

**National Norms:  
Utilizing the  
Comparative Financial  
Data of Universities  
and Colleges in  
Canada**

**Presented at HEIR 2014  
September 9, 2014**

**Realize. It starts  
with you.**

Office of Resource Planning  
University of Regina

Presenters:  
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# Outline:

- The University of Regina and the Office of Resource Planning (ORP).
- Demand for comparative financial and other forms of data - what data is available to us?
- Description of the financial information of universities and colleges in Canada - how its collected - how is it used - what are the limitations in its use - implications for decision making.
- Regression model: national norms as a means of comparison - challenges in using the analysis

# University of Regina

- Originally a satellite campus of the University of Saskatchewan - became an independent degree granting institution (1974). Largely undergraduate at inception.
- The University is home to 10 faculties and 25 academic departments - now includes a significant graduate and professional degree component - “comprehensive university”
- Federated Colleges: Campion College, Luther College and First Nations University of Canada
- Combined student population (full and part-time, undergraduate and graduate) of 13,784 (registrations as of September 2, 2014).

# University of Regina

- Office of Resource Planning – budgeting process and, review of operating funding mechanisms
- Work closely with the Government of Saskatchewan’s Ministry of Advanced Education which provides 55% of the University of Regina’s operating funds (Funds are in part allocated for specific purposes notionally based on averages of peer institutions from the CAUBO data).
- Student tuition and fees account for another 35% of the University’s operating funds.
- Allocation-based funding model - a component of which includes notional expenditure averages from CAUBO data.

# Demands for Comparative Data

- Accountability and Transparency: Ministry, Students, internal performance measurement
- HE Rankings – Times Higher Education World Rankings, QS, etc.
- Canada: Maclean's Magazine, Globe and Mail
- Regression line – where we are relative to our peers

# HE Statistics for Canada

- Higher Education Statistical Agency (HESA)
- Canadian HE – No comparable centralized collection of data
- Statistics Canada – some mandatory collection of data on HE but not to the same degree as HESA.
- Common University Dataset for Canada (CUDC)

# HE Statistics for Canada

- Association of Atlantic Universities: Atlantic Common University Data Set
- Conference of Rectors and Principals of Quebec Universities: Ensemble de données universitaires communes - Québec  
EDUCQ - Common University Data – Quebec
- Council of Ontario Universities: COMMON UNIVERSITY DATA ONTARIO (CUDO).
- British Columbia Higher Education Accountability Dataset (BC HEADset)

# Other Statistical Sources

- Association of University and Colleges Canada (AUCC).
- Canadian Association of University Business Officers (CAUBO).
- Canadian Association of University Teachers (CAUT).



# Canadian Association of University Business Officers (CAUBO)

- ***Financial Information of Universities and Colleges*** is an annual publication prepared by Statistics Canada for the Canadian Association of University Business Officers (CAUBO). CAUBO obtains the financial data for the publication through an annual survey of its degree granting member institutions.

The financial data in the publication is based on an annual return completed and submitted by each member institution. The publication reports the financial data individually, by institution, and in aggregate, by province, region and nationally.

# Financial Reporting:

- An institution's CAUBO return is intended to produce a comprehensive source for the financial data of universities and colleges in Canada.
- An institution's primary financial report is its annual financial statements prepared in accordance with generally accepted accounting principles and are subject to audit by external auditors.
- An institution's CAUBO annual return is prepared in accordance with prescribed reporting practices but is not subject to audit. Rather than representing an accounting of financial stewardship, the annual return provides financial data for statistical comparisons among institutions and for trend analysis.

# Usage:

- At the aggregate level, CAUBO data is used as the principle source of financial data for the estimates of higher education research and development expenditures that are reporting in Canada and reported internationally for Canada (OECD etc.).
- At the provincial level, the financial data is used by some ministries and departments to inform funding.
- At the institutional level, the financial data is used to establish the eligibility levels for funding under programs such as the Canada Foundation for Innovation (CFI).

