | 1,629 | 1,690 | | |
| Fabricated metal product manufacturing | 332 | 2,784 | 2,741 | 2,705 | 2,705 | | |
| Machinery manufacturing | 333 | 6,021 | 6,089 | 5,995 | 6,237 | | |
| Computer and electronic product manufacturing | 334 | 3,632 | 3,607 | 3,608 | 3,925 | | |
| Electrical equipment, appliance and component manufacturing | 335 | 970 | 957 | 925 | 1,005 | | |
| Transportation equipment manufacturing | 336 | 18,628 | 19,267 | 19,620 | 19,752 | | |
| Motor vehicle manufacturing | 3361 | 807 | 782 | 766 | 759 | | |
| Motor vehicle body and trailer manufacturing | 3362 | 541 | 565 | 585 | 620 | | |
| Motor vehicle parts manufacturing | 3363 | 794 | 825 | 817 | 822 | | |
| Aerospace product and parts manufacturing | 3364 | 11,556 | 11,953 | 12,164 | 12,640 | | |
| Ship and boat building | 3366 | 44 | 49 | 52 | 53 | | |
| Miscellaneous manufacturing | 339 | 207 | 171 | 170 | 167 | | |
| Non-durable goods industries | | 2,990 | 2,868 | 2,816 | 2,869 | | |
| Durable goods industries | | 35,760 | 36,330 | 36,438 | 37,228 | | |
| Manufacturing | | 38,751 | 39,197 | 39,254 | 40,096 | | |
| | | Previous year | | Year-to-date | | Average per month | |
| | | August 2002 | July 2002 | % Change from 2002 | Average 2003 | % Change from 2001 | 2002 |
| \$ millions | | | | | | | |
| Textile mills | 313 | 277 | 274 | -16.5 | 233 | 9.3 | 276 |
| Textile product mills | 314 | 60 | 51 | 24.7 | 65 | 2.7 | 55 |
| Clothing manufacturing | 315 | 345 | 356 | -4.9 | 329 | -7.0 | 324 |
| Leather and allied product manufacturing | 316 | 34 | 42 | -7.3 | 33 | -18.2 | 31 |
| Plastics and rubber products manufacturing | 326 | 1,300 | 1,188 | 0.7 | 1,204 | 15.6 | 1,254 |
| Primary metal manufacturing | 331 | 1,760 | 1,798 | -6.3 | 1,684 | 25.1 | 1,795 |
| Fabricated metal product manufacturing | 332 | 2,898 | 2,873 | -3.8 | 2,785 | 0.3 | 2,878 |
| Machinery manufacturing | 333 | 6,972 | 6,679 | -5.3 | 6,463 | 4.3 | 6,709 |
| Computer and electronic product manufacturing | 334 | 4,224 | 4,261 | -0.8 | 3,866 | -8.4 | 3,977 |
| Electrical equipment, appliance and component manufacturing | 335 | 1,027 | 973 | 3.4 | 995 | -30.5 | 977 |
| Transportation equipment manufacturing | 336 | 26,416 | 25,607 | -22.3 | 20,098 | -8.7 | 25,566 |
| Motor vehicle manufacturing | 3361 | 1,190 | 1,058 | -19.8 | 827 | 4.2 | 1,052 |
| Motor vehicle body and trailer manufacturing | 3362 | 588 | 588 | 2.1 | 611 | 8.4 | 590 |
| Motor vehicle parts manufacturing | 3363 | 749 | 718 | 26.9 | 841 | 24.2 | 729 |
| Aerospace product and parts manufacturing | 3364 | 17,866 | 17,966 | -30.6 | 12,783 | -12.0 | 17,877 |
| Ship and boat building | 3366 | 15 | 16 | 156.8 | 43 | -37.0 | 18 |
| Miscellaneous manufacturing | 339 | 187 | 171 | -12.9 | 181 | -12.1 | 226 |
| Non-durable goods industries | | 2,969 | 2,823 | 6.2 | 2,955 | 15.3 | 2,867 |
| Durable goods industries | | 45,190 | 44,062 | -14.1 | 37,834 | -5.4 | 43,740 |
| Manufacturing | | 48,159 | 46,885 | -12.9 | 40,789 | -4.3 | 46,606 |

Table 6

Unfilled orders by selected major group and industries - concluded

| | NAICS Code | Change from July | Seasonally adjusted | | | | | | |
|---|------------|------------------|----------------------------|---------------|----------------------------------|---------------|-------------|-------------|----------|
| | | | Current periods | | | | | | |
| | | | August 2003 | July 2003 | June 2003 | May 2003 | | | |
| \$ millions | | | | | | | | | |
| Textile mills | 313 | 5 | 221 | 216 | 216 | 218 | | | |
| Textile product mills | 314 | -13 | 47 | 60 | 57 | 64 | | | |
| Clothing manufacturing | 315 | 19 | 335 | 317 | 320 | 321 | | | |
| Leather and allied product manufacturing | 316 | 5 | 33 | 28 | 29 | 26 | | | |
| Plastics and rubber products manufacturing | 326 | 57 | 1,205 | 1,148 | 1,233 | 1,297 | | | |
| Primary metal manufacturing | 331 | 10 | 1,622 | 1,612 | 1,590 | 1,606 | | | |
| Fabricated metal product manufacturing | 332 | 44 | 2,784 | 2,741 | 2,705 | 2,705 | | | |
| Machinery manufacturing | 333 | -68 | 6,021 | 6,089 | 5,995 | 6,237 | | | |
| Computer and electronic product manufacturing | 334 | 25 | 3,632 | 3,607 | 3,608 | 3,925 | | | |
| Electrical equipment, appliance and component manufacturing | 335 | 13 | 970 | 957 | 925 | 1,005 | | | |
| Transportation equipment manufacturing | 336 | -651 | 18,384 | 19,035 | 19,680 | 19,692 | | | |
| Motor vehicle manufacturing | 3361 | 25 | 807 | 782 | 766 | 759 | | | |
| Motor vehicle body and trailer manufacturing | 3362 | -7 | 576 | 582 | 591 | 601 | | | |
| Motor vehicle parts manufacturing | 3363 | -13 | 804 | 818 | 840 | 847 | | | |
| Aerospace product and parts manufacturing | 3364 | -448 | 11,264 | 11,711 | 12,198 | 12,580 | | | |
| Ship and boat building | 3366 | -2 | 47 | 49 | 49 | 48 | | | |
| Miscellaneous manufacturing | 339 | 14 | 208 | 194 | 197 | 182 | | | |
| Non-durable goods industries | | 2 | 2,987 | 2,984 | 3,021 | 2,957 | | | |
| Durable goods industries | | -589 | 35,436 | 36,025 | 36,440 | 37,100 | | | |
| Manufacturing | | -586 | 38,423 | 39,009 | 39,461 | 40,057 | | | |
| | | | Change from previous month | | Trend change from previous month | | | | |
| | | | August 2003 | July 2003 | June 2003 | August 2003 | July 2003 | June 2003 | May 2003 |
| percentage | | | | | | | | | |
| Textile mills | 313 | 2.2 | 0.0 | -1.0 | -0.3 | -1.2 | -2.2 | -3.2 | |
| Textile product mills | 314 | -20.9 | 6.1 | -11.7 | -3.3 | -3.6 | -3.8 | -3.4 | |
| Clothing manufacturing | 315 | 5.9 | -1.0 | -0.4 | 1.1 | 1.3 | 1.5 | 1.6 | |
| Leather and allied product manufacturing | 316 | 19.0 | -3.6 | 10.8 | 3.1 | 1.6 | -0.2 | -2.0 | |
| Plastics and rubber products manufacturing | 326 | 5.0 | -6.9 | -4.9 | -0.5 | -0.8 | -1.1 | -1.2 | |
| Primary metal manufacturing | 331 | 0.6 | 1.4 | -1.0 | -0.2 | -0.5 | -0.9 | -1.5 | |
| Fabricated metal product manufacturing | 332 | 1.6 | 1.3 | 0.0 | -0.1 | -0.1 | -0.3 | -0.5 | |
| Machinery manufacturing | 333 | -1.1 | 1.6 | -3.9 | -1.1 | -1.3 | -1.5 | -1.5 | |
| Computer and electronic product manufacturing | 334 | 0.7 | 0.0 | -8.1 | -0.6 | -1.4 | -2.1 | -2.5 | |
| Electrical equipment, appliance and component manufacturing | 335 | 1.4 | 3.4 | -7.9 | -0.7 | -0.8 | -0.8 | -0.7 | |
| Transportation equipment manufacturing | 336 | -3.4 | -3.3 | -0.1 | -1.6 | -2.0 | -2.5 | -2.9 | |
| Motor vehicle manufacturing | 3361 | 3.2 | 2.1 | 1.0 | 0.5 | 0.0 | -1.3 | -2.9 | |
| Motor vehicle body and trailer manufacturing | 3362 | -1.2 | -1.5 | -1.6 | -0.4 | -0.5 | -0.6 | -0.6 | |
| Motor vehicle parts manufacturing | 3363 | -1.6 | -2.6 | -0.9 | -1.2 | -1.5 | -1.6 | -1.5 | |
| Aerospace product and parts manufacturing | 3364 | -3.8 | -4.0 | -3.0 | -2.4 | -2.9 | -3.4 | -3.8 | |
| Ship and boat building | 3366 | -3.7 | 0.2 | 1.9 | 2.0 | 3.6 | 5.3 | 7.6 | |
| Miscellaneous manufacturing | 339 | 7.3 | -1.7 | 8.5 | 2.3 | 2.0 | 1.1 | -0.2 | |
| Non-durable goods industries | | 0.1 | -1.2 | 2.2 | 0.3 | 0.2 | 0.0 | -0.1 | |
| Durable goods industries | | -1.6 | -1.1 | -1.8 | -1.1 | -1.4 | -1.8 | -2.1 | |
| Manufacturing | | -1.5 | -1.1 | -1.5 | -1.0 | -1.3 | -1.7 | -2.0 | |

