

Canada's Top 50 Research Universities 2002 Analysis

Research Income at Record Levels

Fiscal 2001 sponsored research income at Canada's Top 50 Research Universities exceeded the record levels set in Fiscal 2000. Universities reported a jump of 22.7% in the financial support they received for research, which rose to \$3.4 billion from \$2.8 billion last year. Overall research intensity – sponsored research income per full-time faculty position – also reached all-time highs, rising 20.7% to an average \$103,200 per full-time faculty position, up from \$85,500 in Fiscal 2000.

Powerhouse University of Toronto headed the list of recipients, posting a total of \$470 million in research income from all sources. However, second place Université de Montréal narrowed the gap, recording nearly \$350 million of income. Université de Montréal led all institutions in research intensity, posting income per full-time faculty of \$209,700, edging out last year's intensity leader McGill University (\$208,700 per full-time position), and handily surpassing University of Toronto (\$178,900 per full-time position).

Largely responsible for the growth in funding and intensity are a suite of federal and provincial government programs, which were endowed on the strength of budgetary surpluses in the 1990s, and are now reaching their full operational pace. Growing research support from programs such as the Canada Foundation for Innovation, Canada Research Chairs, Canadian Institutes of Health Research, Genome Canada, and their many provincial government counterparts, underlie the rapid increases.

The \$100 Million Club

Fourteen universities – up from 10 universities in Fiscal 2000 - joined RESEARCH Infosource's \$100 Million Club, recording \$100 million or more of research funding in Fiscal 2001. New to the Club are University of Guelph (\$106.3 million), University of Saskatchewan (\$101.6 million), University of Manitoba (\$101.6 million), and Queen's University (\$101.4 million).

These leading institutions accounted for 82% of all research funding received by the Top 50 Research Universities; their combined income totaled \$2.8 billion of a Top 50 total of \$3.4 billion. All the Club members except University of Guelph have medical schools, which attract large amounts of research funding.

Six Ontario universities are included in the \$100 Million Club, followed by 3 Quebec universities, two from Alberta, and one each from British Columbia, Saskatchewan, and Manitoba.

The \$100 Million Club		
2001 Rank	University	Research Income \$000
1	University of Toronto*	\$470,062
2	Université de Montréal*	\$349,542
3	McGill University*	\$280,267
4	University of Alberta*	\$240,548
5	University of British Columbia*	\$193,432
6	Université Laval*	\$187,383
7	McMaster University*	\$184,845
8	University of Calgary*	\$172,101
9	University of Ottawa*	\$150,848
10	University of Western Ontario*	\$131,836
11	University of Guelph	\$106,338
12	University of Saskatchewan*	\$101,572
13	University of Manitoba*	\$101,570
14	Queen's University*	\$101,365
* has a medical school		

Provincial Results Differ

Universities in Ontario, Quebec, Alberta and British Columbia accounted for the lion's share – 89% - of research income. Seventeen Ontario universities accounted for 40% of Top 50 research funding, 12 Quebec institutions for 29%, 3 Alberta universities for 12%, and 4 British Columbia schools for 8%. Provincial shares were relatively unchanged from last year.

Top 50 - Leading Provinces	
Province	% of Total Research Income
Ontario	40
Quebec	29
Alberta	12
British Columbia	8

Smaller provinces bested their larger counterparts in income growth. Prince Edward Island's university posted the largest gain in income (up 128.4%), while Saskatchewan's two universities recorded an impressive 40.1% funding increase, close to double the provincial average increase of 22.7%. Manitoba institutions also recorded a strong 31.6% increase in funding.

Uncharacteristically, research income dropped in two provinces, which marred an otherwise stellar year. Provincial totals declined by –9.9% in New Brunswick (3 universities) and by –3.4% in Nova Scotia (5 universities).

Gainers and Losers

Smaller institutions headed the income growth list in 2001. The 10 fastest-growing universities increased their sponsored research income by 40% or more. Topping the list was Mount Allison University, which posted an impressive 188.2% increase in research income. UPEI was the next best performer, with income growth of 128.4%. Ryerson (up 74.4%), McMaster (up 72.9%), Laurentian (up 65.0%), Carleton (up 62.3%), and Saint Mary's (up 54.8%) all posted gains of over 50%, while University College of Cape Breton (47.1%), University of Lethbridge (up 47.1%), and University of Saskatchewan (up 41.4%) also recorded strong increases.

Top 10 Universities Ranked by Research Income Growth		
2001 Rank	University	% Change '00-'01
49	Mount Allison University	188.2
40	University of Prince Edward Island	128.4
32	Ryerson University	74.4
7	McMaster University*	72.9
30	Laurentian University	65.0
17	Carleton University	62.3
48	Saint Mary's University	54.8
39	University College of Cape Breton	47.1
38	University of Lethbridge	47.1
12	University of Saskatchewan*	41.4
* = has a medical school		

At the opposite end of the spectrum, 3 institutions (Moncton, Winnipeg, and Icole de technologie supérieure) reported double-digit declines in research income, while 7 others had lesser reductions.