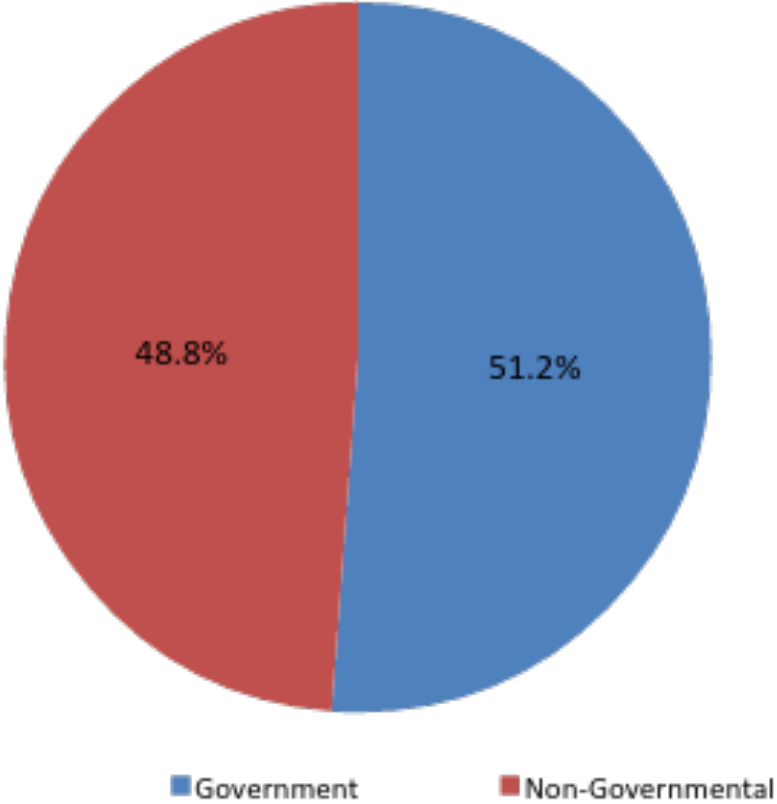
# Limitations:

- As one moves from aggregated data to data that directly compares institutions, either individually or between provinces or regions, the comparability of the data has limitations.
- Limitations in the comparability of the data can result because of differences in the underlying accounting practices followed by institutions.
- Limitations can also result from other inherent practices. Institutional comparisons are subject to interpretation and clarification because of differences such as size, academic programs, structure, physical environment, management philosophy and budgetary and accounting procedures.

