

# Statistics Canada

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### Releases

### Survey of Earned Doctorates: A Profile of Doctoral Degree Recipients

2004

Four out of every five individuals who graduated with a doctorate between July 1, 2003 and June 30, 2004 intended to remain in Canada in the year following graduation, according to first results from the Survey of Earned Doctorates.

About 13% were planning on moving to the United States, while an additional 7% intended to move to some other country. Two-thirds of those graduates planning to leave the country were men.

Only about 8% of graduates who intended to leave Canada reported that they had no plans to return. Almost half, however, indicated that they did plan to return, while about one-third could not say.

Among foreign students, who are admitted to Canada to study at a Canadian university, just over 60% reported that they intended to remain in Canada.

Doctoral graduates from life sciences programs (agricultural, biological and health sciences) comprised the largest single group of those intending to leave. Just over 40% of all those who intended to live in another country after graduation were graduates from these programs.

In total, about 3,600 students graduated from Canadian universities with doctoral degrees during this one-year period. Data in this report, however, pertain to 3,300 graduates as about 300 did not have an opportunity to complete the questionnaire.

Three fields of study accounted for nearly half of all graduates: 21% graduated from biological sciences programs, 13% from engineering and another 13% from humanities.

Overall, 60% of doctoral graduates were men and 40% women. If foreign students (the vast majority of whom were male) were excluded, the balance among Canadians was nearly equal: 53% were men and 47% women.

Women outnumbered men among graduates from health science and psychology programs. However, in engineering, there were almost six times more male grads than female. Men also outnumbered women by a considerable amount in computer science/mathematics.

#### Average of nearly six years to complete a doctorate

On average, doctoral graduates took about 70 months, or five years and 10 months, to complete their program.

In the case of two programs (humanities and social sciences) it took significantly longer, about 80 months, or 6 years and 8 months.

This usually followed four years at the undergraduate level and two to three more years at the master's level.

On average, PhD graduates were about 36 years old when they graduated. Slightly over half (55%) were between 30 and 39, while 24% were 40 or older, and 20% were 29 or younger.

Graduates from fields such as psychology, computer science and mathematics, other physical sciences, biological sciences and chemistry tended to be slightly younger than average. However, except for psychology and biological sciences, graduates from these programs tended to take less time to complete their programs.

The highest average age at graduation, 46, was reported by graduates from the field of education. Chemistry grads had the lowest average at 31 years.

### Majority of graduates did not accrue debt to finance degrees

Slightly over half (56%) of all doctoral graduates completed their program without owing any money directly related to their graduate education.

Of those who were carrying debt directly related to their graduate studies, about 41% reported owing \$10,000 or less, 27% owed between \$10,000 and \$20,000, and 32% owed more than \$20,000.

About two-thirds (68%) of graduates from engineering and physical science programs reported they had no debt from their graduate studies, the highest proportion of any program.

When debt loads were tracked across both undergraduate and graduate levels of study, nearly one-half (46%) of all PhD graduates completed their programs with no education-related debt at all.

About 25% had debt only from their graduate program, 10% had debt only from their undergraduate program and 19% had debt from both.

## Universities provided support to over half of all doctoral graduates

The two most frequently reported sources of financial support were provided directly by the universities.

Teaching assistantships provided by the institution were used by two-thirds (64%) of graduates. These were followed by a fellowship or scholarship from the institution, reported by 58% of graduates.

Some 30% to 40% of graduates cited other sources of financial support, such as personal savings, provincial or territorial fellowship/scholarships, personal earnings, family savings and earnings, research assistantships granted by the institution, and loans.

About half (52%) of all graduates indicated that a fellowship/scholarship was their primary source of financial support. Another 20% indicated that a teaching or research assistantship was their primary source.

## Foreign students represented almost one-quarter of all doctoral graduates

About 23% of all doctoral graduates from Canadian universities in 2003/04 were foreign, or visa, students, and the vast majority (about 75%) were men.

The most popular programs of study for these graduates were engineering, physical sciences and life sciences. About three-quarters of all foreign students graduated from one of these three programs, compared to about one-half of all Canadian graduates.

