

Research Matters

F2016 - 17 Year-in-Review

Message from the Vice-President (Research)

I would like to thank everyone for your support over the past year as I assumed the role of Acting Vice-President (Research). After facing a number of challenges in 2015-2016, I am happy to report that research revenue, both in terms of grants and contracts, is on an upswing. It has increased approximately 25% from last year. We have a lot to be proud of.

Tri-Council funding has increased by 13.5% from last year. Both NSERC and CIHR awards were up for the second year in a row, while SSHRC remained stable. It should be noted that Tri-Council research revenues, depicted on page 7, represents all programs. However, the 2016 Tri-Council results, which are available on page 8, indicate a significant increase in the monetary rewards. For example, in 2015-2016 the total SSHRC funding was \$480,711. In 2016-2017 it was \$1,100,000. Likewise, in 2015-2016 CIHR funding was \$600,175: in 2016-2017 it was \$1,226,313. The Research Support Fund (RSF) that comes to the University, as a result of triagency funding, remained relatively consistent with what we have received over each of the past 5 years.



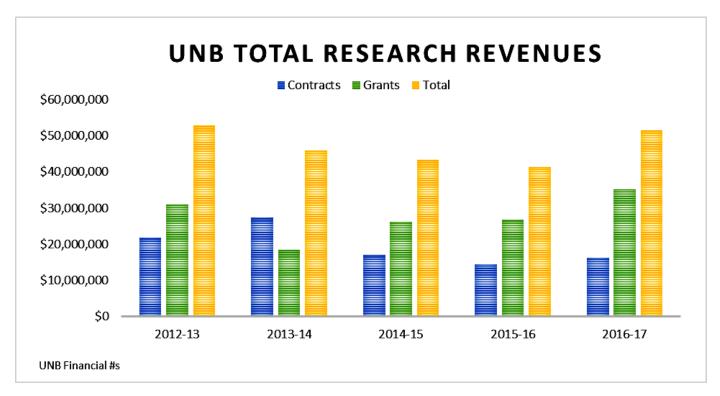
David MaGee, Vice-President (Research)

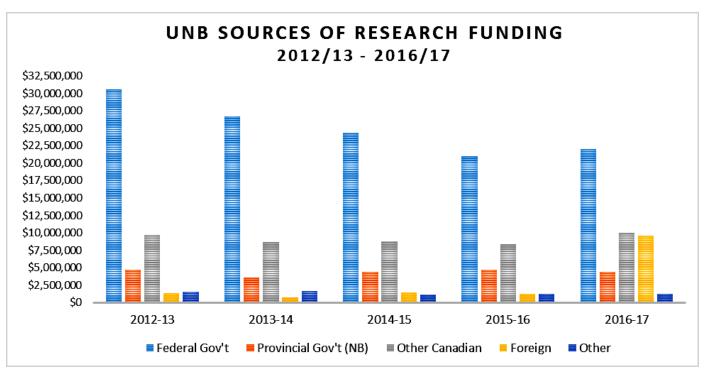
Over the past year we have also been involved in many exciting initiatives, including two new ACOA projects. In addition, we are pleased to welcome Dr. Jeff Hebert as UNB's Chiropractic Health Research Chair. Finally, UNB was able to secure funding for a new Cannabis Health Research Chair, and it is expected that the Chair holder will be in place by mid 2018. I am looking forward to working with you over the next five years, as we explore a number of new and exciting research projects.

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Research Revenue

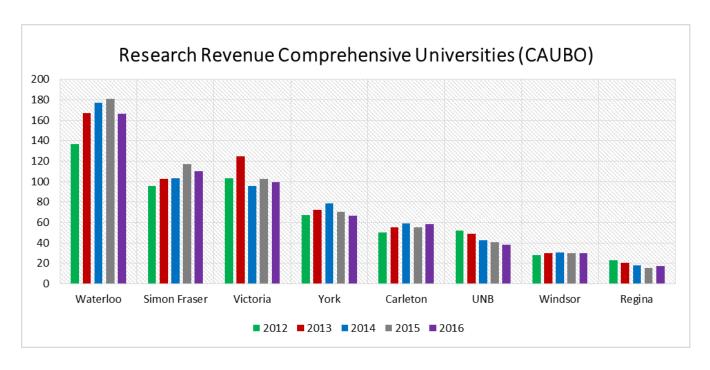
The 2016-17 fiscal year saw our research revenues increase significantly. After a considerable upswing in research revenues in 2011-12, there was a steady decline over the ensuing 3 years. Fortunately, this year we are pleased to report a marked 24.6% increase in research revenues was attained. This was attributable to a 31.4% increase in Tri-Council funding and a 12.1% increase in contract revenues. Royalty revenues remain relatively stable.