Table 7

New orders by selected major group and industries

| | NAICS Code | Unadjusted | | | | | |
|---|------------|-----------------|---------------|--------------------|----------------|--------------------|----------------|
| | | Current periods | | | | | |
| | | August 2003 | July 2003 | June 2003 | May 2003 | | |
| | | \$ millions | | | | | |
| Textile mills | 313 | 248 | 190 | 247 | 251 | | |
| Textile product mills | 314 | 172 | 193 | 194 | 203 | | |
| Clothing manufacturing | 315 | 559 | 478 | 434 | 472 | | |
| Leather and allied product manufacturing | 316 | 79 | 41 | 46 | 49 | | |
| Plastics and rubber products manufacturing | 326 | 2,115 | 1,892 | 1,842 | 2,000 | | |
| Primary metal manufacturing | 331 | 2,483 | 2,510 | 2,568 | 2,735 | | |
| Fabricated metal product manufacturing | 332 | 2,416 | 2,335 | 2,426 | 2,321 | | |
| Machinery manufacturing | 333 | 1,644 | 1,945 | 1,640 | 1,222 | | |
| Computer and electronic product manufacturing | 334 | 1,444 | 1,300 | 1,355 | 1,462 | | |
| Electrical equipment, appliance and component manufacturing | 335 | 716 | 730 | 706 | 759 | | |
| Transportation equipment manufacturing | 336 | 7,734 | 6,411 | 9,937 | 10,238 | | |
| Motor vehicle manufacturing | 3361 | 4,395 | 3,473 | 5,710 | 5,956 | | |
| Motor vehicle body and trailer manufacturing | 3362 | 158 | 194 | 198 | 263 | | |
| Motor vehicle parts manufacturing | 3363 | 2,530 | 1,870 | 2,696 | 2,728 | | |
| Aerospace product and parts manufacturing | 3364 | 463 | 640 | 480 | 923 | | |
| Ship and boat building | 3366 | 63 | 73 | 82 | 113 | | |
| Miscellaneous manufacturing | 339 | 498 | 458 | 460 | 463 | | |
| Non-durable goods industries | | 18,753 | 18,526 | 18,763 | 19,269 | | |
| Durable goods industries | | 22,217 | 20,832 | 24,183 | 24,226 | | |
| Manufacturing | | 40,970 | 39,357 | 42,946 | 43,495 | | |
| | | Previous year | | Year-to-date | | Annual | |
| | | August 2002 | July 2002 | % Change from 2002 | 2003 | % Change from 2001 | 2002 |
| | | \$ millions | | | | | |
| Textile mills | 313 | 274 | 214 | -14.9 | 1,899 | -0.8 | 3,253 |
| Textile product mills | 314 | 223 | 202 | -10.2 | 1,523 | 2.0 | 2,527 |
| Clothing manufacturing | 315 | 630 | 543 | -8.2 | 4,093 | -2.2 | 6,769 |
| Leather and allied product manufacturing | 316 | 88 | 49 | -13.1 | 412 | -10.6 | 770 |
| Plastics and rubber products manufacturing | 326 | 2,161 | 1,999 | -0.2 | 15,454 | 6.2 | 23,082 |
| Primary metal manufacturing | 331 | 2,619 | 2,465 | 0.0 | 21,663 | 10.9 | 32,658 |
| Fabricated metal product manufacturing | 332 | 2,494 | 2,186 | -0.3 | 18,299 | 2.6 | 27,584 |
| Machinery manufacturing | 333 | 1,919 | 1,760 | -7.6 | 14,555 | -3.3 | 23,507 |
| Computer and electronic product manufacturing | 334 | 1,627 | 1,802 | -23.5 | 11,230 | -8.9 | 21,693 |
| Electrical equipment, appliance and component manufacturing | 335 | 807 | 745 | -4.9 | 5,888 | 1.6 | 9,275 |
| Transportation equipment manufacturing | 336 | 11,278 | 6,932 | -10.7 | 71,662 | 3.6 | 117,133 |
| Motor vehicle manufacturing | 3361 | 5,957 | 3,544 | -5.2 | 42,201 | 6.4 | 65,879 |
| Motor vehicle body and trailer manufacturing | 3362 | 193 | 187 | -3.1 | 1,797 | 8.7 | 2,741 |
| Motor vehicle parts manufacturing | 3363 | 3,039 | 2,082 | -6.1 | 20,770 | 11.0 | 33,006 |
| Aerospace product and parts manufacturing | 3364 | 881 | 713 | -49.1 | 3,298 | -39.5 | 9,017 |
| Ship and boat building | 3366 | 75 | 101 | -26.9 | 717 | 24.0 | 1,248 |
| Miscellaneous manufacturing | 339 | 470 | 452 | 1.4 | 3,567 | 8.5 | 5,508 |
| Non-durable goods industries | | 19,432 | 18,609 | 4.2 | 149,042 | 1.0 | 218,796 |
| Durable goods industries | | 26,690 | 21,407 | -7.4 | 185,964 | 3.2 | 297,812 |
| Manufacturing | | 46,122 | 40,016 | -2.6 | 335,006 | 2.3 | 516,608 |

Table 7

New orders by selected major group and industries - concluded

| | NAICS Code | Change from July | Seasonally adjusted | | | | | | |
|---|------------|------------------|----------------------------|---------------|----------------------------------|---------------|-------------|-------------|----------|
| | | | Current periods | | | | | | |
| | | | August 2003 | July 2003 | June 2003 | May 2003 | | | |
| | | | \$ millions | | | | | | |
| Textile mills | 313 | 4 | 239 | 235 | 236 | 239 | | | |
| Textile product mills | 314 | -31 | 169 | 200 | 183 | 190 | | | |
| Clothing manufacturing | 315 | -1 | 507 | 508 | 493 | 510 | | | |
| Leather and allied product manufacturing | 316 | 8 | 62 | 54 | 56 | 54 | | | |
| Plastics and rubber products manufacturing | 326 | 74 | 1,935 | 1,862 | 1,821 | 1,894 | | | |
| Primary metal manufacturing | 331 | -142 | 2,560 | 2,701 | 2,585 | 2,611 | | | |
| Fabricated metal product manufacturing | 332 | -36 | 2,360 | 2,396 | 2,345 | 2,224 | | | |
| Machinery manufacturing | 333 | -255 | 1,788 | 2,043 | 1,565 | 1,169 | | | |
| Computer and electronic product manufacturing | 334 | 54 | 1,460 | 1,406 | 1,254 | 1,487 | | | |
| Electrical equipment, appliance and component manufacturing | 335 | -24 | 749 | 773 | 674 | 739 | | | |
| Transportation equipment manufacturing | 336 | -1,506 | 7,832 | 9,338 | 9,436 | 8,936 | | | |
| Motor vehicle manufacturing | 3361 | -1,323 | 4,460 | 5,783 | 5,226 | 5,371 | | | |
| Motor vehicle body and trailer manufacturing | 3362 | -14 | 210 | 224 | 212 | 266 | | | |
| Motor vehicle parts manufacturing | 3363 | -46 | 2,460 | 2,507 | 2,550 | 2,490 | | | |
| Aerospace product and parts manufacturing | 3364 | -59 | 476 | 535 | 619 | 486 | | | |
| Ship and boat building | 3366 | -8 | 74 | 83 | 79 | 77 | | | |
| Miscellaneous manufacturing | 339 | 8 | 464 | 456 | 463 | 456 | | | |
| Non-durable goods industries | | -172 | 18,171 | 18,344 | 18,361 | 18,390 | | | |
| Durable goods industries | | -1,909 | 22,170 | 24,079 | 23,106 | 22,321 | | | |
| Manufacturing | | -2,081 | 40,341 | 42,422 | 41,468 | 40,711 | | | |
| | | | Change from previous month | | Trend change from previous month | | | | |
| | | | August 2003 | July 2003 | June 2003 | August 2003 | July 2003 | June 2003 | May 2003 |
| | | | percentage | | | | | | |
| Textile mills | 313 | 1.8 | -0.4 | -1.6 | 0.1 | 0.0 | -0.1 | -0.3 | |
| Textile product mills | 314 | -15.5 | 8.8 | -3.6 | 0.3 | 0.2 | -0.2 | -0.7 | |
| Clothing manufacturing | 315 | -0.2 | 3.1 | -3.5 | -1.0 | -1.3 | -1.6 | -1.7 | |
| Leather and allied product manufacturing | 316 | 14.4 | -3.3 | 3.5 | 1.2 | 1.1 | 0.8 | -0.2 | |
| Plastics and rubber products manufacturing | 326 | 4.0 | 2.3 | -3.9 | -0.1 | -0.3 | -0.5 | -0.6 | |
| Primary metal manufacturing | 331 | -5.2 | 4.5 | -1.0 | -0.8 | -1.0 | -1.1 | -1.2 | |
| Fabricated metal product manufacturing | 332 | -1.5 | 2.2 | 5.5 | 0.1 | 0.3 | 0.4 | 0.3 | |
| Machinery manufacturing | 333 | -12.5 | 30.5 | 33.8 | 0.3 | 0.3 | -0.2 | -1.5 | |
| Computer and electronic product manufacturing | 334 | 3.9 | 12.1 | -15.7 | 2.1 | 1.3 | 0.0 | -1.4 | |
| Electrical equipment, appliance and component manufacturing | 335 | -3.1 | 14.6 | -8.8 | -0.2 | -0.3 | -0.4 | -0.5 | |
| Transportation equipment manufacturing | 336 | -16.1 | -1.0 | 5.6 | -1.0 | -1.0 | -0.8 | -0.5 | |
| Motor vehicle manufacturing | 3361 | -22.9 | 10.7 | -2.7 | -2.9 | -2.8 | -2.3 | -1.5 | |
| Motor vehicle body and trailer manufacturing | 3362 | -6.4 | 5.4 | -20.2 | -0.3 | -0.4 | -0.6 | -0.6 | |
| Motor vehicle parts manufacturing | 3363 | -1.9 | -1.7 | 2.4 | -0.7 | -0.9 | -1.2 | -1.5 | |
| Aerospace product and parts manufacturing | 3364 | -11.0 | -13.6 | 27.5 | 11.1 | 12.7 | 13.6 | 13.4 | |
| Ship and boat building | 3366 | -10.2 | 5.5 | 2.1 | -1.6 | -1.2 | -0.6 | 0.0 | |
| Miscellaneous manufacturing | 339 | 1.7 | -1.5 | 1.6 | 0.1 | 0.2 | 0.2 | 0.1 | |
| Non-durable goods industries | | -0.9 | -0.1 | -0.2 | -0.3 | -0.5 | -0.6 | -0.7 | |
| Durable goods industries | | -7.9 | 4.2 | 3.5 | -0.2 | -0.3 | -0.4 | -0.6 | |
| Manufacturing | | -4.9 | 2.3 | 1.9 | -0.3 | -0.4 | -0.5 | -0.6 | |