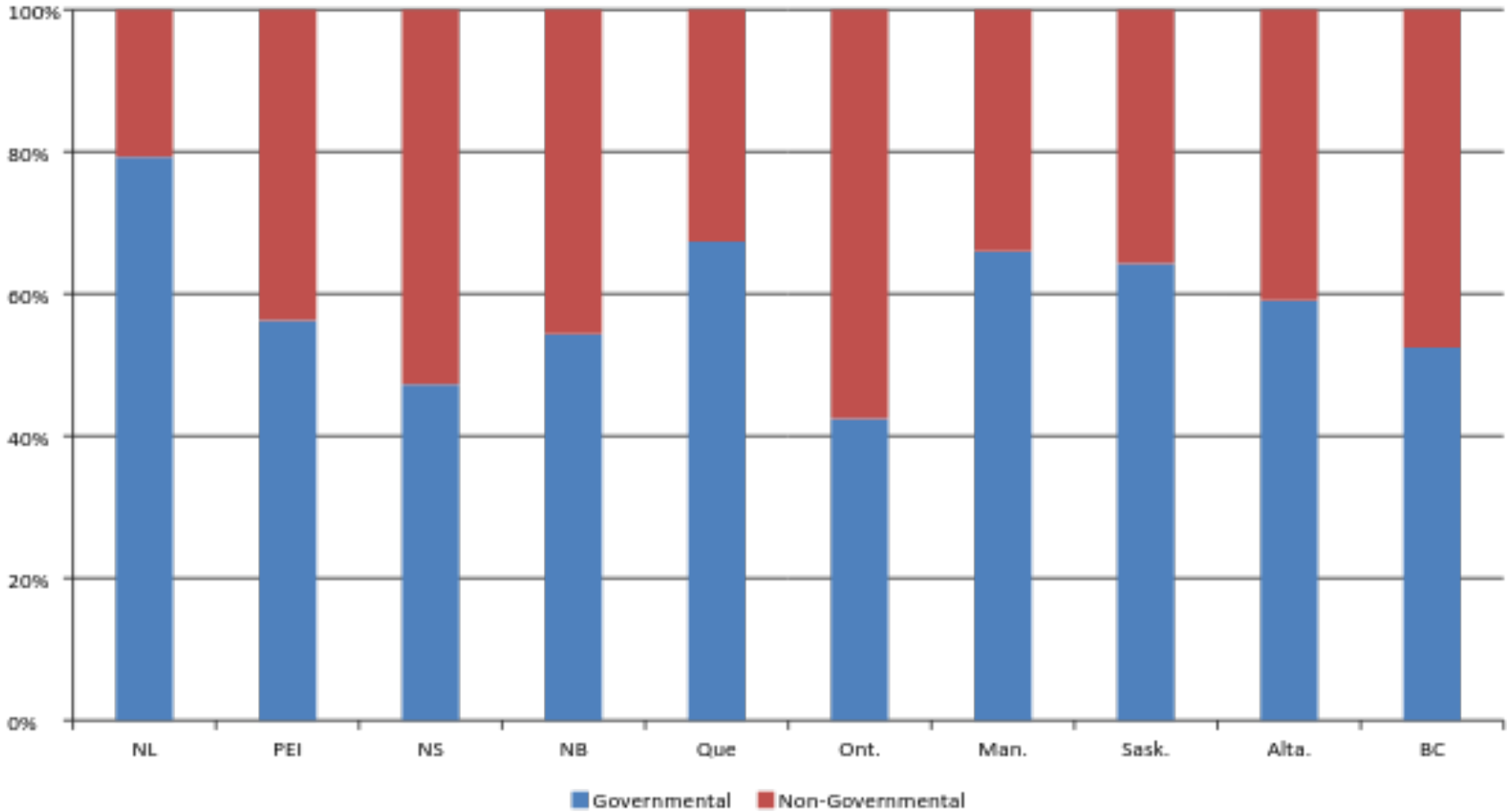
# Limitations:

- Interregional comparisons must also recognize differences such as various sources of funding, fiscal year-end dates varying from March 31<sup>st</sup> to June 30<sup>th</sup>, and variations in provincial policies and provincial funding responsibilities.
- Comparisons of financial data over multiple years can be limited due to changes in generally accepted accounting principles (GAAP) and adjustments to the guidelines that govern the reporting of the data.
- In certain situations, most notably in our case, an institution receives funds and subsequently disburses or transfers all or part of the funds to one or more related or affiliated entities that are included in the annual return.

