

Canada's Top 50 Research Universities List 2005 Analysis

Research Income Hits \$5 Billion for the First Time

For the first time ever sponsored research income at Canada's Top 50 Research Universities reached over \$5.0 billion in Fiscal 2004, compared with under \$4.3 billion the year before. Research income jumped by 17.7% in Fiscal 2004, compared with a 12.6% increase the previous year. Although the rate of growth was less than in the heady days of Fiscal 2001 (22.7%) and Fiscal 2000 (23.9%), total research income easily set an all-time record.

In Fiscal 2004, sponsored research income from government sources was the largest component (\$3.54 billion), increasing by 20.5%, to account for 70% of the total. Income from corporate sources grew by 9.9%, and in Fiscal 2004 accounted for \$650 million or 13% of sponsored research income, down from 14% in Fiscal 2003. Disappointingly, non-corporate income declined by -3.2%, falling to just under \$616 million or 12% of research income, down from 15% of the total in Fiscal 2003. The biggest jump was in the endowment/investment income category. Accounting changes were largely responsible for a 606.4% increase in this category, which reached \$136 million.

Government sources accounted for most university research income. In Fiscal 2004, government sources (\$3.54 billion) were responsible for 70% of all university research income. Federal government sources (\$2.35 billion) were predominant, accounting for 66% of all government funding. Provincial government sources (\$1.01 billion) account for 31% of government research funding. Although federal and provincial governments both increased their funding levels in Fiscal 2004, provincial funding (up 24.7%) grew faster than federal spending (up 21.1%). Surprisingly, foreign funding of research at Canadian institutions, which had been increasing for the past couple of years, dropped by -22.0% between Fiscal 2003 and 2004 to \$82.6 million. Income received from municipal governments (\$14.6 million) dropped by -7.8%.

The \$100 Million Club Expands

This year 15 universities are included in RESEARCH Infosource's \$100 Million Club, compared with 14 institutions last year. These prestigious institutions, most of which have medical or veterinary schools, each attracted more than \$100 million of research funding. New to the club this year is the University of Waterloo, the only Club member that has neither a medical nor veterinary school. Club members increased their research income by 17.7% in Fiscal 2004, matching the all-university rate.

The \$100 Million Club		
2004 Rank	University	Research Income \$000
1	University of Toronto*	\$623,995
2	McGill University*	\$543,497
3	Université de Montréal*	\$446,247
4	University of British Columbia*	\$363,337
5	University of Alberta*	\$360,009
6	Université Laval*	\$279,866
7	University of Calgary*	\$251,379
8	McMaster University*	\$246,173
9	University of Western Ontario*	\$191,231
10	University of Ottawa*	\$190,343
11	Queen's University*	\$174,762
12	University of Manitoba*	\$126,493
13	University of Guelph	\$122,943
14	University of Waterloo	\$109,949
15	University of Saskatchewan*	\$107,598

*Has a medical school

Provincial Picture Uneven

Universities in 7 provinces showed strong growth in research income, headed by 3 Alberta institutions. Alberta universities grew their research income by a heady 39.3% last year, easily outpacing the rest. Income growth was also extremely high (up 37.7%) at New Brunswick's 2 universities and at the University of Prince Edward Island (up 35.7%). Thirteen universities in Quebec showed strong income growth (up 23.0%), as did those in Nova Scotia (up 18.1%) and Newfoundland (up 17.6%). Ontario's 17 universities had income growth of 14.5%. In British Columbia, 4 universities managed only 4.2% income growth, whereas 2 universities in Saskatchewan saw income decline by -3.3%, while income shrank by -2.7% at one Manitoba institution.

Top 50 –Leading Provinces	
Province	Research Income % of Total
Ontario (17)	37
Quebec (13)	31
Alberta (3)	12
British Columbia (4)	10

Gainers and Losers

Six universities each had increases in research income of more than 50% in Fiscal 2004. École de technologie supérieure led the pack with a 115.7% rise in research income. Concordia University (up 77.1%), Acadia University (up 67.6%), Université de Moncton (up 60.4%), McGill University (up 58.6%) and University of Calgary (up 51.8%) all had superior performance. Carleton University (up 43.7%), Nova Scotia Agricultural College (up 40.5%), Université du Québec à Rimouski (up 39.9%) and Saint Mary's University (up 39.6%) also outperformed the rest.