Table 8a
Shipments for selected industries, unadjusted

| | NAICS Code | Current periods | | | |
|---|---------------|-----------------|--------------|--------------|-------------|
| | | August 2003 | July 2003 | June 2003 | May 2003 |
| \$ millions | | | | | |
| Food manufacturing | 311 | | | | |
| Animal food manufacturing | 3111 | 415 | 436 | 408 | 443 |
| Starch and vegetable fat and oil manufacturing | 31122 | 253 | 261 | 238 | 275 |
| Sugar and confectionery product manufacturing | 3113 | 371 | 328 | 327 | 335 |
| Fruit and vegetable preserving and specialty food manufacturing | 3114 | 467 | 456 | 445 | 472 |
| Dairy product manufacturing | 3115 | 954 | 982 | 980 | 974 |
| Meat product manufacturing | 3116 | 1,342 | 1,326 | 1,302 | 1,449 |
| Cookie, cracker and pasta manufacturing | 31182 | 114 | 105 | 110 | 113 |
| Other food manufacturing | 3119 | 505 | 503 | 529 | 530 |
| Beverage and tobacco product manufacturing | 312 | | | | |
| Soft drink and ice manufacturing | 31211 | 384 | 410 | 390 | 381 |
| Breweries | 31212 | 433 | 449 | 414 | 382 |
| Wineries | 31213 | 50 | 50 | 50 | 49 |
| Distilleries | 31214 | 71 | 69 | 70 | 71 |
| Tobacco manufacturing | 3122 | 329 | 346 | 354 | 326 |
| Textile mills | 313 | | | | |
| Fibre, yarn and thread mills | 3131 | 31 | 24 | 33 | 35 |
| Fabric mills | 3132 | 159 | 127 | 167 | 174 |
| Textile and fabric finishing and fabric coating | 3133 | 49 | 42 | 54 | 55 |
| Textile product mills | 314 | | | | |
| Carpet and rug mills | 31411 | 64 | 62 | 73 | 78 |
| Textile bag and canvas mills | 31491 | 27 | 33 | 31 | 30 |
| Clothing manufacturing | 315 | | | | |
| Hosiery and sock mills | 31511 | 39 | 38 | 35 | 41 |
| Other clothing knitting mills | 31519 | 53 | 48 | 41 | 40 |
| Men's and boys' cut and sew clothing manufacturing | 31522 | 186 | 160 | 146 | 164 |
| Women's and girls' cut and sew clothing manufacturing | 31523 | 203 | 173 | 139 | 153 |
| Clothing accessories and other clothing manufacturing | 3159 | 20 | 19 | 20 | 22 |
| Leather and allied product manufacturing | 316 | | | | |
| Footwear manufacturing | 3162 | 64 | 30 | 24 | 27 |
| Wood product manufacturing | 321 | | | | |
| Sawmills and wood preservation | 3211 | 1,296 | 1,239 | 1,277 | 1,297 |
| Veneer, plywood and engineered wood product manufacturing | 3212 | 667 | 625 | 575 | 557 |
| Other wood product manufacturing | 3219 | 533 | 519 | 541 | 555 |
| Paper manufacturing | 322 | | | | |
| Pulp, paper and paperboard mills | 3221 | 1,860 | 1,812 | 1,772 | 1,852 |
| Paperboard container manufacturing | 32221 | 437 | 454 | 441 | 459 |
| Paper bag and coated and treated paper manufacturing | 32222 | 161 | 160 | 167 | 177 |
| Other converted paper product manufacturing | 32229 | 137 | 138 | 137 | 148 |
| Printing and related support activities | 323 | | | | |
| Printing | 32311 | 751 | 741 | 764 | 811 |
| Support activities for printing | 32312 | 35 | 39 | 39 | 45 |
| Petroleum and coal products manufacturing | 324 | | | | |
| Petroleum refineries | 32411 | 2,846 | 2,641 | 2,465 | 2,540 |
| Chemical manufacturing | 325 | | | | |
| Other basic inorganic chemical manufacturing | 32518 | 235 | 247 | 241 | 246 |
| Other basic organic chemical manufacturing | 32519 | 206 | 181 | 221 | 219 |
| Resin, synthetic rubber, and artificial and synthetic fibres and filaments manufacturing | 3252 | 508 | 514 | 541 | 569 |
| Pesticide and other agricultural chemical manufacturing | 32532 | 9 | 31 | 82 | 72 |
| Pharmaceutical and medicine manufacturing | 3254 | 614 | 717 | 798 | 753 |
| Paint and coating manufacturing | 32551 | 171 | 176 | 188 | 180 |
| Adhesive manufacturing | 32552 | 57 | 60 | 57 | 68 |
| Soap and cleaning compound manufacturing | 32561 | 113 | 116 | 119 | 115 |
| Toilet preparation manufacturing | 32562 | 153 | 142 | 158 | 138 |
| Printing ink manufacturing | 32591 | 36 | 33 | 35 | 36 |
| All other chemical product manufacturing | 32599 | 334 | 343 | 333 | 347 |

Table 8a

Shipments for selected industries, unadjusted - continued

| | NAICS Code | Current periods | | | |
|--|---------------|-----------------|--------------|--------------|-------------|
| | | August 2003 | July 2003 | June 2003 | May 2003 |
| \$ millions | | | | | |
| Plastics and rubber products manufacturing | 326 | | | | |
| Plastic pipe, pipe fitting and unsupported profile shape manufacturing | 32612 | 181 | 173 | 167 | 164 |
| Polystyrene foam product manufacturing | 32614 | 34 | 35 | 34 | 29 |
| Other plastic product manufacturing | 32619 | 825 | 778 | 850 | 889 |
| Other rubber product manufacturing | 32629 | 198 | 177 | 200 | 207 |
| Non-metallic mineral product manufacturing | 327 | | | | |
| Clay product and refractory manufacturing | 3271 | 58 | 63 | 65 | 65 |
| Glass and glass product manufacturing | 3272 | 217 | 205 | 228 | 231 |
| Cement manufacturing | 32731 | 155 | 161 | 154 | 140 |
| Ready-mix concrete manufacturing | 32732 | 268 | 278 | 262 | 231 |
| Other concrete product manufacturing | 32739 | 125 | 119 | 113 | 105 |
| Abrasive product manufacturing | 32791 | 27 | 32 | 32 | 37 |
| All other non-metallic mineral product manufacturing | 32799 | 121 | 117 | 112 | 121 |
| Primary metal manufacturing | 331 | | | | |
| Iron and steel mills and ferro-alloy manufacturing | 3311 | 797 | 812 | 843 | 902 |
| Iron and steel pipes and tubes manufacturing from purchased steel | 33121 | 242 | 215 | 215 | 215 |
| Foundries | 3315 | 235 | 206 | 280 | 282 |
| Fabricated metal product manufacturing | 332 | | | | |
| Cutlery and hand tool manufacturing | 3322 | 37 | 41 | 43 | 48 |
| Plate work and fabricated structural product manufacturing | 33231 | 405 | 390 | 367 | 312 |
| Power boiler and heat exchanger manufacturing | 33241 | 125 | 125 | 186 | 104 |
| Spring and wire product manufacturing | 3326 | 105 | 97 | 113 | 120 |
| Coating, engraving, heat treating and allied activities | 3328 | 211 | 188 | 207 | 222 |
| Other fabricated metal product manufacturing | 3329 | 226 | 230 | 248 | 257 |
| Machinery manufacturing | 333 | | | | |
| Agricultural implement manufacturing | 33311 | 130 | 152 | 166 | 185 |
| Ventilation, heating, air-conditioning and commercial refrigeration equipment manufacturing | 3334 | 182 | 176 | 181 | 178 |
| All other general-purpose machinery manufacturing | 33399 | 135 | 138 | 124 | 146 |
| Computer and electronic product manufacturing | 334 | | | | |
| Computer and peripheral equipment manufacturing | 3341 | 279 | 256 | 383 | 284 |
| Communications equipment manufacturing | 3342 | 375 | 344 | 556 | 362 |
| Audio and video equipment manufacturing | 3343 | 14 | 14 | 15 | 15 |
| Electrical equipment, appliance and component manufacturing | 335 | | | | |
| Lighting fixture manufacturing | 33512 | 70 | 69 | 68 | 70 |
| Small electrical appliance manufacturing | 33521 | 20 | 19 | 19 | 21 |
| Major appliance manufacturing | 33522 | 108 | 113 | 133 | 132 |
| Battery manufacturing | 33591 | 12 | 12 | 12 | 12 |
| Communication and energy wire and cable manufacturing | 33592 | 102 | 91 | 106 | 96 |
| All other electrical equipment and component manufacturing | 33599 | 68 | 63 | 66 | 74 |
| Transportation equipment manufacturing | 336 | | | | |
| Motor vehicle manufacturing | 3361 | 4,370 | 3,456 | 5,702 | 6,010 |
| Motor vehicle parts manufacturing | 3363 | 2,561 | 1,861 | 2,701 | 2,723 |
| Aerospace product and parts manufacturing | 3364 | 859 | 851 | 957 | 958 |
| Railroad rolling stock manufacturing | 3365 | 151 | 149 | 259 | 249 |
| Ship and boat building | 3366 | 68 | 75 | 84 | 115 |
| Furniture and related product manufacturing | 337 | | | | |
| Household and institutional furniture and kitchen cabinet manufacturing | 3371 | 612 | 545 | 593 | 601 |
| Office furniture (including fixtures) manufacturing | 3372 | 375 | 368 | 389 | 370 |
| Miscellaneous manufacturing | 339 | | | | |
| Medical equipment and supplies manufacturing | 3391 | 110 | 113 | 129 | 115 |
| Other miscellaneous manufacturing | 3399 | 352 | 343 | 329 | 340 |

Table 8a

Shipments for selected industries, unadjusted - continued

| | NAICS Code | Previous year | | Year-to-date | | Annual | |
|--|------------|---------------|------------|--------------------|--------------|--------------------|--------------|
| | | August 2002 | July 2002 | % Change from 2002 | 2003 | % Change from 2001 | 2002 |
| \$ millions | | | | | | | |
| Food manufacturing | 311 | | | | | | |
| Animal food manufacturing | 3111 | 453 | 457 | -4.0 | 3,413 | 6.1 | 5,392 |
| Starch and vegetable fat and oil manufacturing | 31122 | 254 | 228 | 11.6 | 2,021 | 3.3 | 2,811 |
| Sugar and confectionery product manufacturing | 3113 | 343 | 303 | 9.8 | 2,612 | 1.4 | 3,846 |
| Fruit and vegetable preserving and specialty food manufacturing | 3114 | 500 | 479 | -3.1 | 3,709 | -1.7 | 5,923 |
| Dairy product manufacturing | 3115 | 829 | 861 | 12.3 | 7,309 | 1.2 | 9,887 |
| Meat product manufacturing | 3116 | 1,500 | 1,496 | -6.9 | 11,012 | -6.6 | 17,674 |
| Cookie, cracker and pasta manufacturing | 31182 | 117 | 107 | -3.6 | 885 | -7.7 | 1,425 |
| Other food manufacturing | 3119 | 503 | 484 | 7.0 | 3,932 | 11.9 | 5,723 |
| Beverage and tobacco product manufacturing | 312 | | | | | | |
| Soft drink and ice manufacturing | 31211 | 372 | 401 | 8.7 | 2,687 | 5.2 | 3,688 |
| Breweries | 31212 | 408 | 431 | 0.6 | 2,749 | 2.0 | 4,103 |
| Wineries | 31213 | 50 | 52 | 2.4 | 358 | 11.8 | 585 |
| Distilleries | 31214 | 102 | 107 | -12.5 | 669 | 9.1 | 1,265 |
| Tobacco manufacturing | 3122 | 279 | 285 | 2.9 | 2,509 | 1.3 | 3,663 |
| Textile mills | 313 | | | | | | |
| Fibre, yarn and thread mills | 3131 | 38 | 31 | -15.3 | 266 | -5.0 | 465 |
| Fabric mills | 3132 | 176 | 138 | -8.7 | 1,279 | -3.2 | 2,067 |
| Textile and fabric finishing and fabric coating | 3133 | 58 | 50 | -12.8 | 398 | -4.1 | 678 |
| Textile product mills | 314 | | | | | | |
| Carpet and rug mills | 31411 | 77 | 63 | -4.8 | 563 | -3.6 | 890 |
| Textile bag and canvas mills | 31491 | 41 | 44 | -32.0 | 210 | 7.2 | 429 |
| Clothing manufacturing | 315 | | | | | | |
| Hosiery and sock mills | 31511 | 42 | 41 | -4.9 | 304 | 0.4 | 511 |
| Other clothing knitting mills | 31519 | 51 | 44 | 22.9 | 346 | 0.1 | 519 |
| Men's and boys' cut and sew clothing manufacturing | 31522 | 204 | 175 | -9.4 | 1,353 | -4.9 | 2,360 |
| Women's and girls' cut and sew clothing manufacturing | 31523 | 232 | 180 | -8.0 | 1,396 | -3.7 | 2,221 |
| Clothing accessories and other clothing manufacturing | 3159 | 22 | 18 | -1.6 | 152 | -4.0 | 242 |
| Leather and allied product manufacturing | 316 | | | | | | |
| Footwear manufacturing | 3162 | 72 | 33 | -16.5 | 248 | -5.8 | 518 |
| Wood product manufacturing | 321 | | | | | | |
| Sawmills and wood preservation | 3211 | 1,511 | 1,433 | -17.5 | 10,204 | 4.4 | 17,697 |
| Veneer, plywood and engineered wood product manufacturing | 3212 | 532 | 499 | 8.0 | 4,483 | 6.1 | 6,230 |
| Other wood product manufacturing | 3219 | 510 | 467 | 12.5 | 4,011 | 18.2 | 5,571 |
| Paper manufacturing | 322 | | | | | | |
| Pulp, paper and paperboard mills | 3221 | 2,074 | 2,008 | -4.2 | 14,841 | -6.8 | 23,505 |
| Paperboard container manufacturing | 32221 | 411 | 399 | 13.5 | 3,549 | 3.4 | 4,914 |
| Paper bag and coated and treated paper manufacturing | 32222 | 185 | 175 | -6.7 | 1,396 | 3.0 | 2,212 |
| Other converted paper product manufacturing | 32229 | 141 | 134 | 2.8 | 1,079 | 0.6 | 1,610 |
| Printing and related support activities | 323 | | | | | | |
| Printing | 32311 | 789 | 742 | -0.4 | 6,229 | -1.4 | 9,557 |
| Support activities for printing | 32312 | 40 | 42 | -1.3 | 324 | -37.0 | 504 |
| Petroleum and coal products manufacturing | 324 | | | | | | |
| Petroleum refineries | 32411 | 2,741 | 2,504 | 23.8 | 22,486 | 0.8 | 29,276 |
| Chemical manufacturing | 325 | | | | | | |
| Other basic inorganic chemical manufacturing | 32518 | 232 | 243 | 8.1 | 1,924 | 6.8 | 2,726 |
| Other basic organic chemical manufacturing | 32519 | 204 | 174 | 8.0 | 1,774 | 1.8 | 2,521 |
| Resin, synthetic rubber, and artificial and synthetic fibres and filaments manufacturing | 3252 | 542 | 507 | 4.6 | 4,462 | 0.6 | 6,379 |
| Pesticide and other agricultural chemical manufacturing | 32532 | 8 | 10 | 27.3 | 404 | -13.4 | 341 |
| Pharmaceutical and medicine manufacturing | 3254 | 708 | 733 | 8.0 | 5,717 | 22.0 | 8,402 |
| Paint and coating manufacturing | 32551 | 168 | 164 | 0.7 | 1,328 | -1.4 | 1,875 |
| Adhesive manufacturing | 32552 | 55 | 52 | 3.4 | 451 | 12.2 | 624 |
| Soap and cleaning compound manufacturing | 32561 | 132 | 128 | -6.3 | 952 | -7.5 | 1,516 |
| Toilet preparation manufacturing | 32562 | 152 | 103 | 7.1 | 1,191 | 3.2 | 1,663 |
| Printing ink manufacturing | 32591 | 35 | 33 | 1.5 | 279 | 13.3 | 419 |
| All other chemical product manufacturing | 32599 | 372 | 360 | 2.5 | 2,763 | 2.6 | 4,104 |