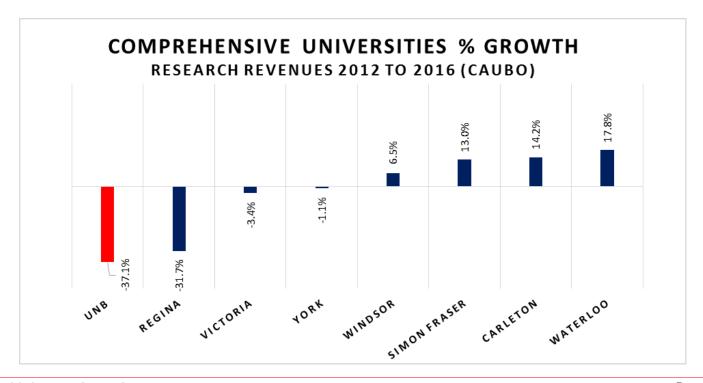


Research Revenue (continued)

The Canadian Association of University Business Officers (CAUBO) compiles summaries of research-related revenues based on mutually agreed upon definitions. It is this number that is used for inter-institutional comparisons. In the fiscal year 2015-16, UNB's CAUBO number was \$38,128. This was down 7.1% from the final CAUBO number for the previous year. The interinstitutional comparative revenues graphed below are one year in arrears due to reporting and publication delays.



We have routinely reported our percentage growth in CAUBO research revenues over a rolling five year period in comparison to our peer group of universities.



Research Revenue (continued)

Research Revenue per Generating Academic Unit

The following table attributes research revenues by generating academic unit during the last fiscal year. Grants, contracts and other column values are generated by audited CAUBO numbers. Funding for research scholarships such as Canadian Heritage, Canada Council, and The NB Arts Board are reported in the Additional Research Funding column, as submitted by Chairs and Deans of the departments and Faculties. Note that some research revenues are generated by the university, but are not reported on this table (e.g., the Research Support Fund program).

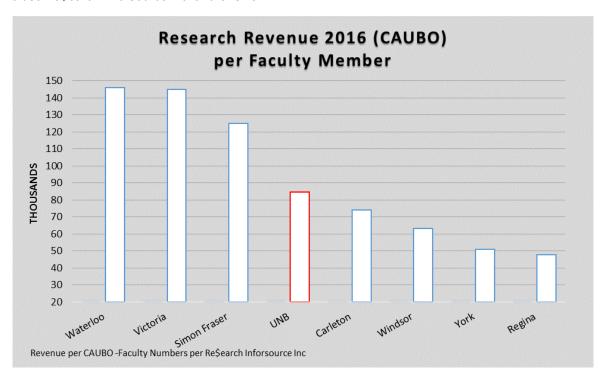
Research Revenues per Generating Academic Unit							
UNIT	Grants (CAUBO)	Contracts (CAUBO)	Other (CAUBO)	Total (CAUBO)	Additional Research Funding		
ARTS (F)	3,317,088	58,858	185,764	3,561,710	\$598,000		
Arts	337,109			337,109			
Anthropology	228,414		35,495	263,909			
Classics & Ancient History	3,688			3,688			
Culture & Language Studies	2,000		3,000	5,000			
Economics	983,897	32,913		1,016,810			
English	66,034			66,034			
French	29,139			29,139			
History	497,921		108,377	606,298			
Political Science	14,178			14,178			
Psychology	469,553	5,040	38,892	513,485			
Sociology	685,155	20,905		706,060			
BUSINESS ADMIN (F)	105,950			105,950			
COMPUTER SCIENCE (F)	1,160,395	546,286	21,616	1,728,297			
EDUCATION (F)	521,738		135,000	656,738			
ENGINEERING (F)	4,136,813	4,039,378	274,856	8,451,047			
Engineering	25,000		-190,000	-165,000			
Chemical Engineering	1,519,430	1,601,520	12,667	3,133,617			
Civil Engineering	420,694	324,092		744,786			
Electrical & Computer Eng.	758,804	804,134		1,562,938			
Geodesy & Geomatics	558,165	833,273	150,807	1,542,245			
Mechanical Engineering	711,221	249,077	27,500	987,798			
J Herbert Smith ACOA Chair	143,499	227,282	273,882	644,663			
FORESTRY (F)	1,385,686	1,253,260	9,008	2,647,954			
KINESIOLOGY (F)	245,760		24,000	269,760			
LAW (F)	51,272		12,000	63,272			
NURSING (F)	427,639	39,874	-1,213	466,300	53,800		

