Catalogue 11-001E (Français 11-001F) ISSN 0827-0465

The Daily

Statistics Canada

Wednesday, May 24, 2000
For release at 8:30 a.m.

MAJOR RELEASES

OTHER RELEASES

PUBLICATIONS RELEASED

MAJOR RELEASES

Brain drain and brain gain: The migration of knowledge workers into and out of Canada

During the 1990s, Canada suffered a net loss of skilled workers to the United States in several key knowledge-based occupations, according to an analysis of the migration of knowledge workers into and out of Canada.

The magnitude of the loss was relatively small — about 0.1% of all taxfilers in 1996, and less than 1% of the stock of workers in any specific knowledge occupation.

Even so, the number of people leaving Canada for the United States and other countries grew steadily during the 1990s. In addition, these individuals tended to be better-educated than the population as a whole, and they were higher-income earners and individuals of prime working age.

While evidence indicates that Canada suffers from a brain drain to the United States, the issue is far more complex than first appears. Losses of highly skilled workers to the United States accelerated during the 1990s, but so too did the influx of highly skilled workers into Canada from abroad.

Canada gained four university graduates from abroad for every one it lost to the United States. As many immigrants entered Canada with a master's degree or doctorate as university graduates at all levels left for the United States.

Recent immigrant high-technology workers made an important contribution to meeting the rapidly growing demand in the high-technology sector. Immigrants in the 1990s accounted for about one-third of the increase in employment among computer engineers, systems analysts and computer programmers.

Brain drain: Canada losing segments of highly educated workforce

The movement of workers to the United States has not been large. However, evidence suggests that it has shifted toward more highly-skilled workers who are young, well-educated and well-paid.

Estimates place annual average emigration, both permanent and temporary, to the United States during the 1990s in a range of 22,000 to 35,000. This represented about 0.1% of the Canadian population, a lower rate than Canada has experienced historically.

Note to readers

This release is based on an article in the current edition of Education quarterly review, *available today.*

This article examines available empirical evidence about the brain drain — the loss of knowledge workers from Canada to the United States, and about the brain gain — the influx of knowledge workers into Canada from the rest of the world.

While the main points of this article have been in the public domain for some time, this study analyzes the most up-to-date data on the subject.

Nevertheless, evidence does suggest that emigration to the United States increased steadily during the 1990s.

In addition, individuals who moved to the United States were better educated than both the Canadian-born population and recent immigrants to Canada. Forty-nine percent of migrants to the United States between 1994 and 1999 aged 16 and over had a university degree. This compares with 12% among Canadian-born people and 21% among immigrants who arrived during the 1990s, according to the 1996 Census.

Those who moved also had higher incomes. Analysis of income tax data on taxfilers leaving Canada to all destinations showed that individuals earning more than $150,000 a year were seven times as likely to leave Canada as the average taxpayer. Those who had incomes between $100,000 and $150,000 were five times as likely to move.

Taxfilers who left Canada represented 0.9% of those reporting income of over $150,000, and close to 0.6% of those with incomes between $100,000 and $150,000.

In addition, according to taxfiler data, individuals who left in 1996 were disproportionately in the 25-to-44 age group — at entry and mid-career levels — compared with the population as a whole. This group comprised about two-thirds of all emigrants.

In 1996, 10 industries accounted for more than one-fifth of the nearly 27,000 taxfilers who left Canada. These industries included hospitals, university education, and elementary and secondary education. Also in the top 10 was a cluster of high-technology industries, including engineering, computer services, and communications and other electronic equipment. Movers appeared to be concentrated in knowledge-intensive industrial sectors.

In the public sector, outflows have been highest among people employed by hospitals, universities and other educational institutions, and government. In

the private sector, outflows have been largest in high technology, finance, and business services.

Brain gain: Influx of skilled workers accelerated during the '90s

While losses of highly skilled workers to the United States accelerated during the 1990s, so too did the influx of highly skilled workers into Canada.

Canada received far more university graduates than it has lost to the United States. Individuals who moved to the United States were more than twice as likely to hold a university degree than were immigrants to Canada. However, because of the greater overall number of immigrants, there were four times as many university graduates entering Canada from abroad as there were university degree holders of all levels leaving for the United States.