Table 8a

Shipments for selected industries, unadjusted - continued

| | NAICS Code | Previous year | | Year-to-date | | Annual | |
|--|---------------|----------------|--------------|-----------------------|--------|-----------------------|--------|
| | | August 2002 | July 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 | 168 | 158 | 5.4 | 1,238 | 4.2 | 1,758 |
| Polystyrene foam product manufacturing | 32614 | 28 | 30 | 8.1 | 230 | 3.8 | 321 |
| Other plastic product manufacturing | 32619 | 866 | 788 | 0.6 | 6,395 | 8.6 | 9,435 |
| Other rubber product manufacturing | 32629 | 204 | 172 | -1.2 | 1,598 | 0.0 | 2,409 |
| Non-metallic mineral product manufacturing | 327 | | | | | | |
| Clay product and refractory manufacturing | 3271 | 53 | 56 | 12.4 | 454 | 5.0 | 613 |
| Glass and glass product manufacturing | 3272 | 226 | 193 | 3.3 | 1,645 | 6.2 | 2,396 |
| Cement manufacturing | 32731 | 160 | 154 | -0.4 | 914 | 5.7 | 1,425 |
| Ready-mix concrete manufacturing | 32732 | 264 | 251 | 3.1 | 1,511 | 9.1 | 2,337 |
| Other concrete product manufacturing | 32739 | 117 | 112 | 5.8 | 730 | 1.3 | 1,127 |
| Abrasive product manufacturing | 32791 | 38 | 33 | -0.5 | 281 | 36.5 | 450 |
| All other non-metallic mineral product manufacturing | 32799 | 124 | 110 | 13.6 | 922 | 28.8 | 1,314 |
| Primary metal manufacturing | 331 | | | | | | |
| Iron and steel mills and ferro-alloy manufacturing | 3311 | 851 | 913 | 3.7 | 7,105 | 11.3 | 10,368 |
| Iron and steel pipes and tubes manufacturing from purchased steel | 33121 | 218 | 204 | 12.7 | 1,868 | 1.4 | 2,529 |
| Foundries | 3315 | 266 | 202 | 0.9 | 2,119 | 8.7 | 3,161 |
| Fabricated metal product manufacturing | 332 | | | | | | |
| Cutlery and hand tool manufacturing | 3322 | 36 | 34 | 16.4 | 345 | 6.3 | 467 |
| Plate work and fabricated structural product manufacturing | 33231 | 404 | 361 | -2.9 | 2,736 | 0.4 | 4,286 |
| Power boiler and heat exchanger manufacturing | 33241 | 79 | 77 | 39.9 | 902 | 7.6 | 1,022 |
| Spring and wire product manufacturing | 3326 | 128 | 111 | -8.4 | 903 | 9.8 | 1,477 |
| Coating, engraving, heat treating and allied activities | 3328 | 230 | 182 | 1.8 | 1,748 | 20.0 | 2,633 |
| Other fabricated metal product manufacturing | 3329 | 277 | 248 | -2.6 | 1,967 | 9.5 | 3,005 |
| Machinery manufacturing | 333 | | | | | | |
| Agricultural implement manufacturing | 33311 | 176 | 174 | -15.0 | 1,406 | 6.1 | 2,323 |
| Ventilation, heating, air-conditioning and commercial refrigeration equipment manufacturing | 3334 | 205 | 188 | -6.0 | 1,423 | 9.7 | 2,298 |
| All other general-purpose machinery manufacturing | 33399 | 185 | 200 | -23.1 | 1,120 | 15.4 | 2,275 |
| Computer and electronic product manufacturing | 334 | | | | | | |
| Computer and peripheral equipment manufacturing | 3341 | 381 | 412 | -28.5 | 2,361 | -16.6 | 4,699 |
| Communications equipment manufacturing | 3342 | 484 | 543 | -31.4 | 3,277 | -23.7 | 7,137 |
| Audio and video equipment manufacturing | 3343 | 16 | 18 | -8.7 | 124 | -7.2 | 218 |
| Electrical equipment, appliance and component manufacturing | 335 | | | | | | |
| Lighting fixture manufacturing | 33512 | 73 | 76 | -7.3 | 538 | -3.7 | 877 |
| Small electrical appliance manufacturing | 33521 | 22 | 21 | 1.8 | 157 | -9.3 | 250 |
| Major appliance manufacturing | 33522 | 117 | 122 | -4.8 | 993 | 12.4 | 1,529 |
| Battery manufacturing | 33591 | 10 | 12 | 3.5 | 95 | -15.1 | 139 |
| Communication and energy wire and cable manufacturing | 33592 | 107 | 126 | -23.4 | 770 | -42.2 | 1,436 |
| All other electrical equipment and component manufacturing | 33599 | 66 | 55 | 3.3 | 528 | -2.3 | 772 |
| Transportation equipment manufacturing | 336 | | | | | | |
| Motor vehicle manufacturing | 3361 | 5,825 | 3,527 | -4.2 | 42,381 | 5.7 | 65,797 |
| Motor vehicle parts manufacturing | 3363 | 3,007 | 2,019 | -5.1 | 20,844 | 10.2 | 32,741 |
| Aerospace product and parts manufacturing | 3364 | 980 | 825 | -4.1 | 7,743 | -15.0 | 12,472 |
| Railroad rolling stock manufacturing | 3365 | 237 | 189 | 0.1 | 1,855 | 5.4 | 2,878 |
| Ship and boat building | 3366 | 76 | 101 | -29.1 | 696 | 20.6 | 1,242 |
| Furniture and related product manufacturing | 337 | | | | | | |
| Household and institutional furniture and kitchen cabinet manufacturing | 3371 | 609 | 563 | -3.6 | 4,631 | 7.7 | 7,133 |
| Office furniture (including fixtures) manufacturing | 3372 | 415 | 347 | 9.5 | 3,044 | -6.0 | 4,319 |
| Miscellaneous manufacturing | 339 | | | | | | |
| Medical equipment and supplies manufacturing | 3391 | 106 | 106 | -4.4 | 909 | 5.3 | 1,432 |
| Other miscellaneous manufacturing | 3399 | 349 | 356 | 2.0 | 2,664 | 9.7 | 4,095 |

Table 8b
Inventory owned for selected industries, unadjusted

| | NAICS Code | Current periods | | | |
|---|---------------|-----------------|--------------|--------------|-------------|
| | | August 2003 | July 2003 | June 2003 | May 2003 |
| \$ millions | | | | | |
| Food manufacturing | 311 | | | | |
| Animal food manufacturing | 3111 | 287 | 288 | 275 | 263 |
| Starch and vegetable fat and oil manufacturing | 31122 | 155 | 173 | 171 | 167 |
| Sugar and confectionery product manufacturing | 3113 | 380 | 384 | 388 | 360 |
| Fruit and vegetable preserving and specialty food manufacturing | 3114 | 883 | 829 | 828 | 843 |
| Dairy product manufacturing | 3115 | 767 | 790 | 803 | 801 |
| Meat product manufacturing | 3116 | 818 | 789 | 781 | 779 |
| Cookie, cracker and pasta manufacturing | 31182 | 112 | 123 | 130 | 127 |
| Other food manufacturing | 3119 | 497 | 492 | 482 | 489 |
| Beverage and tobacco product manufacturing | 312 | | | | |
| Soft drink and ice manufacturing | 31211 | 265 | 277 | 275 | 282 |
| Breweries | 31212 | 174 | 177 | 180 | 183 |
| Wineries | 31213 | 212 | 217 | 219 | 212 |
| Distilleries | 31214 | 531 | 529 | 528 | 540 |
| Tobacco manufacturing | 3122 | 570 | 568 | 577 | 598 |
| Textile mills | 313 | | | | |
| Fibre, yarn and thread mills | 3131 | 50 | 55 | 54 | 53 |
| Fabric mills | 3132 | 328 | 338 | 336 | 335 |
| Textile and fabric finishing and fabric coating | 3133 | 68 | 67 | 64 | 68 |
| Textile product mills | 314 | | | | |
| Carpet and rug mills | 31411 | 82 | 83 | 84 | 85 |
| Textile bag and canvas mills | 31491 | 47 | 45 | 46 | 49 |
| Clothing manufacturing | 315 | | | | |
| Hosiery and sock mills | 31511 | 151 | 152 | 159 | 151 |
| Other clothing knitting mills | 31519 | 122 | 132 | 135 | 129 |
| Men's and boys' cut and sew clothing manufacturing | 31522 | 407 | 435 | 446 | 422 |
| Women's and girls' cut and sew clothing manufacturing | 31523 | 378 | 368 | 362 | 327 |
| Clothing accessories and other clothing manufacturing | 3159 | 84 | 81 | 78 | 75 |
| Leather and allied product manufacturing | 316 | | | | |
| Footwear manufacturing | 3162 | 103 | 114 | 107 | 95 |
| Wood product manufacturing | 321 | | | | |
| Sawmills and wood preservation | 3211 | 2,566 | 2,684 | 2,720 | 2,969 |
| Veneer, plywood and engineered wood product manufacturing | 3212 | 627 | 660 | 683 | 722 |
| Other wood product manufacturing | 3219 | 854 | 857 | 877 | 888 |
| Paper manufacturing | 322 | | | | |
| Pulp, paper and paperboard mills | 3221 | 2,470 | 2,497 | 2,512 | 2,521 |
| Paperboard container manufacturing | 32221 | 536 | 563 | 564 | 564 |
| Paper bag and coated and treated paper manufacturing | 32222 | 276 | 279 | 276 | 275 |
| Other converted paper product manufacturing | 32229 | 152 | 157 | 158 | 155 |
| Printing and related support activities | 323 | | | | |
| Printing | 32311 | 711 | 707 | 693 | 696 |
| Support activities for printing | 32312 | 8 | 8 | 8 | 9 |
| Petroleum and coal products manufacturing | 324 | | | | |
| Petroleum refineries | 32411 | 1,432 | 1,475 | 1,372 | 1,293 |
| Chemical manufacturing | 325 | | | | |
| Other basic inorganic chemical manufacturing | 32518 | 189 | 192 | 194 | 193 |
| Other basic organic chemical manufacturing | 32519 | 158 | 172 | 152 | 163 |
| Resin, synthetic rubber, and artificial and synthetic fibres and filaments manufacturing | 3252 | 542 | 572 | 584 | 632 |
| Pesticide and other agricultural chemical manufacturing | 32532 | 127 | 119 | 108 | 110 |
| Pharmaceutical and medicine manufacturing | 3254 | 3,165 | 2,987 | 3,095 | 3,139 |
| Paint and coating manufacturing | 32551 | 260 | 261 | 271 | 266 |
| Adhesive manufacturing | 32552 | 88 | 89 | 91 | 88 |
| Soap and cleaning compound manufacturing | 32561 | 104 | 102 | 107 | 112 |
| Toilet preparation manufacturing | 32562 | 193 | 192 | 186 | 193 |
| Printing ink manufacturing | 32591 | 56 | 57 | 54 | 53 |
| All other chemical product manufacturing | 32599 | 295 | 304 | 316 | 317 |