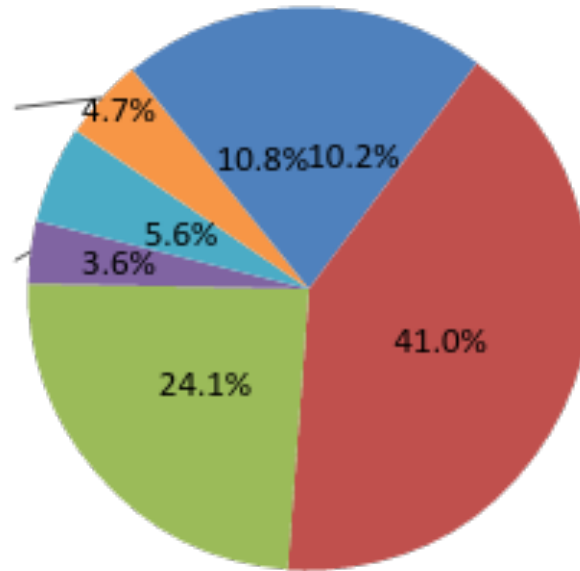
# Canadian Context: Funding HE



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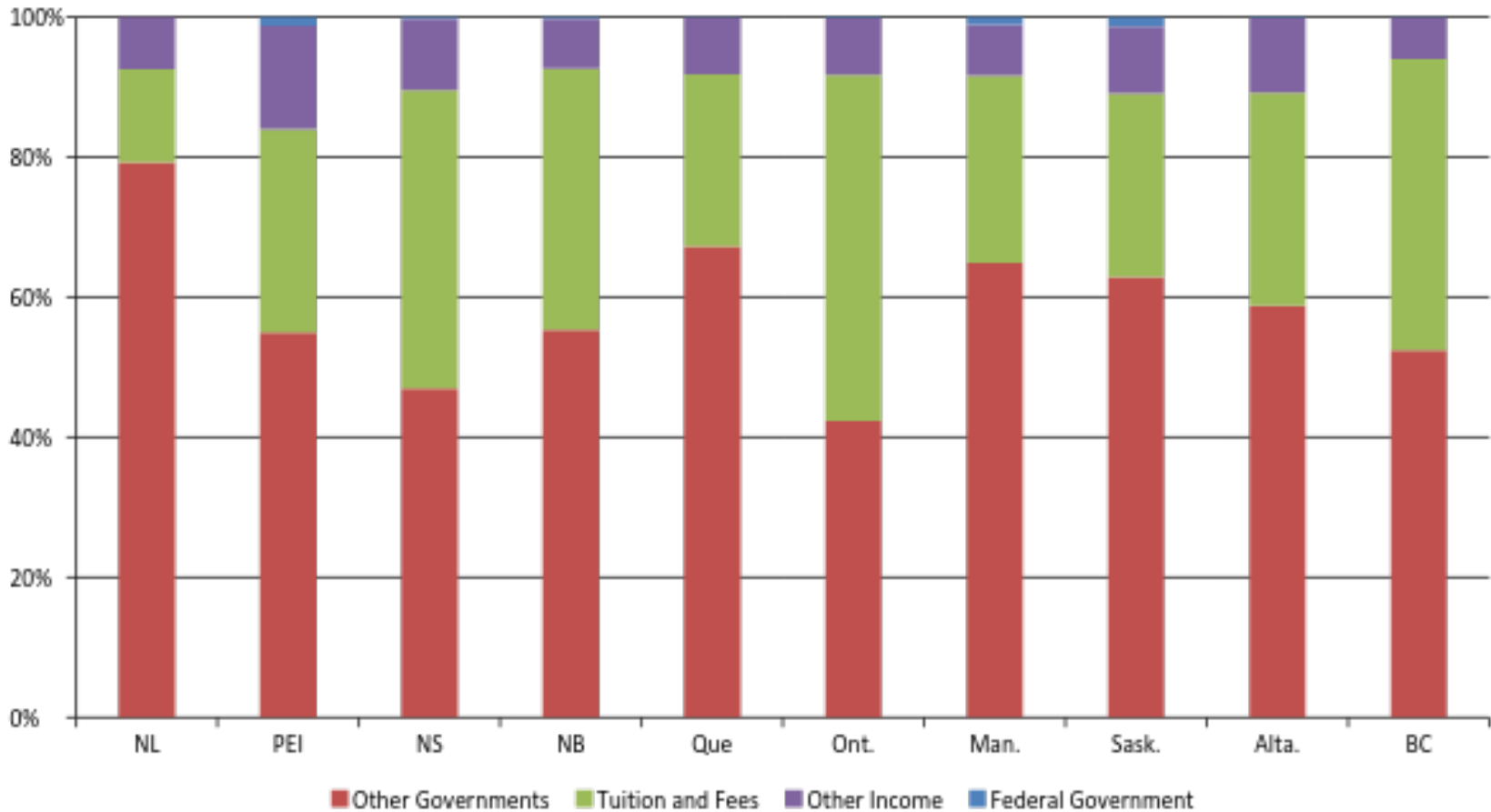
# Funding Canadian HE