According to the 1996 Census, about 39,000 degree holders entered Canada annually, both permanently and temporarily, from 1990 to 1996, including 11,000 master's degree holders and PhDs. This compares with a total of about 10,000 university graduates at all levels leaving for the United States each year in the 1990s.

Knowledge-based occupations saw large increases in permanent immigration from the mid-1980s until 1997, the most recent year for which data are available. During this period, permanent immigration increased 15-fold among computer scientists, 10-fold among engineers, eight-fold among natural scientists, and four-fold among managerial workers. In 1997, the combined immigration of people intending to work as computer scientists, engineers, and natural scientists surpassed 20,000.

Recent immigrants were twice as likely as the Canadian-born population to be working as computer scientists and engineers, and in natural sciences.

Between 1991 and 1996, employment of computer engineers, systems analysts and computer programmers grew from 124,000 to 163,000. Immigrants who arrived since 1990 accounted for almost one-third of this increase of 39,000. Recent immigrants have clearly become an important component of high-technology employment expansion and they are contributing to meeting the high demand for workers in this sector.

An analysis of earnings showed an initial period of adjustment in which earnings of immigrant computer scientists were below those of their Canadian-born counterparts. However, the projected lifetime earnings of immigrant computer scientists were only 1% below those of their Canadian-born counterparts.

The May 2000 issue of *Education quarterly review* (81-003-XPB, $21/$68; 81-003-XIE, $16/$51) is now available. See *How to order publications*. The study on the brain drain is available as a free preview article of this publication on the *In depth* page of Statistics Canada's Web site (*www.statcan.ca*).

For more information, or to enquire about the concepts, methods or data quality of this release, contact John Zhao (613-951-1531; *john.zhao@statcan.ca*), Centre for Education Statistics. ■

Composite Index

April 2000

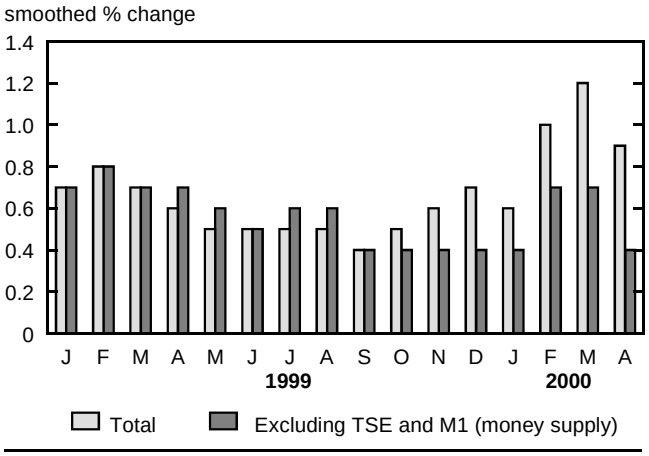
The growth of the leading indicator slowed from 1.2% in March to 0.9% in April, as household demand lost some of the vigour it had at the start of the year and as financial markets slowed. Four of the 10 components retreated, the most since September 1998; none did so in March.

The housing index was unable to sustain the growth realized in February and March, as both housing starts and existing home sales turned down in April. The high level of housing demand, however, continues to fuel gains for furniture and appliances. Meanwhile, durable goods sales posted their first decrease in a year and a half. The growth of demand for personal services has levelled off, judging by employment in these industries.

Stock markets faltered for the first time since October 1999. The financial market components had driven much of the acceleration in the overall composite index since that month; without them, growth would have been kept to an average of 0.5% since October 1999 and returned to 0.4% in April.

The trend of new orders for durable goods turned down for the first time in seven months. A drop in shipments and an increase in inventories pushed down the shipments/inventories ratio for the first time in several months. Manufacturers' optimism, however, was reflected in another large gain in the average work week. The outlook was especially bright for exports, as the U.S. leading index continued to plow ahead steadily.

Composite index excluding the financial components



Available on CANSIM: matrix 193.

For more information on the economy, see the May issue of *Canadian economic observer* (11-010-XPB, $23/$227), which will be available shortly. See *How to order publications*.

For more information, or to enquire about the concepts, methods or data quality of this release, contact Francine Roy (613-951-3627), Current Economic Analysis Group.

