

Canada's Top 50 Research Universities List 2004 Analysis

Research Income Holds Steady

Sponsored research income received from third parties at Canada's 50 leading research universities reached almost \$4.3 billion in Fiscal 2003. Income gained ground last year, advancing by 12.6% over Fiscal 2002. This was close to the previous year's growth rate of 12.1%, but only about half the rate achieved in Fiscal 2001 (22.7%) and Fiscal 2000 (23.9%).

In Fiscal 2003, income from Non-corporate sources (e.g. individuals, charitable foundations) leapt by 21.8% over Fiscal 2002 and now accounts for 15% of the total. Individual donations jumped by 32.9%, while Foundation funding grew by 36.1%. However, income from Corporate sources increased by only 5.0%, and contributed 14% of the total, down from 15% last year. Research income from Investments and endowments continued to drop declining by -56.0% from 2002, on top of a -49.8% decline in Fiscal 2002.

Universities continue to be heavily dependent on government largesse. Income from Government sources increased over Fiscal 2002 by 13.4% and accounted for 69% of all sponsored income in 2003. Foreign government funding also increased this year over 2002 by 18.6%, but Municipal government funding dropped by -60.5%.

The \$100 Million Club

Fourteen universities are included in RESEARCH Infosource's \$100 Million Club. These prestigious institutions each attracted more than \$100 million of sponsored research income in Fiscal 2003. Thirteen have medical schools and 1 (Guelph) has a veterinary school. These large research magnets increased their income by 12.4%, more than the 9.7% increase in Fiscal 2002. The \$100 Million Club accounted for 80% of all Top 50 research income, the same share as in Fiscal 2002.

The \$100 Million Club		
2003 Rank	University	Research Income \$000
1	University of Toronto*	\$534,356
2	Université de Montréal*	\$394,426
3	University of British Columbia*	\$349,101
4	McGill University*	\$342,690
5	Université Laval*	\$287,578
6	University of Alberta*	\$272,853
7	McMaster University*	\$218,183
8	University of Ottawa*	\$186,174
9	University of Calgary*	\$165,622
10	Queen's University*	\$159,136
11	University of Western Ontario*	\$145,831
12	University of Manitoba*	\$130,029
13	University of Saskatchewan*	\$116,789
14	University of Guelph	\$113,765

*Has a medical school

Provincial Picture Uneven

Universities in Ontario, Quebec, British Columbia and Alberta accounted for 89% of all research income in Fiscal 2003, compared with 88% in Fiscal 2002. University research income rose sharply in British Columbia (53.3%), Prince Edward Island (29.1%), Manitoba (27.3%), and Newfoundland (22.5%). Quebec institutions posted a solid 14.3% increase in research income. Income declined in Alberta (-6.0%), Saskatchewan (-3.6%) and New Brunswick (-1.2%).

Top 50 –Leading Provinces	
Province	% of Total
Ontario (17)	38
Quebec (13)	30
British Columbia (4)	11
Alberta (3)	10

Gainers and Losers

The largest growth of total research income was posted at Wilfrid Laurier University (124.3%), University of Northern British Columbia (106.4%), Université du Québec en Outaouais (87.4%), University of British Columbia (61.4%), and Saint Mary's University (56.3%).

Top 10 Universities Ranked by Growth

2003 Rank		University	% Change 2002-2003
Income Growth	Overall		
1	33	Wilfrid Laurier University	124.3
2	32	University of Northern British Columbia	106.4
3	48	Université du Québec en Outaouais	87.4
4	3	University of British Columbia*	61.4
5	50	Saint Mary's University	56.3
6	17	Université de Sherbrooke*	51.9
7	21	Simon Fraser University	35.9
8	5	Université Laval*	33.2
9	23	Institut national de la recherche scientifique+	31.9
10	43	University of Prince Edward Island	29.1

*Has a medical school

+Not a full service university

The strongest decreases in research income from 2002 occurred at Laurentian University (-29.8%), Université de Moncton (-16.8%), University of Lethbridge (-15.8%), Trent University (-11.1%), and Carleton University (-7.6%).