Table 8b

Inventory owned for selected industries, unadjusted - continued

| | NAICS Code | Current periods | | | |
|--|---------------|-----------------|--------------|-------------|---------------|
| | | July 2003 | June 2003 | May 2003 | April 2003 |
| \$ millions | | | | | |
| Plastics and rubber products manufacturing | 326 | | | | |
| Plastic pipe, pipe fitting and unsupported profile shape manufacturing | 32612 | 210 | 219 | 226 | 230 |
| Polystyrene foam product manufacturing | 32614 | 38 | 35 | 37 | 38 |
| Other plastic product manufacturing | 32619 | 866 | 868 | 893 | 928 |
| Other rubber product manufacturing | 32629 | 173 | 181 | 182 | 191 |
| Non-metallic mineral product manufacturing | 327 | | | | |
| Clay product and refractory manufacturing | 3271 | 109 | 107 | 94 | 99 |
| Glass and glass product manufacturing | 3272 | 276 | 277 | 275 | 278 |
| Cement manufacturing | 32731 | 153 | 172 | 185 | 193 |
| Ready-mix concrete manufacturing | 32732 | 103 | 104 | 101 | 99 |
| Other concrete product manufacturing | 32739 | 100 | 100 | 93 | 94 |
| Abrasive product manufacturing | 32791 | 117 | 122 | 124 | 131 |
| All other non-metallic mineral product manufacturing | 32799 | 146 | 145 | 144 | 144 |
| Primary metal manufacturing | 331 | | | | |
| Iron and steel mills and ferro-alloy manufacturing | 3311 | 1,998 | 2,010 | 2,002 | 2,045 |
| Iron and steel pipes and tubes manufacturing from purchased steel | 33121 | 560 | 581 | 603 | 632 |
| Foundries | 3315 | 262 | 279 | 292 | 307 |
| Fabricated metal product manufacturing | 332 | | | | |
| Cutlery and hand tool manufacturing | 3322 | 78 | 75 | 79 | 80 |
| Plate work and fabricated structural product manufacturing | 33231 | 470 | 483 | 495 | 493 |
| Power boiler and heat exchanger manufacturing | 33241 | 157 | 155 | 164 | 187 |
| Spring and wire product manufacturing | 3326 | 124 | 135 | 143 | 150 |
| Coating, engraving, heat treating and allied activities | 3328 | 162 | 154 | 147 | 154 |
| Other fabricated metal product manufacturing | 3329 | 560 | 569 | 552 | 563 |
| Machinery manufacturing | 333 | | | | |
| Agricultural implement manufacturing | 33311 | 482 | 477 | 524 | 526 |
| Ventilation, heating, air-conditioning and commercial refrigeration equipment manufacturing | 3334 | 356 | 364 | 375 | 370 |
| All other general-purpose machinery manufacturing | 33399 | 429 | 416 | 408 | 395 |
| Computer and electronic product manufacturing | 334 | | | | |
| Computer and peripheral equipment manufacturing | 3341 | 558 | 549 | 565 | 592 |
| Communications equipment manufacturing | 3342 | 2,033 | 2,030 | 1,987 | 2,157 |
| Audio and video equipment manufacturing | 3343 | 52 | 50 | 53 | 56 |
| Electrical equipment, appliance and component manufacturing | 335 | | | | |
| Lighting fixture manufacturing | 33512 | 132 | 135 | 129 | 131 |
| Small electrical appliance manufacturing | 33521 | 46 | 48 | 47 | 47 |
| Major appliance manufacturing | 33522 | 168 | 162 | 175 | 192 |
| Battery manufacturing | 33591 | 69 | 68 | 64 | 64 |
| Communication and energy wire and cable manufacturing | 33592 | 279 | 281 | 284 | 291 |
| All other electrical equipment and component manufacturing | 33599 | 111 | 106 | 106 | 108 |
| Transportation equipment manufacturing | 336 | | | | |
| Motor vehicle manufacturing | 3361 | 1,210 | 1,229 | 1,327 | 1,471 |
| Motor vehicle parts manufacturing | 3363 | 1,843 | 1,928 | 1,911 | 1,949 |
| Aerospace product and parts manufacturing | 3364 | 7,879 | 7,783 | 7,999 | 8,121 |
| Railroad rolling stock manufacturing | 3365 | 1,098 | 1,135 | 1,168 | 1,198 |
| Ship and boat building | 3366 | 113 | 111 | 112 | 118 |
| Furniture and related product manufacturing | 337 | | | | |
| Household and institutional furniture and kitchen cabinet manufacturing | 3371 | 796 | 804 | 825 | 837 |
| Office furniture (including fixtures) manufacturing | 3372 | 471 | 463 | 439 | 428 |
| Miscellaneous manufacturing | 339 | | | | |
| Medical equipment and supplies manufacturing | 3391 | 184 | 182 | 177 | 172 |
| Other miscellaneous manufacturing | 3399 | 793 | 815 | 831 | 852 |

Table 8b

Inventory owned for selected industries, unadjusted - continued

| | NAICS Code | Previous year | | Year-to-date | | Average per month | |
|--|---------------|---------------|--------------|-----------------------|-----------------|-----------------------|-------|
| | | July 2002 | June 2002 | % Change from 2002 | Average 2003 | % Change from 2001 | 2002 |
| \$ millions | | | | | | | |
| Food manufacturing | 311 | | | | | | |
| Animal food manufacturing | 3111 | 264 | 260 | 5.0 | 275 | 7.2 | 263 |
| Starch and vegetable fat and oil manufacturing | 31122 | 180 | 183 | 7.2 | 194 | 6.5 | 189 |
| Sugar and confectionery product manufacturing | 3113 | 361 | 358 | 1.8 | 363 | -1.3 | 359 |
| Fruit and vegetable preserving and specialty food manufacturing | 3114 | 843 | 792 | 5.3 | 862 | 7.6 | 868 |
| Dairy product manufacturing | 3115 | 724 | 733 | 5.6 | 789 | 5.3 | 748 |
| Meat product manufacturing | 3116 | 841 | 846 | -8.7 | 823 | -1.6 | 884 |
| Cookie, cracker and pasta manufacturing | 31182 | 107 | 102 | 12.3 | 124 | -1.9 | 115 |
| Other food manufacturing | 3119 | 510 | 514 | -0.7 | 480 | 4.4 | 482 |
| Beverage and tobacco product manufacturing | 312 | | | | | | |
| Soft drink and ice manufacturing | 31211 | 276 | 282 | 2.3 | 259 | 13.8 | 253 |
| Breweries | 31212 | 175 | 174 | 3.8 | 172 | 10.2 | 168 |
| Wineries | 31213 | 200 | 202 | 7.0 | 219 | 12.6 | 209 |
| Distilleries | 31214 | 500 | 484 | 11.2 | 524 | 12.1 | 484 |
| Tobacco manufacturing | 3122 | 549 | 560 | -4.0 | 599 | -6.2 | 602 |
| Textile mills | 313 | | | | | | |
| Fibre, yarn and thread mills | 3131 | 59 | 55 | -11.0 | 54 | -22.3 | 58 |
| Fabric mills | 3132 | 358 | 359 | -12.6 | 335 | -7.1 | 368 |
| Textile and fabric finishing and fabric coating | 3133 | 58 | 56 | 18.0 | 68 | -7.4 | 60 |
| Textile product mills | 314 | | | | | | |
| Carpet and rug mills | 31411 | 85 | 82 | 3.5 | 85 | -21.6 | 81 |
| Textile bag and canvas mills | 31491 | 72 | 77 | -30.2 | 48 | 5.1 | 67 |
| Clothing manufacturing | 315 | | | | | | |
| Hosiery and sock mills | 31511 | 145 | 132 | 8.2 | 147 | -0.7 | 136 |
| Other clothing knitting mills | 31519 | 112 | 118 | 14.2 | 120 | 0.2 | 103 |
| Men's and boys' cut and sew clothing manufacturing | 31522 | 382 | 364 | 12.3 | 413 | -19.9 | 369 |
| Women's and girls' cut and sew clothing manufacturing | 31523 | 357 | 382 | -2.0 | 345 | -7.8 | 351 |
| Clothing accessories and other clothing manufacturing | 3159 | 65 | 68 | 15.8 | 74 | -14.6 | 64 |
| Leather and allied product manufacturing | 316 | | | | | | |
| Footwear manufacturing | 3162 | 105 | 115 | -2.8 | 93 | -10.9 | 92 |
| Wood product manufacturing | 321 | | | | | | |
| Sawmills and wood preservation | 3211 | 2,712 | 2,686 | -0.8 | 3,091 | -9.8 | 2,996 |
| Veneer, plywood and engineered wood product manufacturing | 3212 | 618 | 610 | 9.0 | 717 | -4.4 | 652 |
| Other wood product manufacturing | 3219 | 791 | 789 | 11.6 | 878 | 7.2 | 801 |
| Paper manufacturing | 322 | | | | | | |
| Pulp, paper and paperboard mills | 3221 | 2,501 | 2,508 | -2.2 | 2,514 | -8.5 | 2,549 |
| Paperboard container manufacturing | 32221 | 514 | 525 | 5.1 | 548 | -5.0 | 514 |
| Paper bag and coated and treated paper manufacturing | 32222 | 251 | 251 | 9.6 | 276 | 2.2 | 254 |
| Other converted paper product manufacturing | 32229 | 150 | 153 | 4.0 | 153 | -3.8 | 147 |
| Printing and related support activities | 323 | | | | | | |
| Printing | 32311 | 693 | 671 | -0.4 | 688 | -4.4 | 688 |
| Support activities for printing | 32312 | 14 | 14 | -37.0 | 9 | -42.6 | 14 |
| Petroleum and coal products manufacturing | 324 | | | | | | |
| Petroleum refineries | 32411 | 1,386 | 1,337 | 2.6 | 1,385 | -12.4 | 1,322 |
| Chemical manufacturing | 325 | | | | | | |
| Other basic inorganic chemical manufacturing | 32518 | 169 | 170 | -1.3 | 187 | -4.3 | 184 |
| Other basic organic chemical manufacturing | 32519 | 138 | 138 | 12.4 | 161 | -23.8 | 146 |
| Resin, synthetic rubber, and artificial and synthetic fibres and filaments manufacturing | 3252 | 523 | 496 | 9.8 | 575 | -18.9 | 525 |
| Pesticide and other agricultural chemical manufacturing | 32532 | 103 | 109 | -15.5 | 121 | -20.3 | 133 |
| Pharmaceutical and medicine manufacturing | 3254 | 2,790 | 2,650 | 20.4 | 3,105 | 32.8 | 2,665 |
| Paint and coating manufacturing | 32551 | 245 | 246 | 3.2 | 261 | -9.1 | 249 |
| Adhesive manufacturing | 32552 | 79 | 80 | 7.8 | 88 | 15.5 | 81 |
| Soap and cleaning compound manufacturing | 32561 | 111 | 149 | -24.1 | 106 | -11.8 | 129 |
| Toilet preparation manufacturing | 32562 | 167 | 160 | 23.7 | 190 | -6.8 | 162 |
| Printing ink manufacturing | 32591 | 50 | 49 | 4.3 | 52 | -4.2 | 50 |
| All other chemical product manufacturing | 32599 | 316 | 308 | 2.5 | 314 | -0.9 | 312 |