Foreign students accounted for about 4 out of every 10 graduates from engineering and physical science programs.

## Research and development, teaching main fields for grads with firm job plans

For doctoral graduates with definite plans for employment, just over 30% reported their primary work

activity would be related to research and development. An equal proportion reported their job would be related to teaching.

Research and development activities were reported most often by graduates from engineering, life sciences and physical science programs.

In total, about 90% of all graduates with firm employment plans reported four industries as their prime area of employment. These were educational services; professional, scientific and technical services; health care and social assistance; and public administration.

The majority of graduates (57%) with firm employment plans were going to be working in the educational services industry.

In terms of salary, 6 out of every 10 doctoral graduates with jobs reported that they would be earning at least \$55,000. Only about 12% reported that their annual earnings would be below \$35,000.

This varied widely from program to program. About 75% of graduates from engineering and physical sciences said they would be earning \$55,000 or over. In contrast, only one-third of doctoral grads from humanities reported this income level.

### Definitions, data sources and methods: survey number 3126.

The report Survey of Earned Doctorates: A Profile of Doctoral Degree Recipients (81-595-MIE2005032, free) is now available online. From the Our products and services page, under Browse our Internet publications, choose Free, then Education.

For more information, to enquire about the concepts, methods of data quality of this release, or to order data, contact Client Services, (1-800-307-3382; 613-951-7608; fax: 613-951-9040; educationstats@statcan.ca), Culture, Tourism and the Centre for Education Statistics.

## Study: Childhood leukemia and socioeconomic status

1985 to 2001

Children in Canada's poorest neighbourhoods are somewhat less likely to get leukemia than those in the richest neighbourhoods, according to a new study of childhood leukemia patterns by neighbourhood income.

This study, which has been published in the July 2005 edition of the journal *Epidemiology*, was based on data from Canada's 10 provincial cancer registries, analysed by researchers from the British Columbia Cancer Agency, Statistics Canada and the Electric Power Research Institute.

It found a slightly lower relative risk of childhood leukemia in the poorest one-fifth of neighbourhoods, compared to the richest one-fifth.

The lower risk in the lowest income neighbourhoods was mainly restricted to acute lymphoid leukemia. This effect was slightly stronger in urban areas.

According to other studies cited, one possible explanation could be early contact with infectious agents and consequent development of antibodies which are thought to confer some protection against the development of leukemia. This contact might be more prevalent in neighbourhoods with lower income and poorer living conditions.

Leukemia is one of the most common potentially fatal illnesses in Canadian children. For the most part, its causes are not well understood.

This study was undertaken to determine whether there is a difference in incidence of childhood leukemia for different levels of socioeconomic status, measured by neighbourhood income.

All cases of invasive childhood leukemia, that is, in children up to the age of 19, diagnosed between 1985 and 2001 were identified from the 10 provincial cancer registries in Canada. Postal codes for the place of residence at the time of diagnosis were used to assign cases to census neighbourhoods.

Quintiles of population by neighbourhood income, as well as the population at risk by sex and five-year age

groupings, were constructed from census population data using the census year closest to the year of diagnosis.

### Definitions, data sources and methods: survey number 3207.

The study "Childhood leukemia and socioeconomic status in Canada," was published in *Epidemiology* 2005 July; 16(4): 526-531. An abstract of the article is available free online (http://www.ncbi.nlm.nih.gov/entrez) in English only.

For more information about the concepts, methods or data quality of the study, or to obtain a copy, contact Russell Wilkins (613-951-5305; russell.wilkins@statcan.ca), Health Analysis and Measurement Group, or Marilyn Borugian (604-675-8058; mborugia@bccancer.bc.ca), Cancer Control Research, British Columbia Cancer Agency.