Research Revenues per Generating Academic Unit (continued)

Research Revenues per Generating Academic Unit							
UNIT	Grants (CAUBO)	Contracts (CAUBO)	Other (CAUBO)	Total (CAUBO)	Additional Research Funding		
SCIENCE (F)	2,895,103	1,609,246	77,583	4,581,932			
Biology	807,882	465,856	21,000	1,294,738			
Chemistry	310,808	87,208	12,000	410,016			
Earth Sciences	738,521	334,376	27,255	1,100,152			
Math & Stats	250,000	30,000	10,000	290,000			
Physics	787,892	691,806	7,328	1,487,026			
SCHOOL OF GRAD STUDIES	170,719		2,556,866	2,727,585			
INSTITUTE OF BIOMEDICAL ENGINEERING (IBME)	800,832	1,208,890	500	2,010,222			
CANADIAN INSTITUTE CYBERSECURITY	868,355	410,562	35,625	1,314,542			
CANADIAN RESEARCH INSTITUTE FOR SOCIAL POLICY (CRISP)	200,000	152,623		352,623			
CDN. RIVERS INSTITUTE (CRI) (F & SJ)	1,823,800	1,265,482	14,994	3,104,276			
NB INSTITUTE RESEARCH DATA	379,206	123,610		502,816			
HIL	0	0	0	0			
CNER INSTITUTE*	190,000	298,538		488,538			
ARTS (SJ)	35,268	32,803	4,536	72,607	170,500		
History & Politics	2,145		4,536	6,681			
Humanities & Languages				0			
Psychology				0			
Social Science				0			
Criminal Justice Studies	33,123	32,803		65,926			
BUSINESS (SJ)	19,250		7,577	26,827			
SCIENCE, APPLIED SCIENCE & ENGINEERING (SJ)	2,185,510	280,208	59,727	2,525,445			
Biology	1,400,187	160,084	36,237	1,596,508			
Computer Science and Applied Stats	19,400	10,124		29,524			
Mathematical Sciences	34,000			34,000			
Nursing/Health Sciences	311,190		23,490	334,680			
Science & Engineering	248,333	110,000		358,333			
Physical Sciences	172,400			172,400			
DAL MEDICAL ED PROGRAM	141,709			141,709			
URBAN & COMMUNITY STUDIES INSTITUTE	7,000			7,000			

Research Revenue (continued)

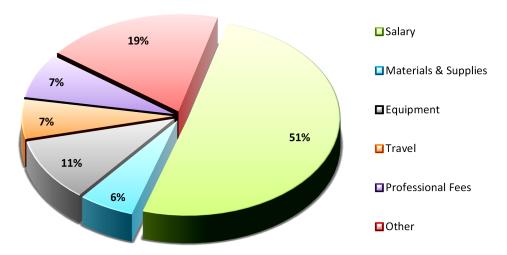
A metric that is commonly cited when comparing the research intensity at universities is the research revenue generated per faculty member. In order to make such a comparison credible, independent sources are required for the two metrics. For our purposes, we use Re\$earch Info Source Inc. and CAUBO.



Research Expenditures

The majority of the research funding received by UNB goes back into the New Brunswick economy through salaries. In 2016-17, \$19.7 million was spent on student and non-student salaries. Equipment, materials and supplies consumed \$6.4 million and travel \$2.5 million.

