Spring 2015

CAUT EducationReview

Trends in University Finances in the New Millennium, 2000/01–2012/13

Since the turn of the 21st century, universities in Canada have undergone significant changes. Student enrolment has exploded. Between 2000/01 and 2012/13, the number of full-time equivalent students in universities grew from 676,000 to 1,050,000, an increase of 55%. The number and proportion of international students in universities have doubled during the same period, from 45,800 to 132,000, or from 5% to 10% of total university students. The number of academic staff has also increased, but the growth in full-time positions has not matched the increase in student numbers. Between 2000/01 and 2012/13, the number of full-time permanent university professors increased by 32%. Meanwhile, the number of part-time and temporary academic staff grew by 69% and 49% respectively, and the number of international visiting professors or lecturers increased by 66% since 2004. These changes took place while the population, aged between 17 and 24 years, which makes up the bulk of post-secondary students, grew by only 15% since 2000.

Meanwhile, the economy experienced moderate growth until 2007, and contracted immediately following the 2008 financial crisis. Most provinces and the federal government were running surpluses between fiscal year 2000/01 and 2007/08, but many governments decided to use the surplus at the time to cut taxes rather than boost investment in infrastructure and public services. The federal goods and services tax (GST) was reduced from 7% to 5%, and the combined federal and provincial corporate tax rate was slashed from 42.4% in 2000 to 26.3% in 2013. The federal government and all the provinces except one were running deficits after the financial crisis, but projections now put most provinces and the federal government back into surplus territory by 2016/17. Despite this and the fact that interest rates remain near historic lows, many provincial and the federal governments are still imposing austerity measures to fund promised tax cuts, like income splitting at the federal level, and to reduce the size of government. For instance, the total revenues of the federal government as a share of the economy were reduced from 17.7% in 2000/01, to 14.1% in 2012/13.

In this context, how have university finances been affected by these changes? What have been the general trends in revenues? Have revenues been growing or decreasing when growth in student enrolment is considered? Who pays for our university system today? What have been the trends in university expenditures? What happened with compensation of academic staff, and administrators? This report considers these questions in light of some of the major trends in Canadian university finances between 2000 and 2013.

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Table 1
University Revenues by Source, Adjusted for Inflation, Canada ($000s)

	2011/12	2011/12 (Adjusted)	2012/13	% Change 2011/12-2012/13
Total Revenue	31,521,032	31,805,939	33,232,811	4.5
Operating Revenue	19,647,153	19,824,736	20,703,553	4.4
Sponsored Research	6,743,664	6,804,617	6,811,205	0.1
Capital Revenue	1,349,346	1,361,542	1,024,988	-24.7
Total Provincial Revenue	13,240,918	13,360,598	13,340,935	-0.2
Provincial Operating Revenue	10,681,659	10,778,206	10,905,360	1.2
Tuition Revenue	7,371,838	7,438,469	8,004,394	7.6

Table 2
Percentage Change in University Revenues, 2011/12 to 2012/13

	Total Revenue	Operating Revenue	Sponsored Research	Capital Revenue	Total Provincial Revenue	Provincial Operating Revenue	Tuition Revenue
Canada	4.5	4.4	0.1	-24.7	-0.1	1.2	7.6
Newfoundland & Labrador	3.4	3.6	18.3	-15.1	2.8	2.9	4.2
Prince Edward Island	-1.8	1.5	8.4	1.7	-8.7	-11.7	4.1
Nova Scotia	2.8	2.1	-2.5	14.4	-0.7	-1.2	5.5
New Brunswick	2.9	3.0	-4.8	-6.0	-2.3	1.2	4.0
Quebec	-1.3	1.5	-5.3	-31.5	-2.7	-1.0	6.5
Ontario	7.7	4.9	4.6	-8.0	0.9	0.1	8.0
Manitoba	0.0	1.8	-13.9	0.2	6.4	3.9	6.3
Saskatchewan	7.4	4.7	-6.7	23.8	5.2	2.0	7.9
Alberta	7.9	12.4	0.4	-61.0	2.4	9.9	14.9
British Columbia	2.2	2.3	0.2	35.3	-4.1	-0.5	4.0