Composite Index

	Nov. 1999	Dec. 1999	Jan. 2000	Feb. 2000	March 2000	April 2000	Last month of data available
							% change
Composite leading indicator (1992=100)	**154.6**	**155.7**	**156.7**	**158.3**	**160.2**	**161.6**	**0.9**
Housing index (1992=100)[1]	99.1	98.1	97.7	98.3	100.2	99.9	-0.3
Business and personal services employment ('000)	2,349	2,358	2,365	2,372	2,379	2,385	0.3
TSE 300 stock price index (1975=1,000)	7,158	7,424	7,726	8,161	8,602	8,967	4.2
Money supply, M1 ($ millions, 1992)[2]	80,369	82,016	82,780	83,964	85,882	88,098	2.6
U.S. composite leading indicator (1992=100)[3]	107.9	107.9	108.0	108.2	108.3	108.4	0.1
Manufacturing							
Average work week (hours)	38.7	38.7	38.7	38.8	39.0	39.1	0.3
New orders, durables ($ millions, 1992)[4]	21,102	21,357	21,570	21,809	21,921	21,857	-0.3
Shipments/inventories of finished goods[4]	1.91	1.91	1.91	1.91	1.91	1.90	-0.01[5]
Retail trade							
Furniture and appliance sales ($ millions, 1992)[4]	1,406	1,418	1,416	1,421	1,435	1,443	0.6
Other durable goods sales ($ millions, 1992)[4]	6,552	6,574	6,601	6,650	6,688	6,665	-0.4
Unsmoothed composite	155.9	158.3	159.9	162.7	164.0	163.1	-0.5

1 *Composite index of housing starts (units) and house sales (multiple listing service).*
2 *Deflated by the Consumer Price Index for all items.*
3 *The figures in this row reflect data published in the month indicated, but the figures themselves refer to data for the month immediately preceding.*
4 *The figures in this row reflect data published in the month indicated, but the figures themselves refer to data for two preceding months.*
5 *Difference from previous month.*

■

OTHER RELEASES

Employment Insurance

March 2000 (preliminary)

The estimated number of Canadians who received regular Employment Insurance benefits in March decreased by 1.7% to 471,430. All provinces and territories, with the exception of the Northwest Territories and Nunavut, reported a month-to-month decline. Yukon (-9.3%) and Nova Scotia (-3.8%) fell farthest, and British Columbia and Alberta continued their downward trend, which began in mid-1999.

Compared with a year earlier, the number of beneficiaries receiving regular benefits in March 2000 was 8.5% lower at the Canada level.

Regular benefit payments decreased by 4.6% from February to March to $615.3 million. The number of claims received fell by 4.1% to 214,100.

Number of beneficiaries receiving regular benefits

	March 2000[p]	Feb. to March 2000	March 1999 to March 2000
	seasonally adjusted		
		% change	
Canada	**471,430**	**-1.7**	**-8.5**
Newfoundland	33,560	-1.7	-4.3
Prince Edward Island	7,960	-1.2	-4.2
Nova Scotia	27,610	-3.8	0.4
New Brunswick	31,710	-2.3	-8.2
Quebec	169,980	-0.5	-3.5
Ontario	95,420	-0.5	-4.9
Manitoba	13,210	-0.8	-3.9
Saskatchewan	11,350	-0.1	-10.3
Alberta	25,950	-3.2	-32.7
British Columbia	52,500	-1.3	-20.3
Yukon	780	-9.3	-23.5
Northwest Territories and Nunavut	1,120	0.9	-9.7
	unadjusted		
Northwest Territories	940	0.0	..
Nunavut	310	6.9	..

[p] *Preliminary figures.*
.. *Figures not available.*

Employment Insurance statistics

	March 1999	Feb. 2000	March 2000	Feb. to March 2000	March 1999 to March 2000
	seasonally adjusted				
				% change	
Regular beneficiaries	515,500	479,720[p]	471,430[p]	-1.7	-8.5
Regular benefits paid ($ millions)	660.8	645.1	615.3	-4.6	-6.9
Claims received ('000)	223.9	223.3	214.1	-4.1	-4.4
	unadjusted				
				% change	
All beneficiaries ('000)	880.5	846.8[p]	819.9[p]	-3.2	-6.9
Regular beneficiaries ('000)	673.7	643.1[p]	619.8[p]	-3.6	-8.0
Claims received ('000)	210.9	180.4	186.8	3.5	-11.5
Payments ($ millions)	1,381.7	1,154.1	1,101.6	-4.6	-20.3
	year-to-date				
			1999	2000	1999 to 2000
					% change
Claims received ('000)			699.6	668.6	-4.4
Payments ($ millions)			3,720.9	3,439.9	-7.6