Research Expenditures UNB 2016-2017

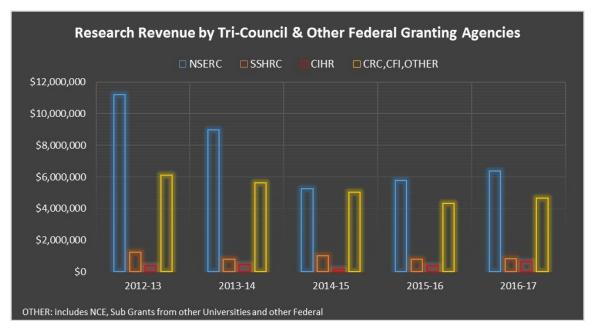


*Note: Preliminary Numbers from Datatel System

NOTE: The bulk of all research revenues eventually flow back out as expenses. Due to the timing of different accounting tasks, however, total research expenditures will not equal total research revenues for the fiscal year.

Tri-Council Funding

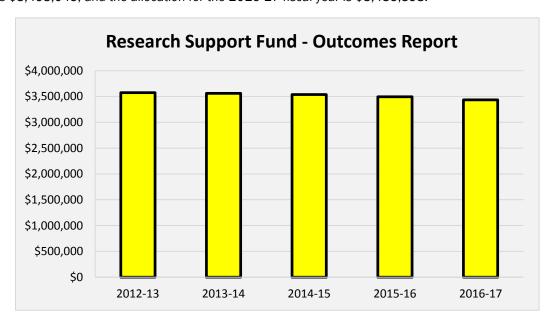
UNB's Tri-Council (NSERC, SSHRC, CIHR) grant revenues in fiscal year 2016-17 increased by 13.5% overall to \$7.86M from the \$6.93M level of 2015-16.



As indicated, grants from Tri-Council are a very important component of UNB's research activities. The details of our successes or lack thereof are being continuously scrutinized. To that end, details of our submissions to, and awards from NSERC, SSHRC & CIHR for the calendar year 2016 are depicted on the above table (totals will differ from those presented for fiscal year 2016-17). In order to facilitate comparisons, we have also provided last year's (2015) metrics.

Research Support Fund

The Research Support Fund program provides funding for research facilities, resources, management and administration, regulatory requirements, accreditation and intellectual property management. The amount universities receive from this program is contingent on their level of Tri-Council funding based on a three-year rolling average. The university's allocation for 2015-16 was \$3,493,045, and the allocation for the 2016-17 fiscal year is \$3,435,398.



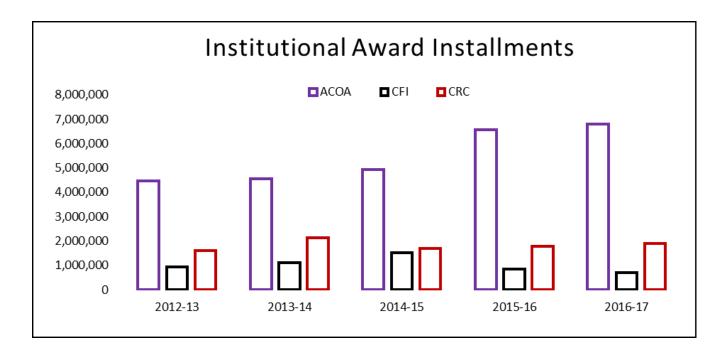
Tri-Council Success

UNB's awarded Tri-Council success results (taken from ROMEO) are based on the 2016 calendar year.

2016 Results								
Submissions	Program	Submitted	Requested	Successful	Awarded	Success Rate	Funding Rate	
	CRD	4	1,641,432	4	1,641,432	100.00%	100.00%	
	Strategic Project	1	776900	0	0	0.00%	0.00%	
	RTI	10	1,519,812	0	0	0.00%	0.00%	
NSERC	Discovery	43	12,494,161	23	2,945,000	53.49%	23.57%	
	Engage & Engage Plus	13	312,439	10	234,500	76.92%	75.05%	
	Other	18	2,832,595	7	32,085	38.89%	1.13%	
	Total NSERC	89	19,577,339	44	4,853,017	49.44%	24.79%	
SSHRC	Insight	8	1,641,650	3	359,347	37.50%	21.89%	
	Other	27	1,608,401	14	761,103	4.80%	1.10%	
	Total SSHRC	35	3,250,051	17	1,120,450	48.57%	34.47%	
	Foundation Scheme		*Foundation Scheme Sus- pended					
CIHR	Project (frmly OOG)	12	4,320,000	1	424,298	8.33%	9.82%	
	Other	8	2,641,958	4	802,015	50.00%	30.36%	
	Total CIHR	20	6,961,958	5	1,226,313	25.00%	17.61%	