General Trends in University Revenues

Canadian university revenues, including all transfers from provinces, research funding from the federal government, tuition and other fees, and revenues from investments, hit an all-time high of $33.2 billion in fiscal 2012/13, an increase of 4.5% adjusted for inflation over the previous year, according to data released by Statistics Canada from the *Financial Information of Universities and Colleges* (FIUC) survey.†

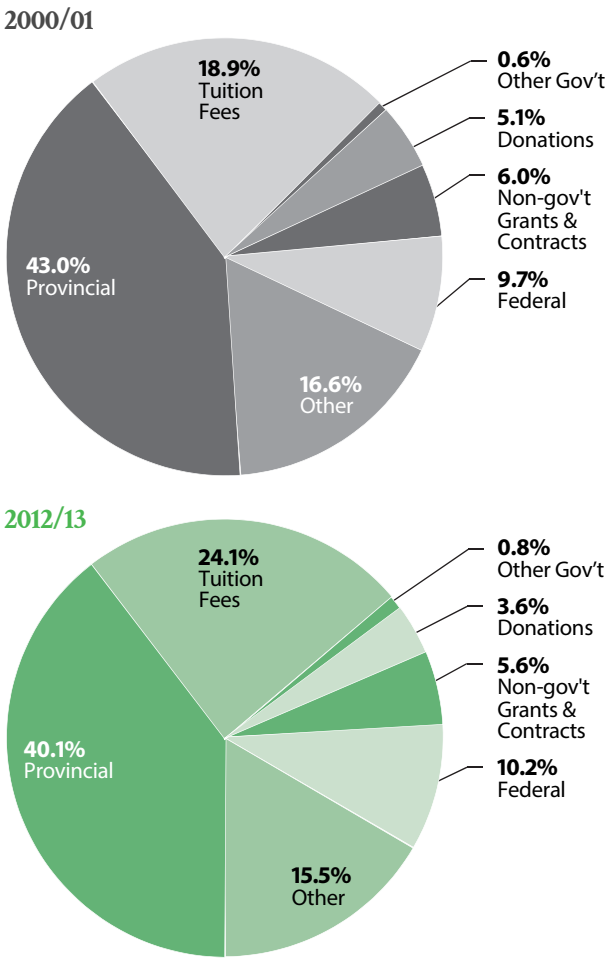
Tables 1 and 2 report the year-over-year change in revenues in Canada and by province for 2011/12 to 2012/13, adjusted for inflation. Nationally, operating revenues, or revenues designated for the core teaching and research functions of institutions, were up by 4.4% in 2012/13, from $19.8 to $20.7 billion. Revenues received for sponsored research, primarily from the federal government, remained flat compared to the previous year, inching ahead by just 0.1%. Revenues allocated to capital stock expenditures (i.e., new building construction and renovations) decreased by 24.7% in 2012/13. Year-over-year total provincial revenues declined by 0.1%, while provincial operating revenues were only up by 1.2% overall. Most of the increase in revenues in the last year came from increased tuition fees. Total revenues across Canada from tuition in 2012/13 amounted to $8 billion, up from $7.4 billion in the previous year, an increase of 7.6%

There are significant variations in revenues between provinces. As shown in table 2, there were notably higher increases in revenues in Alberta, Saskatchewan, and Ontario. Total revenues were up 7.9% in Alberta and 7.7% in Ontario, but down in Quebec and PEI between 2011/12 and 2012/13. Revenues from tuition fees were up in all provinces, varying from a 4% increase in New Brunswick and British Columbia, to 14.9% in Alberta.

Trends in Revenues since 2000/01

Table 3 illustrates the percentage change in university revenues between 2000/01 and 2012/13, after inflation. Overall, total revenues in Canada increased by 66.2% during this period, an average of 5.5% per year. Nationally, both total provincial revenues and provincial operating revenues increased at a slower rate than the overall total (55.1% and 59.5% respectively). It is worth noting that, nationally, revenues devoted to capital stock renewal and renovations declined by -4.0% between 2000/01 and 2012/13.

Figure 1
University Revenues by Source, Canada (2013$)



† The sources for all data reported in this paper are from: Centre for Education Statistics at Statistics Canada, PSIS The annual *Financial Information of Universities and Colleges* (FIUC) survey Statistics Canada, Labour Force Survey, Custom tabulation purchased by CAUT.