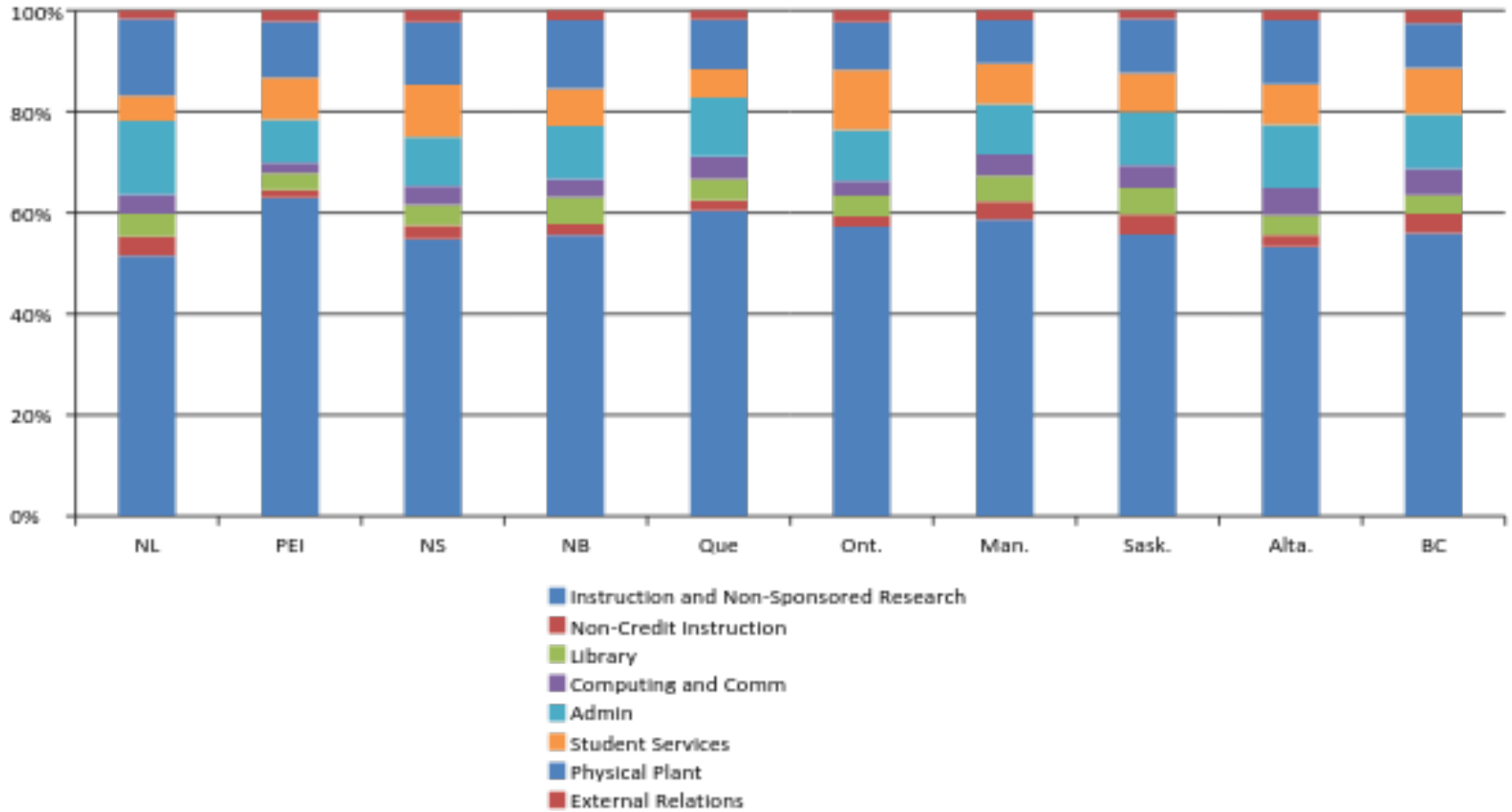
- Federal Government
- Other Governments
- Donations



