



# The Daily

Statistics Canada

**Monday, November 21, 1994**

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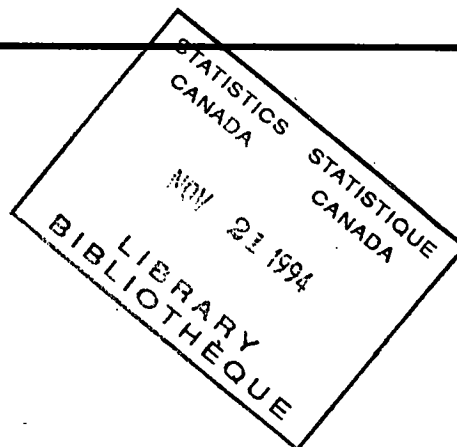
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Over the past 15 years, small Canadian manufacturing plants, particularly those with fewer than 20 employees, have had consistently higher rates of job growth than larger firms. They also did far better at creating jobs than similar plants in the United States.

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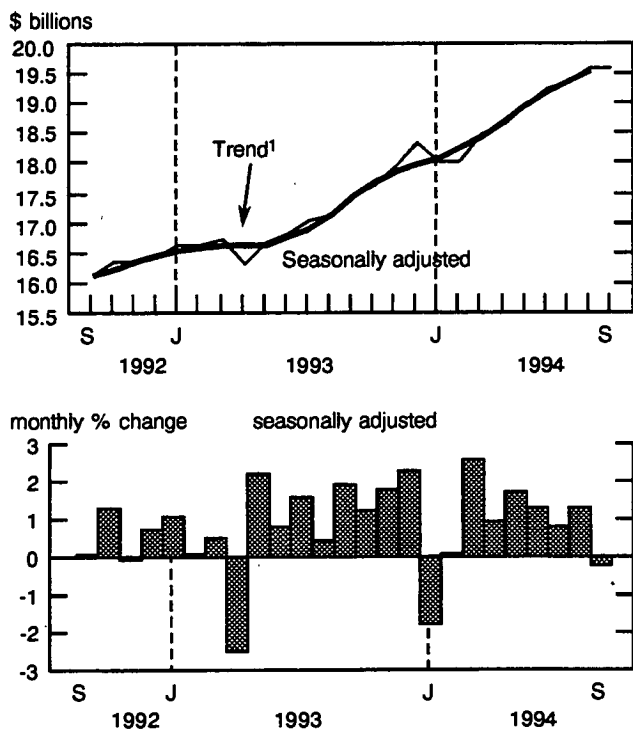
## MAJOR RELEASES

### Wholesale trade

September 1994 (preliminary)

After seven consecutive monthly gains, sales in September were relatively unchanged from August, dropping 0.2% to \$19.6 billion. Although wholesalers' total sales eased in September, expansion continued for suppliers of manufacturers.

#### Wholesale merchants' sales



<sup>1</sup> The short-term trend represents a weighted average of data.

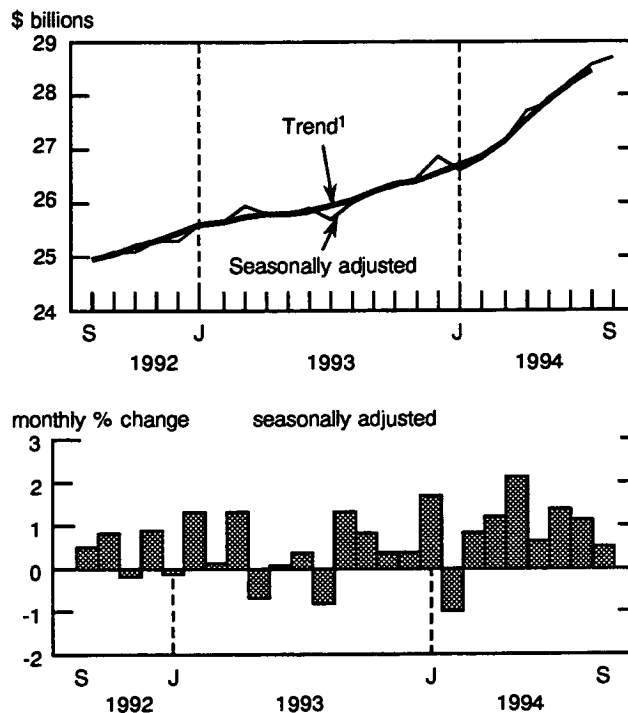
In September four of nine major groups, accounting for half of all sales, recorded increases. Posting the strongest month-over-month performances were distributors of non-farm machinery and equipment (+1.2%) and wholesalers of other products (+1.7%) —includes agricultural and industrial chemicals, books, newspaper and other products. Offsetting the growth were declines in food, beverage, drug and tobacco products, which represent about 24% of sales.