Table 3
Percentage Change in University Revenues, 2000/01 to 2012/13

	Total Revenue	Operating Revenue	Sponsored Research	Capital Revenue	Total Provincial Revenue	Provincial Operating Revenue	Tuition Revenue
Canada	66.2	78.3	63.5	-4.0	55.1	59.5	111.8
Newfoundland & Labrador	107.2	96.5	197.0	123.5	170.1	125.7	0.0
Prince Edward Island	71.7	59.9	168.1	373.8	21.6	11.4	72.4
Nova Scotia	41.5	52.2	59.4	-39.3	43.5	51.2	59.7
New Brunswick	37.1	35.6	74.1	196.0	27.8	25.1	51.6
Quebec	44.1	51.3	51.3	-16.1	39.1	45.0	90.2
Ontario	77.0	92.4	64.6	-17.7	53.5	60.9	125.2
Manitoba	35.8	51.5	11.3	106.0	45.2	48.2	53.7
Saskatchewan	47.8	77.9	24.2	-47.5	44.9	81.5	61.7
Alberta	90.2	115.9	47.0	-3.7	113.2	122.8	111.3
British Columbia	76.3	78.1	143.7	59.1	47.3	37.6	171.6

Table 4
FTE University Enrolment

	2000/01	2012/13	% Change
Canada	676,038	1,049,605	55.3
Newfoundland & Labrador	13,669	15,752	15.2
Prince Edward Island	2,828	3,909	38.2
Nova Scotia	32,023	38,622	20.6
New Brunswick	19,759	19,870	0.6
Quebec	166,392	227,799	36.9
Ontario	264,317	445,388	68.5
Manitoba	24,464	37,809	54.6
Saskatchewan	26,527	30,633	15.5
Alberta	63,236	108,223	71.1
British Columbia	62,823	121,600	93.6

The most significant change in university revenues between 2000/01 and 2012/13 was an increase in revenues from tuition and associated fees of 111.8% nationally, an average of 9.3% per year. The proportion of total university revenues derived from tuition and associated fees increased by 27.4% between 2000/01 and 2012/13. As shown in Figure 1, tuition and associated fees accounted for 24.1% of total university revenues in 2012/13, up from 18.9% in 2000/01. Meanwhile, the proportion of revenues from provincial governments is down, from 43% to 40.1%.

Figure 2, below, illustrates the impact that increases in tuition costs have had on university funding since the beginning of this century. Over this period, funding for the operating revenues for universities from government sources declined from 59.3% to 52.1%. In contrast, the proportion of operating revenues that are sourced from student tuition and associated fees increased from 32.6% to 38.7%. In contrast to this, in 1978/79, revenues from tuition accounted for only 13.4% of university operating revenues. This continues a long-term trend which has seen government funding for the operating portion of university revenues drop from a high of 84.2% in 1978/79 to the current level of 52.1%. This trend constitutes a major transfer of the responsibility for financing post-secondary education from the public to the private spheres.

University Enrolment & Operating Revenues per Student

Student enrolment has risen significantly since 2000/01. Table 4 presents full-time equivalent (FTE) university enrolment figures in 2000/01 and 2012/13. Between 2000/01 and 2012/13 FTE enrolment in Canada increased by 55.3%. There are now more than 1 million FTE students enrolled in Canadian universities.

Figure 2
Government Funding and Tuition as a Share of University Operating Income, Canada

