

Canada's Top 50 Research Universities List 2009 Analysis

Research Income Growth Accelerates

Research income at Canada's Top 50 Research Universities expanded by a healthy 6.0% in Fiscal 2008, bettering the pedestrian 3.5% increase the year before. Total income reached nearly \$6.1 billion, up from \$5.7 billion in Fiscal 2007. A review of the last 10 years shows that between 1999 and 2008, total Top 50 research income expanded by 172.4%, or an average of nearly 19.2% a year. The Fiscal 2008 increase was on the low end during that period. Thirty-four institutions reported an increase in their research income while 16 had a decrease in Fiscal 2008, compared with 30 and 20 the year before.

The 2008 research income advance was driven by four factors: a 7.0% overall increase in funding from the four federal granting agencies (NSERC, CIHR, SSHRC, CFI); a 10.3% expansion of Corporate support; a 10.5% rise in Non-Corporate funding; and, a 13.4% increase in funding from the Not-for-profit/Foundation sector. Meanwhile, funding from Foreign sources plummeted by -22.8% and income from university Endowments/Investments fell by a precipitous -47.3%. Provincial government support lagged behind, rising by 3.0%

The \$100 Million Club Expands

Seventeen universities achieved \$100 Million Club status, posting research income of \$100 million or more in Fiscal 2008, which was up from 16 institutions last year. Most Club members benefit from the research income of their medical schools and affiliated teaching hospitals. However, 3 institutions – University of Guelph, University of Waterloo and University of Victoria – gained Club status without the advantage of medical schools. Within the Club, 13 members had increases in research income, while 4 members saw their income decline.

The \$100 Million Club		
2008 Rank	University	Research Income \$000
1	University of Toronto*	\$844,861
2	University of Alberta*	\$491,742
3	University of British Columbia*	\$470,146
4	Université de Montréal*	\$468,729
5	McGill University*	\$418,554
6	McMaster University*	\$373,542
7	Université Laval*	\$278,621
8	University of Ottawa*	\$245,524
9	University of Calgary*	\$236,202
10	University of Western Ontario*	\$222,336
11	University of Saskatchewan*	\$203,546
12	Queen's University*	\$192,502
13	University of Manitoba*	\$161,700
14	University of Guelph	\$142,119
15	University of Waterloo	\$135,152
16	Dalhousie University*	\$123,950
17	University of Victoria	\$112,429

*Has a medical school

Mixed Provincial Performance

Four provinces' universities made substantial gains in research income. Growth was especially strong at Saskatchewan universities with a combined research income growth of 30.3%, as well as in Prince Edward Island (24.9%), British Columbia (17.9%) and Nova Scotia (11.7%).

Ontario's 18 universities still dominate the funding landscape, accounting for 40% of total research income, slightly less than their share of 42% in Fiscal 2007. Thirteen Quebec institutions captured 25% of the total, up from 24% in Fiscal 2007. Three universities in Alberta gained 12% of the total, whereas 4 institutions in British Columbia accounted for 11% of all research income in Fiscal 2008.

Top 50 –Leading Provinces	
Province	% of Total
Ontario (18)	40
Quebec (13)	25
Alberta (3)	12
British Columbia (4)	11

Gainers and Losers

Twenty-eight of the Top 50 experienced research income increases that were higher than the national average of 6.0%. The group was paced by Trent University, where research income expanded by 55.5%. Other standouts were University of Saskatchewan (35.2%), Université du Québec à Rimouski (32.6%) and Nova Scotia Agricultural College (31.0%).

Top 10 Universities by Growth			
2008 Rank		University	% Change 2007-2008
Income Growth	Overall		
1	33	Trent University	55.5
2	11	University of Saskatchewan*	35.2
3	40	Université du Québec à Rimouski	32.6
4	45	Nova Scotia Agricultural College ⁺	31.0
5	31	Université du Québec à Chicoutimi	29.4
6	29	Laurentian University*	28.5
7	17	University of Victoria	25.9
8	37	University of Prince Edward Island	24.9
9	42	Université du Québec en Abitibi-Témiscamingue	24.0
10	30	Ryerson University	23.0

*Has a medical school
+Not a full-service university

For other universities, Fiscal 2008 proved a more disappointing year, with some double-digit drops.