[p] *Preliminary figures.*
Note: *All beneficiaries includes all claimants receiving regular benefits (e.g., due to layoff) or special benefits (e.g., due to illness).*

Note: The number of beneficiaries is a measure of all persons who were in receipt of Employment Insurance benefits for the week containing the 15th of the month. The regular benefit payments series measures the total of all monies received by individuals for the entire month. These different reference periods must be taken into consideration when comparisons are done between the series. The *Employment Insurance Act* allows each province or administrative region of Human Resources Development Canada to have certain autonomy in applying administrative procedures regarding renewal claims. Data users must take into consideration that movements in levels from month to month may be affected by different administrative procedures for renewal claims from one province or region to another.

Available on CANSIM: matrices 26 (series 1.6), 5700-5717, 5735 and 5736.

For more information, or to enquire about concepts, methods or data quality of this release, contact Robert Keay (613-951-4090; fax: 613-951-4087; *labour@statcan.ca*), Labour Statistics Division. ■

Mineral wool including fibrous glass insulation

April 2000

Manufacturers shipped 2 192 837 square metres of R12 factor (RSI 2.1) mineral wool batts in April, down 30.8% from 3 167 955 square metres in April 1999 but up 31.7% from 1 664 584 square metres in March.

Year-to-date shipments to the end of April totalled 7 914 335 square metres, a 27.5% decrease from the same period in 1999.

Available on CANSIM: matrices 40 and 122 (series 32 and 33).

The April issue of *Mineral wool including fibrous glass insulation* (44-004-XIB,$5/$47) is now available. See *How to order publications*.

For more information, or to enquire about the concepts, methods or data quality of this release, contact Bob Traversy (613-951-3531; *travrob@statcan.ca*), Manufacturing, Construction and Energy Division. ■

PUBLICATIONS RELEASED

Production of poultry and eggs, 1999
Catalogue number 23-202-XIB ($29).

Electric lamps, April 2000
Catalogue number 43-009-XIB ($5/$47).

Mineral wool including fibrous glass insulation, April 2000
Catalogue number 44-004-XIB ($5/$47).

Wholesale trade, March 2000
Catalogue number 63-008-XIB ($14/$140).

Imports by commodity, March 2000
Catalogue number 65-007-XMB ($37/$361).

Imports by commodity, March 2000
Catalogue number 65-007-XPB ($78/$773).

Education quarterly review, May 2000
Catalogue number 81-003-XIE ($16/$51).

Education quarterly review, May 2000
Catalogue number 81-003-XPB ($21/$68).

All prices are in Canadian dollars and exclude sales tax. Additional shipping charges apply for delivery outside Canada.

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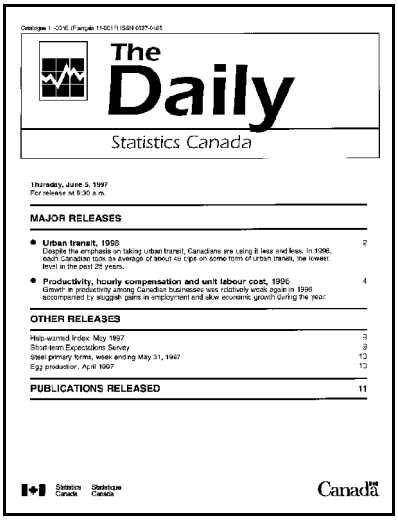

Catalogue 11-001E (Français 11-001F) ISSN 0837-0445

The Daily

Statistics Canada

Thursday, June 5, 1997
For release at 8:30 a.m.

MAJOR RELEASES

OTHER RELEASES

Statistics Canada Statistique Canada

Canada

Statistics Canada's official release bulletin

Catalogue 11-001E.

Published each working day by the Communications Division, Statistics Canada, 10-H, R.H. Coats Bldg., Tunney's Pasture, Ottawa, Ontario K1A 0T6.

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