2015 Results								
Submissions	Program	Submitted	Requested	Successful	Awarded	Success Rate	Funding Rate	
	CRD	2	1,052,000	2	1,052,000	100.0%	100.0%	
	Strategic Project	0	0	0	0	0.0%	0.0%	
	RTI	9	875,241	0	0	0.0%	0.0%	
NSERC	Discovery	48	13,733,672	30	3,907,000	62.5%	28.4%	
NO ENG	Engage & Engage Plus	16	386,900	12	287,500	75.0%	74.3%	
	Other	8	504,964	2	28,574	25.0%	5.7%	
	Total NSERC	83	16,552,777	46	5,275,074	55.4%	31.9%	
SSHRC	Insight	6	1,416,233	2	442,095	33.3%	31.2%	
	Other	21	3,568,787	1	38,616	4.8%	1.1%	
	Total SSHRC	27	4,985,020	3	480,711	11.1%	9.6%	
CIHR	Foundation Scheme	3	LOI	0	0	0.0%	0.0%	
	Transitional OG	4	2,266,597	0	0	0.0%	0.0%	
	Other	7	2,190,391	2	600,175	28.6%	27.4%	
	Total CIHR	14	4,456,988	2	600,175	14.3%	13.5%	

Institutional Funding



Atlantic Canada Innovation Fund

The Atlantic Canada Opportunities Agency continues to support UNB research. There were two new awards in this fiscal year, with a total of six UNB active AIF projects.

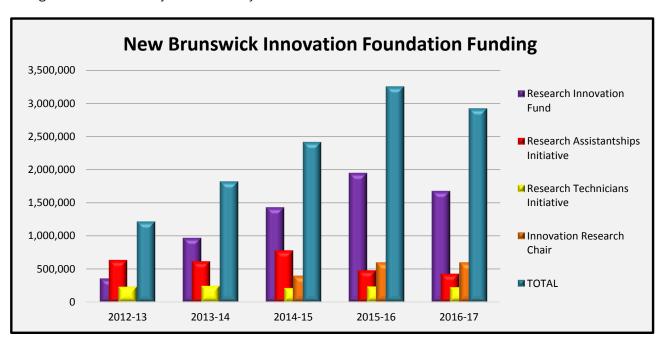
Along with leading six projects, UNB is involved in two active AIFs lead by other organizations. UNB researchers continue to play important roles in an AIF project led by Acadia University and another project led by Forest Protection Limited.

Canada Foundation for Innovation (CFI)

In 2016-17, UNB was successful in having three new CFI projects approved at a total value of \$425,000, plus an additional \$127,500 in infrastructure operating funds to help maintain the equipment. UNB researchers are currently leading 10 active CFI infrastructure projects involving \$1.6 million from the CFI and \$2.37 million from matching sources.

New Brunswick Innovation Foundation (NBIF)

The New Brunswick Innovation Foundation continued to be a strong supporter of research at UNB. UNB saw a negligible decrease in all NBIF programs, and received added funding via the Innovation Research Chair for the third year in a row. Total NBIF funding to UNB decreased by 10% over last year.



New Brunswick Health Research Foundation (NBHRF)

NBHRF contribute to UNB research. From 2011-12 to 2013-14, NBHRF contributions to UNB's research enterprise had been in the \$200K—\$300K range. However, as the graph indicates, since 2014-15 these numbers have increased significantly. In 2014-15 contributions reached \$1.3M due in part to funding received for the SPOR Network and the Jarislowsky Chair. Continuing on this positive trend, in the 2016-17 fiscal year over \$1.3M was received, representing an 11% increase over 2015-16 numbers. This increase was again due to funding for the SPOR Network and the Diabetes Research Chair.