Bottom 10 Universities Ranked by Research Income Growth		
2001 Rank	University	% Change '00-'01
44	Université de Moncton	-36.5
50	University of Winnipeg	-21.8
41	École de technologie supérieure+	-16.4
25	University of New Brunswick	-9.2
16	Dalhousie University*	-8.7
19	Université de Sherbrooke*	-6.1
33	Trent University	-5.3
23	York University	-3.9
47	Nova Scotia Agricultural College+	-2.4
45	Télé-université du Québec (Téluq)+	-1.2
* = has a medical school + = not a full service university		

Research Intensity Rising Strongly

Top 50 research intensity – research dollars per full-time faculty position – is growing at an unprecedented rate. Intensity increased from an average \$69,600 two years ago (Fiscal 1999) to \$103,200 in Fiscal 2001 – a rise of 48.3%.

Top 10 Universities Ranked by Research Intensity		
2001 Rank	University	Research Intensity (\$ per full-time faculty) \$000
2	Université de Montréal*	\$209.7
3	McGill University*	\$208.7
7	McMaster University*	\$197.3
1	University of Toronto*	\$178.9
4	University of Alberta*	\$171.9
11	University of Guelph	\$159.4
9	University of Ottawa*	\$156.8
14	Queen's University*	\$134.6
8	University of Calgary*	\$126.1
6	Université Laval*++	\$125.1
* = has a medical school ++ = research intensity calculated using 2000 faculty data Note: Top 10 list only includes full service institutions		

Although this year's intensity list includes the same universities as last year, there is a change in their ranking. Heading the 2001 intensity list are 2 Quebec institutions (Montréal, McGill). McMaster University jumped in the standings from 7th position last year to 3rd position overall this year; McMaster displaced last year's occupant, University of Alberta. University of Toronto moved from 5th to 4th position, and Queen's University moved to 8th from 9th position.

Medical/Doctoral Universities Dominate

Universities that have medical schools and a strong mix of Ph.D. programs dominate the research income scene. Fifteen Medical/Doctoral institutions accounted for 82% of all research income in Fiscal 2001, up from 80% in Fiscal 2000. Average per-university income at these universities was \$185.2 million, compared with \$37.7 million at 12 Comprehensive universities, and only \$7.3 million at primarily Undergraduate institutions.

Research income also grew more strongly at Medical/Doctoral universities, rising 25.2% over last year, double the rate of other university types. This compares with lesser – but still healthy - growth rates of 12.3% at Comprehensive universities and 13.0% at Undergraduate institutions.

15 Institutions Lead the Pack

RESEARCH Infosource shines the spotlight on 5 universities in each of 3 categories. Leading the Medical/Doctoral category were 5 universities (Toronto, Montréal, McGill, Alberta, British Columbia). Among Comprehensive institutions, Guelph, Waterloo, Carleton, Victoria and Memorial were the leaders. At universities which are primarily Undergraduate, Université du Québec à Montréal, Royal Military College, Laurentian, Université du Québec à Trois-Rivières, and Ryerson posted the strongest showing.

Top 5 Medical/Doctoral Universities		
2001 Rank	University	\$000
1	University of Toronto*	\$470,062
2	Université de Montréal*	\$349,542
3	McGill University*	\$280,267
4	University of Alberta*	\$240,548
5	University of British Columbia*	\$193,432
* = has a medical school		

Top 5 Comprehensive Universities		
2001 Rank	University	\$000
11	University of Guelph	\$106,338
15	University of Waterloo	\$72,907
17	Carleton University	\$46,214
18	University of Victoria	\$41,573
21	Memorial University of Newfoundland*	\$34,278
* = has a medical school		

Top 5 Undergraduate Universities		
2001 Rank	University	\$000
20	Université du Québec à Montréal	\$39,643
27	Royal Military College	\$13,637
30	Laurentian University	\$11,762
31	Université du Québec à Trois-Rivières	\$10,560
32	Ryerson University	\$9,016

This Year and Next

Overall, Fiscal 2001 was another banner year for research income at Canadian universities. There is no doubt that plans laid by federal and provincial research funders in the 1990s are bearing fruit, as best indicated by the 48.3% rise in research income, from \$69,600 per faculty position two years ago to \$103,200 today.

Although the largest institutions continue to dominate the funding tables in both research income and intensity, all university categories posted healthy gains. Four more institutions joined the elite \$100 Million Club, raising the total to 14 schools.

Many smaller institutions posted strong gains in research income growth, which indicates that the current mix of funding programs can benefit all. Also encouraging were the strong gains made by universities in smaller provinces, particularly PEI, Saskatchewan, and Manitoba, where research income growth outpaced the national average.

While a number of individual universities reported negative income growth, this may simply reflect the timing of receipt of funds, and should not be interpreted as a reflection on the quality of the institutions' work. University research funding programs were operating at full strength in Fiscal 2001, and this fact accounted for the strong national results. Next year's results (Fiscal 2002) may show an overall decline, as funders scale back the launch of new competitions, and as universities digest the record levels of investment.

A cloud hanging over the research funding scene is the ability of non-government funders – especially companies – to meet their past commitments to provide matching funds for government programs, and to enter into new funding partnerships. Balancing this uncertainty is the federal government's Throne Speech commitment to continue to increase its funding to the federal Granting Councils and to work with universities on the indirect costs of research and on strategies for its commercialization.

Fiscal 2001 may turn out to be the high-water mark for university research funding, but even if the waters recede somewhat next year, recent and new investments will nurture them for some time to come.

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