Bottom 10 Universities Ranked by Growth

2003 Rank		University	% Change 2002-2003
Income Growth	Overall		
1	35	Laurentian University	-29.8
2	47	Université de Moncton	-16.8
3	40	University of Lethbridge	-15.8
4	34	Trent University	-11.1
5	20	Carleton University	-7.6
6	24	York University	-7.5
7	9	University of Calgary*	-6.9
8	6	University of Alberta*	-5.1
9	37	Lakehead University	-4.9
10	13	University of Saskatchewan*	-3.7

*Has a medical school

Research Intensity Gains Ground

The trend in research intensity - sponsored research income per full-time faculty position - is the best indicator of the health of the funding system. Top 50 research intensity grew by 9.7% in Fiscal 2003, slightly more than the year before (9.0%), but at a slower rate than total research income (12.6%).

Research intensity reached an average of \$124,300 per faculty position compared with \$113,300 in Fiscal 2002. Four institutions led the pack in research intensity, with intensity levels well in excess of the average: McGill University, Université de Montréal, McMaster University and Queen's University. All have medical schools.

Top 10 Universities Ranked by Research Intensity

2003 Rank		University	Research Intensity** (\$ per full-time faculty) \$000
Research Intensity	Overall		
1	4	McGill University*	\$238.1
2	2	Université de Montréal*	\$217.9
3	7	McMaster University*	\$214.5
4	10	Queen's University*	\$214.5
5	5	Université Laval*	\$208.1
6	1	University of Toronto*	\$198.3
7	8	University of Ottawa*	\$185.8
8	6	University of Alberta*	\$185.0
9	3	University of British Columbia*	\$182.6
10	14	University of Guelph	\$156.5

*Has a medical school

**Top 10 research intensity list includes full service institutions only

Apparent ties due to rounding

Medical/Doctoral Universities Increase Lead

Health research now accounts for 22.6% of total Canadian domestic expenditures on R&D, up from just 15.8% in 1994. In Fiscal 2003, research income from the Canadian Institutes of Health Research (CIHR) grew by 19.6%, compared with an increase of 6.1% from the Natural Sciences and Engineering Research Council (NSERC) and 9.4% from the Social Sciences and Humanities Research Council (SSHRC). So it is no surprise that 16 universities with medical schools were responsible for 82% of all sponsored research income at the Top 50 research universities - up from 81% in Fiscal 2002. In contrast, 34 schools without a medical school shared 18% of the total, down from 19% in Fiscal 2002. Medical/doctoral institutions grew their research income by 13.4% in Fiscal 2003, compared with only 9.3% at universities without a medical school.

3 Institutions Stand Out

Again this year, RESEARCH Infosource shines the spotlight on the success of 3 *Research Universities of the Year* (see our website www.researchinfosource.com for additional information). These institutions stand out on a balanced set of financial input and research output indicators. McMaster University emerges as the top performer overall and leader in the Medical/Doctoral category with 94.0 points awarded out of a possible 100. Guelph University retained its top place in the Comprehensive university grouping with a total of 83.7 points. For the second year Trent University was the leader among Undergraduate institutions with a total score of 56.0 points.

This Year and Next

Canada's Top 50 Research Universities continued to grow their research income in Fiscal 2003. The overall 12.6% expansion is down from previous years' highs, but nonetheless is a healthy rate of growth by historical standards. Particularly encouraging is that income received from the Non-corporate sector rebounded last year. Research funding by Foundations and Individuals were especially resilient. On the other hand, Corporate support rose only modestly, mirroring the corporate sector's own spending cutbacks (see the accompanying analysis of corporate R&D spending on page 7.)

Income from Government sources accounted for more than two-thirds of all income in Fiscal 2003, compared with less than two-thirds in Fiscal 2001. Contrary to accusations that corporate interests are driving their research agendas, university research is still very much fuelled by public sector funds. But governments' faith in university research is being tested by a new "commercialization" agenda emerging at the federal and provincial levels. Governments want to see more of their research spending translated into goods, services, jobs and exports. In response, universities have committed themselves to "triple the intellectual property revenues generated by commercialization by 2010", from 1999 levels.

University research funding has received special consideration by governments over the past 5 or 6 years. Now other spending priorities, such as health care, municipal infrastructure and even university tuitions, are overshadowing the research agenda. In the future the university research community will need to reinforce its case in the face of other social priorities. Demonstrating success in commercializing research will be crucial.

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