Business spending on machinery and equipment continues to support the strong growth of the wholesale sector in 1994. Typically accounting for one-quarter of all sales, these suppliers provide essential capital goods used in production. Between January and September, sales have been increasing an average of 1% a month, suggesting that businesses are modernizing production processes. Increased sales of supplies to manufacturers, such as chemicals sold by wholesalers of other products, have complemented this demand for new equipment.

#### Inventory inches up

Inventories (\$28.7 billion in September) are slightly higher than in August (+0.5%). The buildup was mostly attributable to increases in the food (+1.9%), farm machinery (+2.7%) and other (industrial) machinery (+0.6%) sectors. The inventories to sales ratio at the end of September increased to 1.46:1 from 1.45:1 at the end of August.

#### Wholesale merchants' inventories



<sup>1</sup> The short-term trend represents a weighted average of data.

Available on CANSIM: matrices 59, 61, 648 and 649.

For further information, contact Catherine Mamay (613-951-9683) or Gilles Simard (613-951-3541), Industry Division. □

The September 1994 issue of *Wholesale trade* (63-008, \$16/\$160) will be available the second week of December. See "How to order publications".

## Wholesale merchants' sales and inventories

	Sept. 1993	June 1994 <sup>r</sup>	July 1994 <sup>r</sup>	Aug. 1994 <sup>r</sup>	Sept. 1994 <sup>p</sup>	Aug. 1994 <sup>r</sup> to Sept. 1994 <sup>p</sup>	Sept. 1993 to Sept. 1994
seasonally adjusted							
	\$ millions					% change	
<b>Sales</b>							
<b>Trade group</b>							
Food, beverage, drug and tobacco products	4,460	4,640	4,705	4,702	4,611	-1.9	3.4
Apparel and dry goods	459	510	479	466	464	-0.6	0.9
Household goods	586	619	603	640	605	-5.5	3.2
Motor vehicles, parts and accessories	1,906	2,158	2,178	2,252	2,249	-0.2	18.0
Metals, hardware, plumbing and heating equipment and supplies	1,249	1,471	1,506	1,560	1,564	0.3	25.2
Lumber and building materials	1,635	1,728	1,750	1,789	1,756	-1.8	7.4
Farm machinery, equipment and supplies	390	423	454	463	476	2.9	22.0
Other machinery, equipment and supplies	3,984	4,461	4,534	4,544	4,599	1.2	15.4
Other products	2,738	3,203	3,153	3,195	3,250	1.7	18.7
<b>Total, all trades</b>	<b>17,408</b>	<b>19,212</b>	<b>19,361</b>	<b>19,611</b>	<b>19,573</b>	<b>-0.2</b>	<b>12.4</b>
<b>Provinces and territories</b>							
Newfoundland	173	185	191	179	175	-2.4	0.7
Prince Edward Island	37	46	48	47	47	0.9	28.2
Nova Scotia	386	406	409	413	402	-2.7	3.9
New Brunswick	237	277	264	266	268	0.4	13.0
Quebec	4,123	4,363	4,377	4,357	4,302	-1.3	4.3
Ontario	7,165	8,027	8,147	8,341	8,355	0.2	16.6
Manitoba	559	642	629	651	661	1.6	18.3
Saskatchewan	520	607	578	600	613	2.1	17.8
Alberta	1,636	1,820	1,859	1,885	1,918	1.7	17.2
British Columbia	2,548	2,816	2,834	2,849	2,813	-1.3	10.4
Yukon and Northwest Territories	23	22	25	22	19	-10.0	-14.9
<b>Inventories</b>							
<b>Trade group</b>							
Food, beverage, drug and tobacco products	3,271	3,520	3,589	3,651	3,719	1.9	13.7
Apparel and dry goods	1,071	1,044	1,088	1,127	1,111	-1.4	3.8
Household goods	1,344	1,270	1,279	1,279	1,289	0.8	-4.1
Motor vehicles, parts and accessories	3,624	3,626	3,696	3,666	3,672	0.1	1.3
Metals, hardware, plumbing and heating equipment and supplies	2,261	2,533	2,549	2,556	2,570	0.5	13.6
Lumber and building materials	2,722	2,833	2,892	2,894	2,883	-0.4	5.9
Farm machinery, equipment and supplies	1,201	1,476	1,515	1,559	1,601	2.7	33.3
Other machinery, equipment and supplies	7,029	7,693	7,815	7,981	8,026	0.6	14.2
Other products	3,464	3,828	3,798	3,810	3,803	-0.2	9.8
<b>Total, all trades</b>	<b>25,989</b>	<b>27,823</b>	<b>28,223</b>	<b>28,522</b>	<b>28,674</b>	<b>0.5</b>	<b>10.3</b>