## Domestic sales of refined petroleum products

May 2005 (preliminary)

Sales of refined petroleum products totaled 8 447 000 cubic metres in May, up 0.3% from May 2004. Sales decreased in four of the seven major product groups. Petrochemical feedstocks posted the biggest year-over-year decline in sales (-19.7% or down 92 600 cubic metres). Diesel fuel oil sales were up 5.5% or 115 900 cubic metres compared with May 2004 and motor gasoline edged up 1.0% or 35 700 cubic metres.

Sales of regular non-leaded gasoline (+0.5%) were unchanged while premium (+7.4%) and mid-grade gasolines (+1.7%) rose from May 2004.

Year-to-date sales of refined petroleum products at the end of May totalled 41 285 300 cubic metres down 0.4% from the same period of 2004. Sales decreased in five of the seven major product groups, with the largest decrease in light fuel oil (-11.6% or -336 100 cubic metres).

#### Sales of refined petroleum products

	May	May	May
	2004 <sup>r</sup>	2005 <sup>p</sup>	2004
			to
			May
			2005
	Thousands of cubic metres		% change
Total, all products	8 420.0	8 447.0	0.3
Motor gasoline	3 454.0	3 489.7	1.0
Diesel fuel oil	2 110.6	2 226.5	5.5
Light fuel oil	275.2	275.0	-0.1
Heavy fuel oil	788.3	740.5	-6.1
Aviation turbo fuels	535.4	513.1	-4.2
Petrochemical feedstocks <sup>1</sup> All other refined	469.2	376.6	-19.7
products	787.3	825.6	4.9

	January 2004 to May 2004 <sup>r</sup>	January 2005 to May 2005 <sup>p</sup>	JanMay 2004 to JanMay 2005
	Thousands of	% change	
Total, all products	41 459.6	41 285.3	-0.4
Motor gasoline	16 446.5	16 412.7	-0.2
Diesel fuel oil	9 907.8	10 445.2	5.4
Light fuel oil	2 890.1	2 554.0	-11.6
Heavy fuel oil	3 287.5	3 504.6	6.6
Aviation turbo fuels Petrochemical	2 526.3	2 424.7	-4.0
feedstocks <sup>1</sup> All other refined	2 021.8	1 893.6	-6.3
products	4 379.5	4 050.5	-7.5

r Revised.

### Definitions, data sources and methods: survey number 2150.

Preliminary domestic sales of refined petroleum products data are no longer available on CANSIM.

For more information, or to enquire about the concepts, methods or data quality of this release, contact the dissemination officer (866-873-8789; 613-951-9497; energ@statcan.ca), Manufacturing, Construction and Energy Division.

## Pipeline transportation of crude oil and refined petroleum products

March 2005

Data on the net receipts of crude oil and equivalent hydrocarbons, liquefied petroleum gases and refined petroleum products, pipeline exports of crude oil and deliveries of crude oil by pipeline to Canadian refineries are now available for March.

Available on CANSIM: tables 133-0001 to 133-0005.

Definitions, data sources and methods: survey numbers, including related surveys, 2148 and 2191.

For more information, or to enquire about the concepts, methods or data quality of this release, contact the dissemination officer (1-866-873-8789; 613-951-9497; energ@statcan.ca), Manufacturing, Construction and Energy Division.

### Asphalt roofing

May 2005

Data on asphalt roofing are now available for May.

Available on CANSIM: table 303-0052.

Definitions, data sources and methods: survey number 2123.

For more information, or to enquire about the concepts, methods or data quality of this release, contact the dissemination officer (1-866-873-8789; 613-951-9497; *manufact@statcan.ca*), Manufacturing, Construction and Energy Division.

Preliminary figures.

Materials produced by refineries that are used by the petrochemical industry to produce chemicals, synthetic rubber and a variety of plastics.

### **New products**

Culture, Tourism and the Centre for Education Statistics: Research Papers: Survey of Earned Doctorates: A Profile of Doctoral Degree Recipients, 2003/04, no. 32 Catalogue number 81-595-MIE2005032 (free).

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

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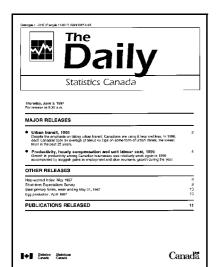
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