Bottom 10 Universities by Growth			
2008 Rank		University	% Change 2007-2008
Income Growth	Overall		
1	34	Royal Military College of Canada	-14.5
2	32	Lakehead University*	-12.1
3	47	Wilfrid Laurier University	-11.6
4	24	Institut national de la recherche scientifique ⁺	-10.6
5	12	Queen's University*	-9.6
6	46	Université de Moncton	-9.0
7	41	Brock University	-8.8
8	22	Memorial University of Newfoundland*	-8.8
9	50	University of Ontario Institute of Technology ⁺	-8.1
10	38	Université du Québec à Trois-Rivières	-8.0

*Has a medical school
+Not a full-service university
Apparent ties due to rounding

Research Intensity Grows Less

Total Top 50 research income expanded by 6.0%, whereas Top 50 research intensity – research income divided by full-time faculty – grew slightly less, increasing by 4.4%. This reflects the effect of a small 1.5% overall expansion in faculty numbers. On average, each university attracted \$165,000 of research income per full-time faculty position in Fiscal 2008, up from \$158,000 last year. Twelve full-service universities bettered the national per-faculty income average.

Top 10 Research Intensive Universities**			
2008 Rank		University	Research Intensity (\$ per full-time faculty) \$000
Research Intensity	Overall		
1	1	University of Toronto*	\$352.0
2	6	McMaster University*	\$312.8
3	2	University of Alberta*	\$307.0
4	5	McGill University*	\$263.2
5	4	Université de Montréal*	\$248.4
6	12	Queen's University*	\$232.5
7	3	University of British Columbia*	\$214.7
8	7	Université Laval*	\$207.8
9	8	University of Ottawa*	\$207.7
10	11	University of Saskatchewan*	\$193.9

*Has a medical school

**Includes full-service institutions only

Although its research intensity was slightly reduced from the year before (-2.0%), University of Toronto easily led the pack, posting \$352,000 of income per full-time faculty. The next two universities were more closely matched, with McMaster University in second place (\$312,800 per faculty) and University of Alberta in third (\$307,000 per faculty).

Tier Shares Unchanged

Sixteen Medical/Doctoral universities – those with medical schools - captured 81% of total research income in Fiscal 2008, the same share as last year. Twelve Comprehensive institutions accounted for 14% of the total and 22 Undergraduate institutions shared the remaining 5% of income. All 3 university groupings saw their income rise, led by the Undergraduate universities (10.7%), Comprehensive (7.1%), and Medical/Doctoral institutions (5.5%).

Research Universities of the Year

RESEARCH Infosource once again shines the spotlight on 3 *Research Universities of the Year* – the leading institutions that excel on a balanced scorecard of research input and output/impact indicators.

This year kudos go to: University of Toronto in the Medical/Doctoral category, University of Waterloo in the Comprehensive category and Trent University in the Undergraduate category.

Spotlight On Research Publication Growth

The effect of increased research funding over the past decade is apparent in the primary research output of institutions – publications in peer-reviewed scientific journals. Data provided by the Observatoire des sciences et des technologies, indicated that 9 institutions performed especially well. Université de Sherbrooke led the Medical/Doctoral category, increasing its publication total by 61.2% between 2002 and 2007, followed closely by University of British Columbia (58.9%) and University of Ottawa (56.7%). University of New Brunswick headed the Comprehensive category with a rise of 68.9% in publications, with Simon Fraser University (61.9%) and University of Regina (59.4%) close behind. In the Undergraduate category Ryerson University made a dramatic 170.9% gain in research publication output. Trent University (84.7%) and Université de Moncton (83.6%) also registered strong gains.

This Year and Next

Against the backdrop of a weak economy the Fiscal 2008 university research income results come as a relief, rising by 6.0% overall. Although Investments/Endowments and Foreign sources of income were down sharply and Provincial support was relatively flat, Corporate, Non-Corporate and Not-for-profit/Foundation support made strong gains, and Federal funding was solid.

Do the Fiscal 2008 research income results represent the calm before the storm? Will the storm intensify in Fiscal 2009? With government sources typically accounting for about 70% of all university research income (up to 80% in the case of smaller institutions), stable support from the public sector – and the federal government in particular - obviously holds the key. Contrary to some recent public statements, it appears as though the public sector is consciously not cutting research support overall, in an effort to stabilize and protect the system.

Our review of the last decade has demonstrated a remarkable resurgence of research funding in Canada, with total research funding rising by 172.4% over 9 years. All institutions have benefited, with the smaller institutions making the greatest gains. The US administration has promised a substantial re-investment in university research after a period of neglect, and that will create a dilemma for Canadian policymakers – whether or not to try to match the rising pace of US investment. However, nowadays all incremental government spending is on the back of borrowed money, which whatever its potential returns must give cause for concern. Along with the broader research community, our fingers are crossed for next year.