<sup>p</sup> Preliminary figures.<sup>r</sup> Revised figures.

## Wholesale merchants' sales and inventories

	September 1993	August 1994 <sup>r</sup>	September 1994 <sup>p</sup>	September 1993 to September 1994 <sup>p</sup>
	unadjusted			
	\$ millions			% change
<b>Sales</b>				
<b>Trade group</b>				
Food, beverage, drug and tobacco products	4,661	4,884	4,785	2.7
Apparel and dry goods	561	630	577	2.9
Household goods	699	682	736	5.3
Motor vehicles, parts and accessories	2,056	2,262	2,403	16.9
Metals, hardware, plumbing and heating equipment and supplies	1,336	1,674	1,691	26.5
Lumber and building materials	1,874	2,080	2,011	7.3
Farm machinery, equipment and supplies	407	534	484	19.0
Other machinery, equipment and supplies	4,133	4,418	4,827	16.8
Other products	2,791	3,090	3,315	18.8
<b>Total, all trades</b>	<b>18,517</b>	<b>20,254</b>	<b>20,829</b>	<b>12.5</b>
<b>Provinces and territories</b>				
Newfoundland	196	196	196	-0.1
Prince Edward Island	39	49	48	23.3
Nova Scotia	405	430	429	6.0
New Brunswick	255	290	293	14.8
Quebec	4,588	4,667	4,780	4.2
Ontario	7,575	8,470	8,839	16.7
Manitoba	578	671	695	20.2
Saskatchewan	546	650	658	20.5
Alberta	1,671	1,925	1,974	18.1
British Columbia	2,637	2,884	2,896	9.8
Yukon and Northwest Territories	27	24	23	-16.9
<b>Inventories</b>				
<b>Trade group</b>				
Food, beverage, drug and tobacco products	3,317	3,694	3,793	14.3
Apparel and dry goods	1,057	1,179	1,109	5.0
Household goods	1,344	1,338	1,343	-0.1
Motor vehicles, parts and accessories	3,592	3,608	3,631	1.1
Metals, hardware, plumbing and heating equipment and supplies	2,275	2,569	2,565	12.8
Lumber and building materials	2,638	2,812	2,761	4.7
Farm machinery, equipment and supplies	1,152	1,562	1,563	35.7
Other machinery, equipment and supplies	6,945	8,047	7,971	14.8
Other products	3,427	3,714	3,762	9.8
<b>Total, all trades</b>	<b>25,747</b>	<b>28,524</b>	<b>28,499</b>	<b>10.7</b>

<sup>p</sup> Preliminary figures.<sup>r</sup> Revised figures.

## Employment generation by small firms and manufacturers

1970-1992

Throughout the last decade, claims have been made about the amount of job creation associated with small plants and firms. It has been argued that small plants have created a disproportionate number of new jobs. Recently this claim has been challenged in the United States. It has been argued that the importance of small plants is a statistical illusion due to measurement error.