# Operating Income



# Operating Expenditures by Function



# Regression Analysis

- Use of regression analysis provides us with a model for comparing ourselves to “national norms” rather than on an “institution-to-institution” basis.
- Primary focus of the analysis to date has been on operating expenditures and how we fair in terms of performance relative to other institutions.

# Fund Accounting:

- Fund Accounting: classifies resources for accounting and reporting purposes in accordance with activities or objectives as specified by donors, in accordance with regulations, restrictions or limitations imposed by sources outside the institution, or in accordance with directions issued by the governing body of the institution.
- A fund is an accounting entity with a self-balancing set of accounts for recording assets, liabilities, a fund balance, and changes in the fund balance. For all funds the matching principle applies; that is the revenue and related expenditure should be recorded in the same fund.
- It is not as straightforward to decide whether the revenue or expenditure source should dictate the fund where they are recorded. Depending upon the fund, there is not one method that says that expenditures should be recorded in the same fund as the revenue (expenditures follow revenues) or vice versa (revenues follow expenditures).
- Funds have been identified as either unrestricted or restricted.
- Unrestricted: general operating, ancillary
- Restricted: special purpose and trust, sponsored research, capital and endowment.

# OPERATING EXPENDITURES by FUNCTION

- Operating Expenditures
- Administration Expenditures
- Administration Expenditures + External Relations
- Instruction and Non-Sponsored Research (Credit Instruction)
- Non-Credit Instruction
- Credit Instruction + Non-credit Instruction
- Library
- Computing
- Student Services
- Physical Plant

# Building the dataset

- Name matching – list of institutions contributing to AUCC enrollment statistics matched with institutions participating in CAUBO survey.
- AUCC provides head count data (Full-time/Part-time, Undergraduate/Graduate).  $FTE = FT + PT/3.5$ .
- Convert CAUBO database (MS Access) & populate desired fields for comparison.

# Federated and Affiliated College Structures

- Varied reporting by institutions with federated or affiliated college structures.
- Multi-campus institutions report as a whole.
- Many, but not all institutions with a federated/affiliated college structure report enrollment data or financial data collectively.
- Produce two data sets for analysis. One that combines enrollment and financial data that includes both the parent institution and their federated/affiliated “children”. Another that excludes them from the calculation.

## Comparison of U Regina Expenditures to Regressed CAUBO "National Norms"

### U Regina Comparison to National Norms

<i>All \$ in Thousands</i> <b>Target Value</b>	Driving Variable (denominator)		Actual	national	Actual as % of			
(numerator)	independant (x)	predictor	dependnt	norm	national	R-square	intercept	slope
dependant (y) variable	variable	value	value	value	norm			

#### July 2014 Analysis:

##### Without FED

<b>Operating Expenditures</b>	AUCC FTE Students	9,359	\$169,455	\$173,708	97.6%	0.922992	-23678.1	21.09146
<b>Admin + Ext Exp.</b>	AUCC FTE Students	9,359	\$23,865	\$22,903	104.2%	0.874087	166.6352	2.429444
<b>Admin Expenses only</b>	AUCC FTE Students	9,359	\$20,832	\$19,282	108.0%	0.858304	860.6334	1.968398
<b>Credit Instruction</b>	AUCC FTE Students	9,359	\$83,406	\$98,068	85.0%	0.913653	-18334.2	12.43809
<b>All Instruction</b>	AUCC FTE Students	9,359	\$89,832	\$102,780	87.4%	0.913502	-17569.3	12.85978