Top 10 Universities by Growth			
2004 Rank		University	% Change 2003-2004
Income Growth	Overall		
1	30	École de technologie supérieure+	115.7
2	25	Concordia University	77.1
3	47	Acadia University	67.6
4	44	Université de Moncton	60.4
5	2	McGill University*	58.6
6	7	University of Calgary*	51.8
7	18	Carleton University	43.7
8	46	Nova Scotia Agricultural College+	40.5
9	37	Université du Québec à Rimouski	39.9
10	50	Saint Mary's University	39.6

*Has a medical school

+Not a full-service university

Inevitably though, not all universities fared well in research income last year, and several universities experienced disappointing results.

Bottom 10 Universities by Growth			
2004 Rank		University	% Change 2003-2004
Income Growth	Overall		
1	45	University of Northern British Columbia	-41.8
2	43	Wilfrid Laurier University	-38.6
3	31	Université du Québec à Trois-Rivières	-16.8
4	15	University of Saskatchewan*	-7.9
5	48	Cape Breton University	-6.7
6	12	University of Manitoba*	-2.7
7	6	Université Laval*	-2.7
8	28	University of Windsor	-1.7
9	32	Université du Québec à Chicoutimi	-1.6
10	20	University of Victoria	-1.2

*Has a medical school

Apparent ties due to rounding

Research Intensity Leaps

Research intensity - sponsored research income per full-time faculty position - is the single best indicator of the health of the funding system. Top 50 research intensity grew strongly by 14.6% in Fiscal 2004. All-university research intensity reached \$149,900 per full-time faculty, compared with \$130,700 in Fiscal 2003.

Three institutions led the pack in research intensity, achieving impressive levels: McGill University (\$381,100 per faculty position), University of Toronto (\$263,100) and Université de Montréal (\$244,300). All have medical schools.

Top 10 Research Intensive Universities			
2004 Rank		University	Research Intensity** (\$ per Full-time Faculty) \$000
Research Intensity	Overall		
1	2	McGill University*	\$381.1
2	1	University of Toronto*	\$263.1
3	3	Université de Montréal*	\$244.3
4	5	University of Alberta*	\$241.0
5	8	McMaster University*	\$233.6
6	11	Queen's University*	\$233.0
7	6	Université Laval*	\$207.5
8	4	University of British Columbia*	\$200.8
9	10	University of Ottawa*	\$194.8
10	7	University of Calgary*	\$168.9

*Has a medical school

**Includes full-service institutions only

Medical/Doctoral Universities Lead the Pack

Sixteen (16) Medical/doctoral universities (full-service universities with medical schools) accounted for the lion's share (82%) of all university research income in Fiscal 2004 - the same portion as the year before. Together, these powerful institutions attracted over \$4.1 billion of research income, compared to a total of \$912 million at 34 universities without a medical school.

3 Institutions Stand Out

Each year RE\$EARCH Infosource showcases 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. McGill University emerges as top performer overall and leader in the Medical/doctoral category with 97.3 points awarded out of a possible 100. Perennial leader Guelph University retained its top place in the Comprehensive university grouping with a total of 80.7 points. Trent University once again heads the Undergraduate category with a total score of 52.7 points.

This Year and Next

Fiscal 2004 was an outstanding year for Canada's Top 50 Research Universities. For the first time sponsored research income reached a total of more than \$5 billion. The number of institutions recording more than \$100 million of income increased to 15. Research intensity rose strongly. Corporate funding increased at a healthy rate. Funding for social sciences and humanities research jumped by nearly 38%. On the surface, signs are positive.

However, there are some concerns. Non-corporate funding of university research, which includes funding from foundations, non-government grants, contracts, donations and bequests, declined last year both in absolute and relative terms. Foreign funding also plummeted. As a result, government sources now account for 70% of total research income. Strong government support is welcome and needed. But the share of government-funded research is growing rapidly, eclipsing other forms of support.

For the past couple of years foreign funding of research at Canadian universities was on the rise. In Fiscal 2004, it dropped sharply. Perhaps this is an effect of a stronger dollar. Possibly, it indicates that the rapid growth of domestic research funding means that Canadian researchers need not look so far afield for support.

The coming years will undoubtedly see an increased focus on "commercialization" - turning research into goods and services that will benefit the economy and society. As government research funding expands so too will calls for an improving return on the public's investment.