Small companies, particularly those with fewer than 20 employees, were a dynamic force in job creation in Canada over the past 15 years. Smaller companies consistently had higher rates of job growth than larger companies, they also had larger rates of job loss. More important, job growth surpassed job losses far more among small Canadian companies than among companies with considerably more employees.

At the same time, small Canadian manufacturing plants were far better at creating jobs than were similar plants in the United States. Over the two decades, Canadian plants had consistently higher rates of job gains and job losses, and higher net employment growth, than did small U.S. manufacturing plants.

### Small Canadian companies lead the way in job creation

Smaller Canadian companies lose jobs at a higher rate than larger firms. But they create jobs at a higher rate as well. Among the smallest Canadian companies, those with fewer than 20 employees, the annual rate of job creation over the last two decades (26%) has far exceeded the annual rate of job losses (18%), yielding an 8% annual growth rate in net employment.

### Job creation and job loss rates by firm size\*

Annual weighted average from 1978 to 1992

Firm size	Job gain	Job loss	Net change**
Number of employees	%		
0 to 19	26.5	18.4	8.0
20 to 49	14.9	14.7	0.2
50 to 99	13.0	13.8	-0.8
100 to 499	11.1	11.9	-0.8
500 +	5.9	7.1	-1.2

\*See note to users box for definitions.

\*\*Figures may not add due to rounding.

### Note to users

This release is based on two reports that investigate differences in job creation 1) between large and small companies in the entire economy and 2) between large and small plants in the manufacturing sector. The two reports examine the performance from 1970 to 1992 of plants and companies of various sizes. They also compare job creation among Canadian manufacturing plants with those in the United States.

### Definitions

**Job creation** is the increase in employment between two years in plants or companies where employment is growing.

**Job loss** is the decline in employment between two years in plants or companies where employment is falling. Net employment growth is the difference between job creation and job loss.

**Rates of job change** are calculated by dividing job change (job growth or job loss) by average company size. To test the robustness of the results, different methods were used to calculate average company size. Basically, the various methods average the employment size for different periods, in order to remove random movements in employment that occur over short periods.

**Job turnover** occurs as workers move from one plant to another as a result of job gain and job loss in different plants.

By comparison, on average between 1978 and 1992, companies with more than 50 employees all had negative rates of net employment growth—that is, they lost more jobs than they created. Job creation is found in some large firms just as in some small firms. But, in the larger size classes, job losses in declining firms outstrip job gains in expanding firms, so that net employment change is generally negative.

These results have given rise to the contention that small companies are the dynamos of change in the Canadian economy, and they have been used to stress the importance of small firms. These results consistently emerge for alternate estimation methods.

This disproportionate role of small firms in employment expansion is greatest in the primary, manufacturing and construction industries, where net employment expansion in large firms was negative (around -3% per year). Among the small firm sector, employment was positive (+3% to +10%). In the faster growing consumer and business services sectors, however, the difference was not as great, primarily because large firms in these sectors contributed more to employment expansion. Net employment growth among large firms in these industries was positive (+1% to +2% annually on average), but not as great as among small firms (in the +4% to +10% range).

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### Small manufacturing plants are dynamos of change

In manufacturing, the small plants—those with fewer than 100 employees—also dominated job creation. In the economy as a whole, job creation in small manufacturing plants exceeded job loss, resulting in net employment gains in the 2% to 7% range; this compares with an employment decline of around 0.5% annually in the large plant sector over the 1970 to 1990 period. The importance of small manufacturing plants can also be evidenced by their increased share of employment. Plants with fewer than 100 employees in the manufacturing sector accounted for a growing share of total employment throughout the two decades, but the pace picked up during the late 1980s. This shift occurred because of a rapid expansion of new, smaller plants and because of a decline in larger plants.

There are several reasons for this. One is changing technology, which allows for shorter product lines and which permits smaller firms and plants to compete with larger firms that previously enjoyed advantages from economies of scale. The expansion may also be related to labour cost advantages. There is evidence that new firms are paying lower wages than incumbents. In addition, the expansion of smaller firms is partly a result of outsourcing—larger firms subcontracting out a portion of their parts or fabrication requirements.