Table 8b

Inventory owned for selected industries, unadjusted - concluded

| | NAICS Code | Previous year | | Year-to-date | | Average per month | |
|--|---------------|----------------|--------------|-----------------------|-----------------|-----------------------|-------|
| | | August 2002 | July 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 | 223 | 215 | 1.8 | 225 | -6.3 | 223 |
| Polystyrene foam product manufacturing | 32614 | 31 | 30 | 23.0 | 38 | 1.6 | 31 |
| Other plastic product manufacturing | 32619 | 840 | 841 | 8.5 | 904 | 7.8 | 848 |
| Other rubber product manufacturing | 32629 | 189 | 191 | -2.0 | 186 | -7.2 | 189 |
| Non-metallic mineral product manufacturing | 327 | | | | | | |
| Clay product and refractory manufacturing | 3271 | 89 | 88 | 7.9 | 96 | -12.2 | 89 |
| Glass and glass product manufacturing | 3272 | 274 | 271 | 0.0 | 277 | 2.8 | 272 |
| Cement manufacturing | 32731 | 176 | 184 | -5.8 | 189 | -1.9 | 187 |
| Ready-mix concrete manufacturing | 32732 | 104 | 106 | -5.3 | 98 | -8.6 | 102 |
| Other concrete product manufacturing | 32739 | 81 | 86 | 9.6 | 92 | 1.3 | 82 |
| Abrasive product manufacturing | 32791 | 161 | 166 | -15.6 | 129 | 32.0 | 151 |
| All other non-metallic mineral product manufacturing | 32799 | 142 | 153 | 4.7 | 146 | 0.9 | 141 |
| Primary metal manufacturing | 331 | | | | | | |
| Iron and steel mills and ferro-alloy manufacturing | 3311 | 2,078 | 1,963 | 7.3 | 2,086 | -1.1 | 2,050 |
| Iron and steel pipes and tubes manufacturing from purchased steel | 33121 | 527 | 501 | 17.2 | 598 | 6.7 | 543 |
| Foundries | 3315 | 275 | 273 | 1.9 | 292 | 1.0 | 287 |
| Fabricated metal product manufacturing | 332 | | | | | | |
| Cutlery and hand tool manufacturing | 3322 | 84 | 81 | 1.2 | 83 | 9.3 | 83 |
| Plate work and fabricated structural product manufacturing | 33231 | 456 | 467 | 4.4 | 470 | 2.9 | 448 |
| Power boiler and heat exchanger manufacturing | 33241 | 155 | 152 | 20.3 | 174 | 27.1 | 148 |
| Spring and wire product manufacturing | 3326 | 158 | 155 | -3.2 | 147 | -7.4 | 154 |
| Coating, engraving, heat treating and allied activities | 3328 | 166 | 161 | 5.6 | 161 | 16.4 | 156 |
| Other fabricated metal product manufacturing | 3329 | 542 | 552 | 2.2 | 562 | 3.6 | 548 |
| Machinery manufacturing | 333 | | | | | | |
| Agricultural implement manufacturing | 33311 | 493 | 482 | 4.3 | 525 | 1.5 | 510 |
| Ventilation, heating, air-conditioning and commercial refrigeration equipment manufacturing | 3334 | 344 | 353 | 0.3 | 351 | 6.8 | 345 |
| All other general-purpose machinery manufacturing | 33399 | 391 | 380 | 12.6 | 390 | 12.2 | 363 |
| Computer and electronic product manufacturing | 334 | | | | | | |
| Computer and peripheral equipment manufacturing | 3341 | 601 | 590 | -6.7 | 575 | -42.7 | 607 |
| Communications equipment manufacturing | 3342 | 2,294 | 2,328 | -15.8 | 2,134 | -19.6 | 2,447 |
| Audio and video equipment manufacturing | 3343 | 52 | 51 | 13.5 | 55 | -10.6 | 51 |
| Electrical equipment, appliance and component manufacturing | 335 | | | | | | |
| Lighting fixture manufacturing | 33512 | 157 | 160 | -15.1 | 139 | -2.7 | 160 |
| Small electrical appliance manufacturing | 33521 | 47 | 48 | 15.3 | 47 | -19.2 | 43 |
| Major appliance manufacturing | 33522 | 153 | 157 | 10.7 | 177 | 10.6 | 160 |
| Battery manufacturing | 33591 | 72 | 72 | -11.5 | 64 | 44.2 | 70 |
| Communication and energy wire and cable manufacturing | 33592 | 283 | 284 | -5.8 | 279 | -42.2 | 291 |
| All other electrical equipment and component manufacturing | 33599 | 109 | 109 | -4.8 | 108 | -24.2 | 111 |
| Transportation equipment manufacturing | 336 | | | | | | |
| Motor vehicle manufacturing | 3361 | 1,729 | 1,733 | -14.9 | 1,459 | 2.9 | 1,730 |
| Motor vehicle parts manufacturing | 3363 | 1,762 | 1,795 | 11.3 | 1,930 | 3.9 | 1,762 |
| Aerospace product and parts manufacturing | 3364 | 8,120 | 7,532 | 1.6 | 7,849 | 0.3 | 7,817 |
| Railroad rolling stock manufacturing | 3365 | 1,374 | 1,324 | -7.4 | 1,199 | -14.0 | 1,338 |
| Ship and boat building | 3366 | 112 | 109 | -19.0 | 122 | -35.7 | 145 |
| Furniture and related product manufacturing | 337 | | | | | | |
| Household and institutional furniture and kitchen cabinet manufacturing | 3371 | 813 | 791 | 9.5 | 826 | 9.7 | 772 |
| Office furniture (including fixtures) manufacturing | 3372 | 399 | 389 | 11.1 | 436 | -11.1 | 398 |
| Miscellaneous manufacturing | 339 | | | | | | |
| Medical equipment and supplies manufacturing | 3391 | 185 | 182 | -4.1 | 175 | -5.8 | 180 |
| Other miscellaneous manufacturing | 3399 | 907 | 902 | 0.5 | 863 | 5.4 | 879 |

Table 9
Inventories owned by stage of fabrication

| Period covered | Unadjusted | | | |
|----------------|---------------------|------------------|-------------------|-------------------|
| | Raw materials | Goods in process | Finished products | Total inventories |
| August 2002 | 27,198 | 16,209 | 18,823 | 62,231 |
| September 2002 | 27,108 | 15,941 | 19,144 | 62,193 |
| October 2002 | 27,379 | 15,975 | 18,942 | 62,295 |
| 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 | 26,510 | 15,841 | 19,971 | 62,322 |
| July 2003 | 26,622 | 15,503 | 19,434 | 61,558 |
| August 2003 | 26,624 | 15,608 | 18,993 | 61,224 |
| Period covered | Seasonally adjusted | | | |
| | Raw materials | Goods in process | Finished products | Total inventories |
| August 2002 | 27,420 | 16,152 | 18,835 | 62,407 |
| September 2002 | 27,319 | 15,812 | 19,189 | 62,320 |
| October 2002 | 27,450 | 15,913 | 19,217 | 62,580 |
| 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 | 27,092 | 15,774 | 19,836 | 62,702 |
| July 2003 | 27,009 | 15,755 | 19,585 | 62,349 |
| August 2003 | 26,836 | 15,511 | 19,112 | 61,458 |

Table 10
Shipments by major group and province, unadjusted

| Province | Current year | | | |
|---|----------------|--------------|--------------|-------------|
| | August 2003 | July 2003 | June 2003 | May 2003 |
| | \$ millions | | | |
| Total | | | | |
| Newfoundland and Labrador | 240 | 282 | 264 | 207 |
| Prince Edward Island | 113 | 126 | 149 | 133 |
| Nova Scotia | 768 | 745 | 723 | 746 |
| New Brunswick | 1,163 | 1,078 | 1,187 | 1,094 |
| Quebec | 9,989 | 9,398 | 9,985 | 10,189 |
| Ontario | 21,075 | 19,769 | 23,476 | 24,156 |
| Manitoba | 938 | 946 | 968 | 1,017 |
| Saskatchewan | 596 | 611 | 649 | 667 |
| Alberta | 3,643 | 3,536 | 3,526 | 3,656 |
| British Columbia | 2,885 | 2,917 | 2,857 | 2,844 |
| 311 Food manufacturing | | | | |
| Newfoundland and Labrador | 99 | 130 | 117 | 78 |
| Prince Edward Island | 79 | 90 | 106 | 93 |
| Nova Scotia | 207 | 191 | 173 | 176 |
| New Brunswick | 162 | 169 | 280 | 175 |
| Quebec | 1,202 | 1,157 | 1,212 | 1,227 |
| Ontario | 2,064 | 2,109 | 2,114 | 2,216 |
| Manitoba | 243 | 247 | 250 | 257 |
| Saskatchewan | 152 | 155 | 155 | 164 |
| Alberta | 745 | 699 | 641 | 775 |
| British Columbia | 399 | 406 | 397 | 385 |
| 312 Beverage and tobacco product manufacturing | | | | |
| Nova Scotia | 25 | 29 | 23 | 21 |
| Quebec | 394 | 409 | 422 | 383 |
| Ontario | 603 | 627 | 590 | 571 |
| Saskatchewan | 6 | 7 | 6 | 6 |
| British Columbia | 99 | 103 | 98 | 95 |
| 313 Textile mills | | | | |
| Quebec | 157 | 115 | 165 | 171 |
| Ontario | 61 | 60 | 68 | 72 |
| 314 Textile product mills | | | | |
| Quebec | 80 | 76 | 83 | 83 |
| Ontario | 77 | 82 | 91 | 102 |
| Alberta | 3 | 3 | 3 | 3 |
| British Columbia | 9 | 10 | 9 | 9 |
| 315 Clothing manufacturing | | | | |
| Quebec | 341 | 288 | 260 | 281 |
| Ontario | 141 | 133 | 115 | 141 |
| Manitoba | 38 | 30 | 21 | 26 |
| Saskatchewan | 2 | 2 | 1 | 2 |
| Alberta | 7 | 7 | 6 | 7 |
| British Columbia | 24 | 25 | 22 | 17 |
| 316 Leather and allied product manufacturing | | | | |
| Quebec | 54 | 24 | 23 | 26 |
| Ontario | 21 | 15 | 12 | 13 |
| 321 Wood product manufacturing | | | | |
| Nova Scotia | 57 | 51 | 46 | 48 |
| Quebec | 688 | 542 | 655 | 688 |
| Ontario | 467 | 496 | 463 | 480 |
| Manitoba | 51 | 50 | 47 | 44 |
| Saskatchewan | 50 | 46 | 43 | 43 |
| Alberta | 224 | 219 | 200 | 184 |
| British Columbia | 791 | 814 | 790 | 773 |