<b>Admin Expenses only</b>	Operating Expendit	\$169,455	\$20,832	\$18,962	109.9%	0.910286	3315.532	0.092337
<b>Admin + Ext Exp.</b>	Operating Expendit	\$169,455	\$23,865	\$22,461	106.3%	0.936971	3045.612	0.114574
<b>Instruct. (credit) Exp.</b>	Operating Expendit	\$169,455	\$83,406	\$95,517	87.3%	0.991758	-4509.04	0.59028
<b>All Instruct. Exp.</b>	Operating Expendit	\$169,455	\$89,832	\$100,108	89.7%	0.992979	-3380.8	0.610718
<b>Library Exp.</b>	Operating Expendit	\$169,455	\$8,395	\$6,954	120.7%	0.928702	-475.569	0.043845
<b>Computing Exp.</b>	Operating Expendit	\$169,455	\$7,559	\$7,117	106.2%	0.759684	1488.78	0.033211
<b>Student Services</b>	Operating Expendit	\$169,455	\$17,959	\$15,600	115.1%	0.860404	-750.379	0.096489
<b>Physical Plant Exp.</b>	Operating Expendit	\$169,455	\$21,845	\$17,215	126.9%	0.951638	72.35306	0.101162

Source CAUBO (FY 2012-13) - CAUBO University General Operating Expenditures by Function: [http://www.caubo.ca/resources/publications/financial\\_information\\_univers](http://www.caubo.ca/resources/publications/financial_information_univers)

Source AUCC (Fall enrolment for 2012 = FY2012-13) - <http://www.aucc.ca/canadian-universities/facts-and-stats/enrolment-by-university> \*



## Comparison of U Regina Expenditures to Regressed CAUBO "National Norms"

### U Regina Comparison to National Norms

All \$ in Thousands		Driving Variable			Actual			
Target Value (numerator) dependant (y) variable	(denominator) independant (x) variable	predictor value	Actual dependnt value	national norm value	as % of national norm	R-square	intercept	slope

#### July 2014 Analysis:

##### With FED

<b>Operating Expenditures</b>	AUCC FTE Students	10,999	\$197,686	\$206,120	95.9%	0.93948	-20818.8	20.63352
<b>Admin + Ext Exp.</b>	AUCC FTE Students	10,999	\$30,051	\$26,910	111.7%	0.884516	669.4981	2.385789
<b>Admin Expenses only</b>	AUCC FTE Students	10,999	\$26,794	\$22,574	118.7%	0.866018	1434.336	1.922042
<b>Credit Instruction</b>	AUCC FTE Students	10,999	\$97,823	\$116,941	83.7%	0.932301	-16185.5	12.10395
<b>All Instruction</b>	AUCC FTE Students	10,999	\$104,249	\$122,261	85.3%	0.932777	-15402	12.51648
<b>Admin Expenses only</b>	Operating Expendi	\$197,686	\$26,794	\$21,798	122.9%	0.918226	3418.829	0.09297
<b>Admin + Ext Exp.</b>	Operating Expendi	\$197,686	\$30,051	\$25,926	115.9%	0.944063	3037.363	0.115784
<b>Instruct. (credit) Exp.</b>	Operating Expendi	\$197,686	\$97,823	\$111,999	87.3%	0.991964	-3943.76	0.586499
<b>All Instruct. Exp.</b>	Operating Expendi	\$197,686	\$104,249	\$117,140	89.0%	0.993204	-2799.08	0.606713
<b>Library Exp.</b>	Operating Expendi	\$197,686	\$9,359	\$8,184	114.4%	0.929506	-603.305	0.044453
<b>Computing Exp.</b>	Operating Expendi	\$197,686	\$8,686	\$8,063	107.7%	0.753176	1611.699	0.032632
<b>Student Services</b>	Operating Expendi	\$197,686	\$20,035	\$18,291	109.5%	0.865624	-723.745	0.096186
<b>Physical Plant Exp.</b>	Operating Expendi	\$197,686	\$25,306	\$20,082	126.0%	0.952768	-522.937	0.104232