### Canadian small plants are more vibrant than American small plants in manufacturing

When all plants in manufacturing are considered, Canada and the United States show remarkably similar patterns of job growth and job loss. However, when this change is broken into small- and large-plant job change, differences emerge. Small plants in Canada appear to be a more dynamic group than their U.S. counterparts.

Canadian small plants with fewer than 100 employees had consistently higher rates of job gain and job loss from 1970 to 1990. They also had higher net employment growth than their counterparts in the United States. One reason may be that Canada had a larger percentage of employment in plants with fewer than 250 employees. In comparison, the United States had a larger percentage of employment in plants with more than 2,500 employees.

Even so, Canadian small plants still recorded the largest total job turnover—a combination of both gross job creation and job loss.

The two reports, *Employment generation by small producers in the Canadian manufacturing sector* (No. 70) and *Have small firms created a disproportionate share of new jobs in Canada?* (No. 71), are available today. To obtain copies, contact Valerie Thibault (613-951-1804).

For further information on this release, contact John Baldwin (613-951-8588), Micro-Economics Analysis Division, or Garnett Picot (613-951-8214), Business and Labour Market Analysis Division. ■

## OTHER RELEASES

### University enrolment 1994-95 (preliminary)

After two decades of steady growth, part-time university enrolment in the fall of 1994 decreased for the second consecutive year. Full-time enrolment rose only moderately.

This fall, 284,500 students are enrolled part-time, a drop of 6%. The decline in part-time registrations occurred at both the undergraduate and graduate levels in all provinces and most institutions. Current labour market conditions and increased tuition fees may have contributed to the decrease.

It is not yet clear whether the reduction in part-time enrolment observed during the past two years is a temporary phenomenon or the beginning of a trend.

Growth in full-time university enrolment appears to be levelling off. This fall, 578,600 students are registered in full-time studies compared to 573,300 in 1993.

The number of full-time undergraduates increased by only 1% to 504,098. At the same time, the number of full-time graduate students rose to 74,497, an increase of only 200. Both increases are well below the average annual growth of the past two decades.

### Undergraduate enrolment in universities Fall, 1994-95

	Full-time	Part-time
Newfoundland	13,174	2,823
Prince Edward Island	2,489	601
Nova Scotia	27,989	5,791
New Brunswick	18,356	4,679
Quebec	112,610	95,968
Ontario	203,403	82,346
Manitoba	21,246	11,364
Saskatchewan	21,429	6,602
Alberta	45,853	14,178
British Columbia	37,613	20,128
<b>Canada</b>	<b>504,098</b>	<b>244,584</b>
% change from previous year	1.02	-5.94

Over the last decade, there has been a decrease of 19% in the population aged 18 to 24 years—the age group in which most university students are found. Rather than the anticipated decreases, enrolment in this age group increased 25%.

### Graduate enrolment in universities Fall, 1994-95

	Full-time	Part-time
Newfoundland	952	474
Prince Edward Island	21	1
Nova Scotia	2,431	1,364
New Brunswick	1,038	733
Quebec	22,841	19,219
Ontario	27,574	11,066
Manitoba	2,631	1,244
Saskatchewan	1,857	1,200
Alberta	5,631	2,141
British Columbia	9,547	2,498
<b>Canada</b>	<b>74,479</b>	<b>39,940</b>
% change from previous year	0.24	-5.94

Preliminary data on the number of students in universities by level and type of attendance are obtained prior to the regular annual survey of enrolments. These preliminary figures traditionally have been close estimates of final enrolment counts.

For further information, contact Mariem Martinson (613-951-1526) or Mongi Mouelhi, (613-951-1537), Postsecondary Education Section, Education, Culture and Tourism Division. ■

### Sales of natural gas September 1994 (preliminary)

Natural gas sales in Canada totalled 3 482 million cubic metres in September, up 1.0% from September 1993. The increase was due to a 6.0% jump in sales to the industrial sector (including direct), largely the result of higher demand by electric utilities and the chemical industry. Sales to both the residential and commercial sectors declined from September 1993.