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

| Province | Current year | | | |
|---|----------------|--------------|--------------|-------------|
| | August 2003 | July 2003 | June 2003 | May 2003 |
| | \$ millions | | | |
| 322 Paper manufacturing | | | | |
| Nova Scotia | 76 | 79 | 75 | 79 |
| Quebec | 908 | 910 | 881 | 937 |
| Ontario | 780 | 783 | 789 | 813 |
| Alberta | 142 | 131 | 126 | 127 |
| British Columbia | 434 | 419 | 408 | 433 |
| 323 Printing and related support activities | | | | |
| Quebec | 226 | 219 | 209 | 239 |
| Ontario | 386 | 406 | 434 | 443 |
| Manitoba | 33 | 34 | 37 | 40 |
| Saskatchewan | 11 | 10 | 8 | 9 |
| Alberta | 43 | 38 | 44 | 48 |
| British Columbia | 58 | 42 | 42 | 42 |
| 324 Petroleum and coal products manufacturing | | | | |
| Quebec | 689 | 648 | 548 | 555 |
| Ontario | 883 | 873 | 811 | 841 |
| Alberta | 765 | 714 | 681 | 689 |
| British Columbia | 66 | 69 | 64 | 63 |
| 325 Chemical manufacturing | | | | |
| Quebec | 693 | 719 | 772 | 849 |
| Ontario | 1,586 | 1,699 | 1,822 | 1,812 |
| Manitoba | 49 | 49 | 59 | 94 |
| Saskatchewan | 19 | 42 | 87 | 111 |
| Alberta | 536 | 531 | 572 | 742 |
| British Columbia | 112 | 96 | 108 | 117 |
| 326 Plastics and rubber products manufacturing | | | | |
| Nova Scotia | 85 | 89 | 88 | 92 |
| Quebec | 448 | 427 | 462 | 489 |
| Ontario | 1,125 | 1,081 | 1,193 | 1,243 |
| Manitoba | 43 | 43 | 43 | 49 |
| Saskatchewan | 9 | 10 | 10 | 10 |
| Alberta | 112 | 99 | 97 | 86 |
| British Columbia | 98 | 115 | 108 | 102 |
| 327 Non-metallic mineral product manufacturing | | | | |
| Nova Scotia | 16 | 19 | 17 | 17 |
| Quebec | 298 | 272 | 296 | 305 |
| Ontario | 514 | 536 | 528 | 503 |
| Saskatchewan | 13 | 15 | 13 | 12 |
| Alberta | 146 | 158 | 133 | 115 |
| British Columbia | 124 | 132 | 129 | 129 |
| 331 Primary metal manufacturing | | | | |
| Quebec | 949 | 1,019 | 1,015 | 1,046 |
| Ontario | 1,203 | 1,189 | 1,290 | 1,425 |
| Alberta | 79 | 79 | 75 | 65 |
| 332 Fabricated metal product manufacturing | | | | |
| Newfoundland and Labrador | 18 | 15 | 14 | 14 |
| Prince Edward Island | 2 | 2 | 2 | 1 |
| Nova Scotia | 36 | 31 | 28 | 21 |
| New Brunswick | 27 | 25 | 24 | 20 |
| Quebec | 494 | 434 | 449 | 453 |
| Ontario | 1,278 | 1,260 | 1,337 | 1,374 |
| Manitoba | 67 | 67 | 73 | 64 |
| Saskatchewan | 41 | 40 | 39 | 40 |
| Alberta | 273 | 286 | 318 | 248 |
| British Columbia | 136 | 140 | 140 | 135 |

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

| Province | Current year | | | |
|--|----------------|--------------|--------------|-------------|
| | August 2003 | July 2003 | June 2003 | May 2003 |
| | \$ millions | | | |
| 333 Machinery manufacturing | | | | |
| Quebec | 343 | 327 | 362 | 362 |
| Ontario | 859 | 985 | 979 | 1,089 |
| Manitoba | 67 | 92 | 83 | 83 |
| Saskatchewan | 44 | 42 | 40 | 48 |
| Alberta | 219 | 230 | 245 | 228 |
| British Columbia | 143 | 137 | 139 | 143 |
| 334 Computer and electronic product manufacturing | | | | |
| Quebec | 408 | 356 | 523 | 415 |
| Ontario | 836 | 766 | 945 | 848 |
| Saskatchewan | 9 | 8 | 10 | 7 |
| Alberta | 71 | 72 | 98 | 63 |
| British Columbia | 67 | 68 | 65 | 68 |
| 335 Electrical equipment, appliance and component manufacturing | | | | |
| Quebec | 244 | 235 | 261 | 244 |
| Ontario | 356 | 362 | 423 | 419 |
| Manitoba | 10 | 10 | 11 | 12 |
| Saskatchewan | 13 | 12 | 13 | 12 |
| Alberta | 39 | 41 | 39 | 33 |
| British Columbia | 30 | 28 | 27 | 35 |
| 336 Transportation equipment manufacturing | | | | |
| Nova Scotia | 44 | 41 | 56 | 64 |
| Quebec | 924 | 863 | 998 | 1,015 |
| Ontario | 7,074 | 5,537 | 8,657 | 8,973 |
| Manitoba | 131 | 120 | 133 | 142 |
| Saskatchewan | 21 | 26 | 23 | 31 |
| Alberta | 67 | 65 | 78 | 71 |
| British Columbia | 89 | 90 | 104 | 101 |
| 337 Furniture and related product manufacturing | | | | |
| Quebec | 287 | 233 | 265 | 294 |
| Ontario | 589 | 570 | 597 | 563 |
| Manitoba | 58 | 60 | 61 | 59 |
| Saskatchewan | 7 | 8 | 7 | 7 |
| Alberta | 63 | 59 | 65 | 67 |
| British Columbia | 46 | 47 | 44 | 45 |
| 339 Miscellaneous manufacturing | | | | |
| Newfoundland and Labrador | 1 | 1 | 1 | 1 |
| Quebec | 162 | 124 | 125 | 126 |
| Ontario | 174 | 200 | 218 | 216 |
| Manitoba | 6 | 10 | 7 | 7 |
| Saskatchewan | 4 | 4 | 4 | 4 |
| Alberta | 38 | 31 | 33 | 34 |
| British Columbia | 56 | 64 | 50 | 46 |

Table 10

Shipments by major group and province, unadjusted - continued

| | Previous year | | Year-to-date | | Annual | |
|---|----------------|--------------|-----------------------|---------|-----------------------|---------|
| | August 2002 | July 2002 | % Change from 2002 | 2003 | % Change from 2001 | 2002 |
| | \$ millions | | | | | |
| Total | | | | | | |
| Newfoundland and Labrador | 216 | 251 | 5.3 | 1,581 | 1.3 | 2,234 |
| Prince Edward Island | 132 | 117 | -0.2 | 859 | 9.5 | 1,316 |
| Nova Scotia | 791 | 733 | 4.7 | 5,812 | 1.3 | 8,646 |
| New Brunswick | 1,192 | 1,129 | 5.0 | 8,689 | 3.1 | 12,632 |
| Quebec | 10,600 | 9,474 | -1.8 | 78,580 | 0.9 | 122,059 |
| Ontario | 23,931 | 20,146 | -1.2 | 181,712 | 3.4 | 277,581 |
| Manitoba | 966 | 940 | 0.8 | 7,686 | 0.6 | 11,538 |
| Saskatchewan | 616 | 594 | 2.5 | 4,989 | 1.3 | 7,239 |
| Alberta | 3,619 | 3,450 | 7.7 | 28,508 | -3.4 | 40,966 |
| British Columbia | 3,043 | 3,046 | -3.0 | 22,331 | 0.4 | 34,236 |
| 311 Food manufacturing | | | | | | |
| Newfoundland and Labrador | 101 | 134 | -11.3 | 572 | 10.3 | 891 |
| Prince Edward Island | 99 | 83 | -1.9 | 605 | 8.0 | 952 |
| Nova Scotia | 211 | 194 | 1.1 | 1,419 | 2.2 | 2,234 |
| New Brunswick | 202 | 209 | -11.6 | 1,202 | 4.6 | 2,004 |
| Quebec | 1,140 | 1,108 | 4.7 | 9,194 | 1.4 | 13,573 |
| Ontario | 2,121 | 2,081 | 1.4 | 16,615 | -0.1 | 25,085 |
| Manitoba | 265 | 252 | -0.9 | 1,977 | 4.3 | 3,023 |
| Saskatchewan | 161 | 151 | 5.3 | 1,238 | 3.3 | 1,825 |
| Alberta | 789 | 796 | -1.6 | 5,920 | -1.0 | 9,055 |
| British Columbia | 387 | 383 | 4.9 | 2,943 | 3.4 | 4,270 |
| 312 Beverage and tobacco product manufacturing | | | | | | |
| Nova Scotia | 23 | 26 | 14.2 | 162 | 1.5 | 213 |
| Quebec | 382 | 385 | 2.1 | 2,775 | 5.7 | 4,093 |
| Ontario | 556 | 600 | 2.8 | 4,358 | 2.6 | 6,514 |
| Saskatchewan | 12 | 13 | -44.6 | 42 | -7.8 | 92 |
| British Columbia | 102 | 107 | 4.9 | 680 | 9.1 | 990 |
| 313 Textile mills | | | | | | |
| Quebec | 179 | 132 | -11.0 | 1,239 | -2.6 | 2,069 |
| Ontario | 74 | 70 | -14.2 | 539 | -5.3 | 912 |
| 314 Textile product mills | | | | | | |
| Quebec | 90 | 79 | -7.3 | 626 | -2.1 | 1,020 |
| Ontario | 102 | 91 | -10.0 | 698 | 3.8 | 1,138 |
| Alberta | 2 | 2 | 9.1 | 20 | -14.4 | 28 |
| British Columbia | 13 | 14 | -31.7 | 69 | 4.0 | 153 |
| 315 Clothing manufacturing | | | | | | |
| Quebec | 388 | 301 | -6.6 | 2,428 | -7.4 | 3,937 |
| Ontario | 166 | 164 | -15.0 | 1,101 | 6.6 | 2,020 |
| Manitoba | 44 | 35 | -2.3 | 215 | 13.1 | 376 |
| Saskatchewan | 2 | 2 | 17.6 | 14 | -5.6 | 22 |
| Alberta | 7 | 8 | -7.7 | 54 | -6.8 | 89 |
| British Columbia | 25 | 25 | 1.7 | 176 | -15.8 | 263 |
| 316 Leather and allied product manufacturing | | | | | | |
| Quebec | 65 | 28 | -11.8 | 221 | -18.8 | 430 |
| Ontario | 20 | 15 | -20.1 | 111 | 11.9 | 225 |
| 321 Wood product manufacturing | | | | | | |
| Nova Scotia | 45 | 43 | 1.3 | 359 | 10.1 | 530 |
| Quebec | 654 | 523 | 0.2 | 5,098 | 11.9 | 7,637 |
| Ontario | 496 | 484 | -4.3 | 3,644 | 7.7 | 5,622 |
| Manitoba | 43 | 45 | 2.6 | 338 | -13.5 | 501 |
| Saskatchewan | 36 | 34 | 27.5 | 335 | 39.0 | 430 |
| Alberta | 184 | 197 | -1.3 | 1,518 | 2.8 | 2,265 |
| British Columbia | 943 | 919 | -16.9 | 6,291 | 4.8 | 10,830 |