Source CAUBO (FY 2012-13) - CAUBO University General Operating Expenditures by Function: [http://www.caubo.ca/resources/publications/financial\\_information\\_universi](http://www.caubo.ca/resources/publications/financial_information_universi)

Source AUCC (Fall enrolment for 2012 = FY2012-13) - <http://www.aucc.ca/canadian-universities/facts-and-stats/enrolment-by-university> \*

## Comparison of U Regina Expenditures to Regressed CAUBO "National Norms"

### U Regina Comparison to National Norms

All \$ in Thousands

Target Value (numerator) dependant (y) variable	U Regina			Actual Brand A			Actual Brand B			Actual		
	Actual dependnt value	national norm value	as % of national norm	Actual dependnt value	national norm value	as % of national norm	Actual dependnt value	national norm value	as % of national norm	Actual dependnt value	national norm value	as % of national norm

#### July 2014 Analysis:

##### AUCC Students

<b>Operating Expenditures</b>	\$169,455	\$173,708	97.6%	\$209,375	\$177,625	117.9%	\$237,357	\$279,075	85.1%
<b>Admin + External</b>	\$23,865	\$22,903	104.2%	\$23,244	\$23,354	99.5%	\$33,992	\$35,040	97.0%
<b>Admin Expenses only</b>	\$20,832	\$19,282	108.0%	\$19,918	\$19,648	101.4%	\$30,149	\$29,116	103.5%
<b>Credit Instruction</b>	\$83,406	\$98,068	85.0%	\$115,410	\$100,378	115.0%	\$132,034	\$160,206	82.4%
<b>All Instruction</b>	\$89,832	\$102,780	87.4%	\$122,944	\$105,168	116.9%	\$135,783	\$167,024	81.3%
<b>Operating Expenditures</b>									
<b>Admin Expenses only</b>	\$20,832	\$18,962	109.9%	\$19,918	\$22,648	87.9%	\$30,149	\$25,232	119.5%
<b>Admin + External</b>	\$23,865	\$22,461	106.3%	\$23,244	\$27,034	86.0%	\$33,992	\$30,240	112.4%
<b>Credit Instruction</b>	\$83,406	\$95,517	87.3%	\$115,410	\$119,081	96.9%	\$132,034	\$135,598	97.4%
<b>All Instruction</b>	\$89,832	\$100,108	89.7%	\$122,944	\$124,488	98.8%	\$135,783	\$141,577	95.9%
<b>Library</b>	\$8,395	\$6,954	120.7%	\$12,163	\$8,705	139.7%	\$11,840	\$9,931	119.2%
<b>Computing</b>	\$7,559	\$7,117	106.2%	\$6,691	\$8,442	79.3%	\$8,831	\$9,372	94.2%
<b>Student Services</b>	\$17,959	\$15,600	115.1%	\$15,300	\$19,452	78.7%	\$24,279	\$22,152	109.6%
<b>Physical Plant</b>	\$21,845	\$17,215	126.9%	\$29,033	\$21,253	136.6%	\$22,632	\$24,084	94.0%

Source CAUBO (FY 2012-13) - CAUBO University General Operating Expenditures by Function; [http://www.caubo.ca/resources/publications/financial\\_information\\_universities](http://www.caubo.ca/resources/publications/financial_information_universities) )

Source AUCC (Fall enrolment for 2012 = FY2012-13) - <http://www.aucc.ca/canadian-universities/facts-and-stats/enrolment-by-university> \*

# Questions or Comments?

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