Year-to-date sales were up 2.8% from the same period in 1993. Sales to the residential sector rose a strong 7.5%, due to unseasonably cold temperatures in January and February, and to continuing growth in the number of customers. Commercial sales increased 3.2%, while the industrial sector (including direct sales) were up 0.7% from last year.



**Sales of natural gas**

	September 1994 <sup>P</sup>	September 1993 to September 1994
	thousands of cubic metres	% change
<b>Total</b>	<b>3 481 924</b>	<b>1.0</b>
Residential	444 010	-14.5
Commercial	367 714	-9.8
Industrial	1 986 826	6.0
Direct	683 374	
	January to September 1994 <sup>P</sup>	Jan.- Sept. 1993 to Jan.- Sept. 1994
	thousands of cubic metres	% change
<b>Total</b>	<b>44 183 286</b>	<b>2.8</b>
Residential	11 175 618	7.5
Commercial	8 116 057	3.2
Industrial	18 658 321	0.7
Direct	6 429 263	

<sup>P</sup> Preliminary figures.**Available on CANSIM: matrices 1052-1055.**

The September 1994 issue of *Gas utilities* (55-002, \$14/\$140) will be available the third week of December. See "How to order publications".

For further information on this release, contact Gary Smalldridge (613-951-3567), Energy Section, Industry Division.

**Civil aviation statistics**

Third quarter 1994

Operating income for Air Canada and Canadian Airlines International Ltd. increased to \$253 million in the third quarter of 1994, compared to \$163 million for the same quarter of 1993. A basic income of \$183 million was reported in the third quarter of 1994 (basic

income or loss is measured by combining the operating income—before capital gains, miscellaneous items and tax—with interest expenses). Although these two carriers always produce a basic income in the third quarter, the 1994 value is the largest ever.

In constant dollars (1986 = 100), the basic income for the third quarter of 1994 was \$140 million. This has been exceeded only four times in the last 20 years (1979, 1980, 1986 and 1987). The highest reported value of basic income was \$181 million in the third quarter of 1980. The average basic income for the third quarter over the last twenty years is \$96 million. In 1991 and 1992, average basic income slipped to \$7 million and \$1 million, respectively.

The last time these carriers ended a complete year with a basic income (as opposed to a loss) was 1988, when \$23 million was reported. After three quarters of 1988, they had a basic income of \$61 million. After three quarters of 1994, they have a basic income of \$31 million.

**Available on CANSIM: matrix 385.**

Preliminary civil aviation data for the third quarter of 1994 are published in the December issue of *Aviation service bulletin* (51-004, \$10/\$99). See "How to order publications".

For further information on this release, contact Robert Lund (819-997-6188), Aviation Statistics Centre, Transportation Division. ■

**Tea, coffee and cocoa**

September 1994

Data on tea, coffee and cocoa for the third quarter of 1994 are now available.

**Available on CANSIM: matrix 188.**

The September 1994 issue of *Production and stocks of tea, coffee and cocoa* (32-025, \$8/\$32) will be available shortly. See "How to order publications".

For further information on this release, contact Peter Zylstra (613-951-3511), Industry Division. ■



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The Daily, November 21, 1994

## PUBLICATION RELEASED

### Non-metallic mineral products Industries, 1992.

Catalogue number 44-250

(Canada: \$38; United States: US\$46;  
other countries: US\$54).

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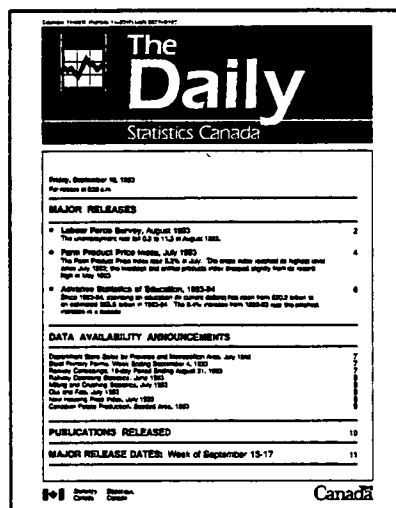
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