Table 10

Shipments by major group and province, unadjusted - continued

| | Previous year | | Year-to-date | | Annual | |
|---|----------------|--------------|-----------------------|--------|-----------------------|--------|
| | August 2002 | July 2002 | % Change from 2002 | 2003 | % Change from 2001 | 2002 |
| | \$ millions | | | | | |
| 322 Paper manufacturing | | | | | | |
| Nova Scotia | 84 | 79 | 8.2 | 604 | -17.9 | 881 |
| Quebec | 1,006 | 961 | -3.7 | 7,367 | -2.7 | 11,729 |
| Ontario | 861 | 858 | -3.9 | 6,471 | -3.6 | 10,091 |
| Alberta | 140 | 131 | 3.2 | 1,036 | 4.0 | 1,553 |
| British Columbia | 422 | 411 | 8.2 | 3,390 | -11.7 | 4,790 |
| 323 Printing and related support activities | | | | | | |
| Quebec | 222 | 213 | 1.4 | 1,827 | -11.3 | 2,749 |
| Ontario | 433 | 415 | -2.5 | 3,426 | 2.0 | 5,351 |
| Manitoba | 34 | 34 | -3.9 | 273 | -6.4 | 436 |
| Saskatchewan | 10 | 9 | 10.3 | 73 | 6.1 | 106 |
| Alberta | 49 | 44 | -5.2 | 357 | -5.4 | 574 |
| British Columbia | 57 | 54 | -14.2 | 358 | -10.7 | 608 |
| 324 Petroleum and coal products manufacturing | | | | | | |
| Quebec | 629 | 593 | 26.8 | 5,247 | 6.7 | 6,845 |
| Ontario | 900 | 845 | 17.6 | 7,168 | -2.9 | 9,861 |
| Alberta | 768 | 660 | 24.2 | 5,753 | 1.0 | 7,491 |
| British Columbia | 66 | 71 | 0.3 | 516 | -4.8 | 754 |
| 325 Chemical manufacturing | | | | | | |
| Quebec | 751 | 738 | 0.9 | 5,841 | 6.8 | 8,711 |
| Ontario | 1,711 | 1,685 | 6.6 | 14,109 | 7.8 | 20,076 |
| Manitoba | 49 | 38 | 23.2 | 490 | -12.6 | 616 |
| Saskatchewan | 19 | 21 | 19.5 | 523 | -10.8 | 562 |
| Alberta | 556 | 456 | 16.7 | 4,789 | -6.7 | 6,456 |
| British Columbia | 100 | 96 | 19.2 | 843 | 7.1 | 1,076 |
| 326 Plastics and rubber products manufacturing | | | | | | |
| Nova Scotia | 100 | 92 | -8.0 | 699 | 6.9 | 1,141 |
| Quebec | 469 | 396 | 4.9 | 3,618 | 10.7 | 5,208 |
| Ontario | 1,220 | 1,119 | -0.7 | 9,282 | 6.9 | 13,805 |
| Manitoba | 41 | 42 | 1.3 | 346 | 7.5 | 508 |
| Saskatchewan | 9 | 7 | 13.8 | 74 | 5.4 | 98 |
| Alberta | 99 | 92 | 3.8 | 702 | -4.0 | 1,023 |
| British Columbia | 91 | 99 | 9.6 | 751 | -3.1 | 1,008 |
| 327 Non-metallic mineral product manufacturing | | | | | | |
| Nova Scotia | 17 | 19 | -1.5 | 102 | 1.2 | 162 |
| Quebec | 303 | 247 | 5.4 | 1,844 | 10.8 | 2,701 |
| Ontario | 503 | 474 | 7.2 | 3,577 | 4.9 | 5,264 |
| Saskatchewan | 13 | 16 | -8.6 | 70 | -8.2 | 113 |
| Alberta | 153 | 164 | 0.2 | 956 | 24.1 | 1,510 |
| British Columbia | 137 | 137 | 6.7 | 952 | 17.0 | 1,357 |
| 331 Primary metal manufacturing | | | | | | |
| Quebec | 1,071 | 1,036 | -1.9 | 8,349 | 7.8 | 12,712 |
| Ontario | 1,312 | 1,242 | 4.1 | 10,931 | 11.9 | 16,003 |
| Alberta | 83 | 76 | 15.5 | 674 | -10.7 | 896 |
| 332 Fabricated metal product manufacturing | | | | | | |
| Newfoundland and Labrador | 10 | 8 | 78.2 | 99 | -15.5 | 88 |
| Prince Edward Island | 2 | 3 | 1.0 | 16 | -1.5 | 25 |
| Nova Scotia | 23 | 20 | 20.0 | 191 | 17.2 | 264 |
| New Brunswick | 24 | 23 | -4.3 | 169 | -5.7 | 268 |
| Quebec | 489 | 395 | -1.2 | 3,418 | 1.8 | 5,329 |
| Ontario | 1,424 | 1,269 | -3.8 | 10,403 | 4.7 | 16,165 |
| Manitoba | 64 | 62 | 20.1 | 543 | -2.0 | 707 |
| Saskatchewan | 39 | 42 | 6.0 | 295 | -6.5 | 416 |
| Alberta | 219 | 209 | 26.7 | 2,099 | -2.7 | 2,637 |
| British Columbia | 156 | 153 | -2.4 | 1,066 | 2.2 | 1,609 |

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

| | Previous year | | Year-to-date | | Annual | |
|--|----------------|--------------|-----------------------|--------|-----------------------|---------|
| | August 2002 | July 2002 | % Change from 2002 | 2003 | % Change from 2001 | 2002 |
| | \$ millions | | | | | |
| 333 Machinery manufacturing | | | | | | |
| Quebec | 349 | 319 | -4.4 | 2,839 | 0.2 | 4,587 |
| Ontario | 1,022 | 970 | -8.0 | 7,862 | 4.1 | 12,943 |
| Manitoba | 85 | 81 | -11.7 | 652 | 9.4 | 1,042 |
| Saskatchewan | 53 | 44 | -12.6 | 404 | 7.4 | 662 |
| Alberta | 214 | 228 | -2.4 | 1,869 | -14.5 | 2,872 |
| British Columbia | 138 | 123 | 12.5 | 1,112 | 8.7 | 1,594 |
| 334 Computer and electronic product manufacturing | | | | | | |
| Quebec | 488 | 493 | -19.6 | 3,448 | -18.1 | 6,588 |
| Ontario | 955 | 949 | -16.1 | 6,773 | -13.9 | 11,900 |
| Saskatchewan | 9 | 7 | 5.1 | 65 | 12.7 | 94 |
| Alberta | 105 | 120 | -29.1 | 629 | -29.9 | 1,392 |
| British Columbia | 74 | 78 | -4.2 | 519 | -17.7 | 879 |
| 335 Electrical equipment, appliance and component manufacturing | | | | | | |
| Quebec | 259 | 230 | -1.0 | 1,934 | 10.6 | 2,930 |
| Ontario | 398 | 405 | -8.0 | 3,203 | -12.2 | 5,210 |
| Manitoba | 13 | 10 | -22.8 | 94 | -14.7 | 183 |
| Saskatchewan | 15 | 19 | -39.7 | 95 | -45.0 | 208 |
| Alberta | 27 | 27 | 30.0 | 270 | 9.5 | 328 |
| British Columbia | 29 | 26 | 6.5 | 241 | -32.9 | 345 |
| 336 Transportation equipment manufacturing | | | | | | |
| Nova Scotia | 68 | 61 | -33.1 | 432 | 29.7 | 862 |
| Quebec | 1,226 | 919 | -14.5 | 8,106 | -7.0 | 14,134 |
| Ontario | 8,866 | 5,670 | -2.6 | 65,235 | 6.5 | 100,483 |
| Manitoba | 110 | 119 | 5.1 | 1,122 | 0.2 | 1,603 |
| Saskatchewan | 25 | 31 | -11.5 | 212 | 21.7 | 349 |
| Alberta | 51 | 56 | 11.8 | 583 | 0.5 | 785 |
| British Columbia | 103 | 139 | -18.8 | 762 | -4.9 | 1,283 |
| 337 Furniture and related product manufacturing | | | | | | |
| Quebec | 292 | 242 | -2.3 | 2,150 | 11.4 | 3,293 |
| Ontario | 606 | 542 | 3.8 | 4,564 | -2.2 | 6,629 |
| Manitoba | 64 | 63 | -2.5 | 477 | 11.3 | 743 |
| Saskatchewan | 7 | 9 | -12.1 | 55 | 3.3 | 89 |
| Alberta | 68 | 69 | -5.9 | 514 | -3.9 | 838 |
| British Columbia | 51 | 48 | 5.9 | 361 | 14.4 | 525 |
| 339 Miscellaneous manufacturing | | | | | | |
| Newfoundland and Labrador | 2 | 2 | -39.7 | 9 | 22.1 | 18 |
| Quebec | 148 | 135 | -8.0 | 1,010 | 11.3 | 1,785 |
| Ontario | 185 | 199 | 7.0 | 1,641 | 6.8 | 2,284 |
| Manitoba | 8 | 12 | -16.0 | 60 | -11.0 | 107 |
| Saskatchewan | 4 | 4 | 8.1 | 31 | -2.0 | 44 |
| Alberta | 38 | 37 | -6.3 | 261 | 7.8 | 440 |
| British Columbia | 49 | 53 | 6.2 | 403 | 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 |
|----------------|-----------|--------------------------|------------------------------|------------------------------|-----------------|
| % | | | | | |
| August 2002 | 0.53 | 0.88 | 0.65 | 1.36 | 1.42 |
| September 2002 | 0.53 | 0.90 | 0.73 | 1.40 | 1.52 |
| October 2002 | 0.53 | 0.93 | 0.72 | 1.33 | 1.86 |
| 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 | 0.55 | 0.97 | 0.69 | 1.36 | 1.54 |
| July 2003 | 0.61 | 1.03 | 0.72 | 1.45 | 1.51 |
| August 2003 | 0.59 | 1.09 | 0.73 | 1.43 | 1.65 |

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 | 92.18 | 4.54 | 3.28 |
| Raw Materials | 78.29 | 18.54 | 3.16 |
| Goods in Process | 75.39 | 11.02 | 13.59 |
| Finished Products | 78.30 | 15.37 | 6.33 |
| Unfilled Orders | 86.32 | 6.98 | 6.70 |

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

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

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

// / / / / / -

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 | |
| <p>Omit cents – Omettre les cents</p> <p>a) Goods of own manufacture Produits de propre fabrication 01</p> <p>b) Goods purchased for resale Produits achetés pour la revente 02</p> <p>TOTAL 03</p> | | <p>a) Raw materials, fuel, supplies, Matières premières, combustible, fournitures 04</p> <p>b) Goods in Process (gross value) Produits en cours (valeur brute) 05</p> <p>c) Finished products of own manufacture Produits finis de propre fabrication 06</p> <p>d) Goods purchased for resale Produits achetés pour la revente 07</p> <p>TOTAL 08</p> | |
| 3. Orders – Commandes | | 4. Period – Période | |
| <p>Unfilled orders at month end Commandes non remplies à la fin du mois 09</p> | | <p>Closing date of accounting period covered Date de clôture de la période comptable 10</p> <p>Month – Mois Day – Jour</p> | |
| 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 | | | |

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