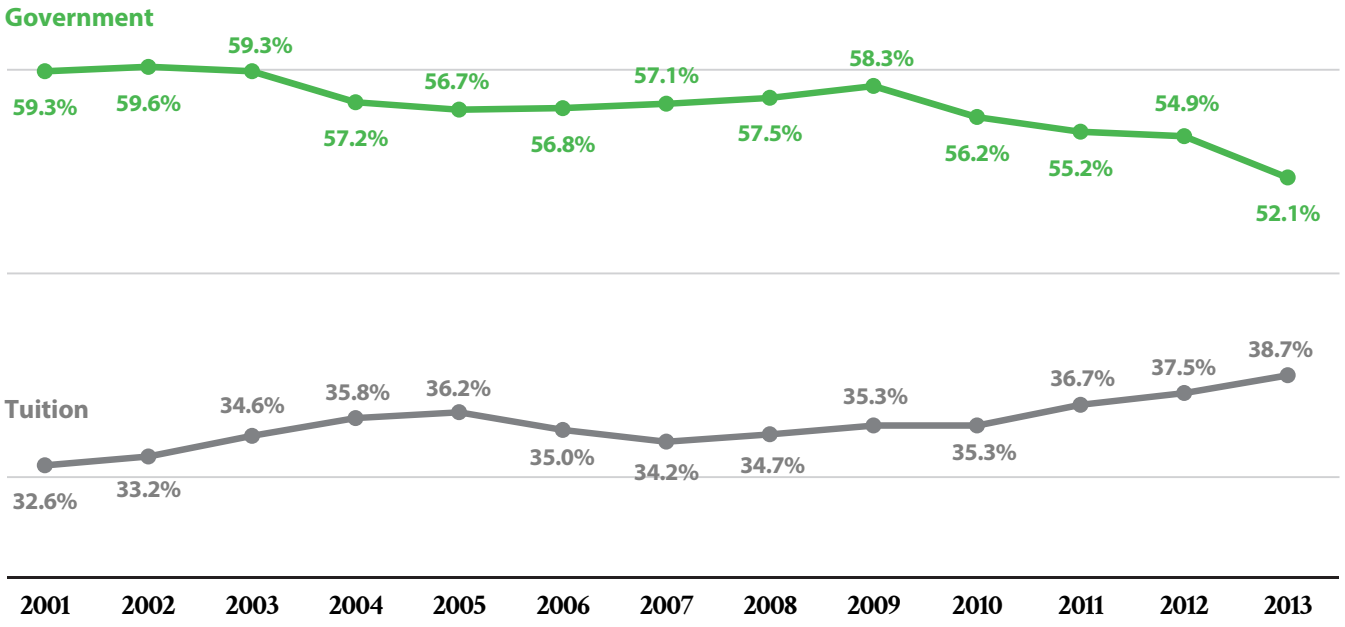


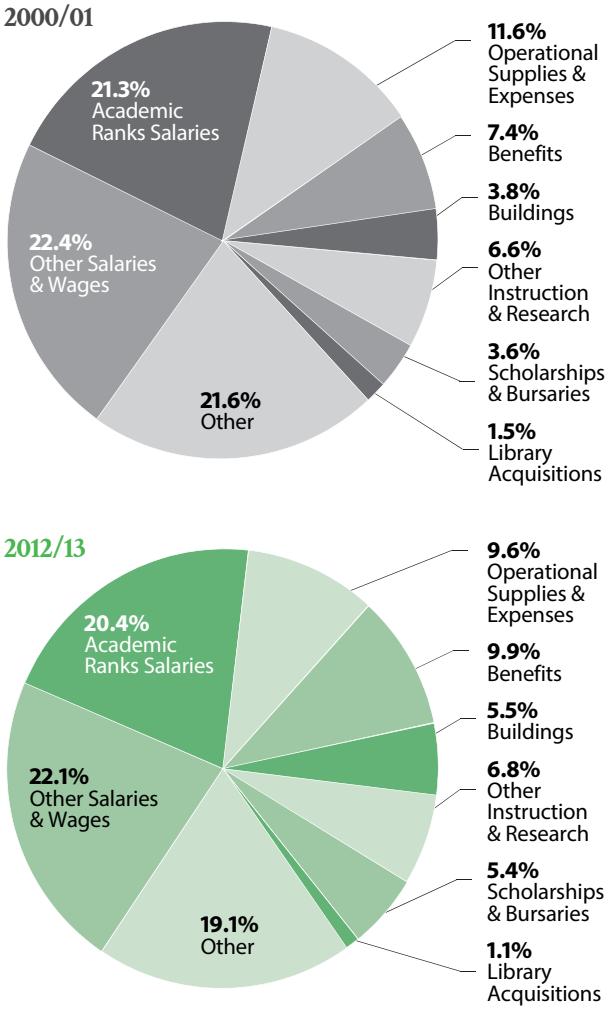
Table 5
University Operating Revenue per FTE Student (2013$)

	2000/01	2011/12	2012/13	% Change 2011-2013	% Change 2000-2013
Canada	17,172	19,218	19,725	2.6	14.9
Newfoundland & Labrador	17,523	29,112	29,876	2.6	70.5
Prince Edward Island	22,702	25,502	26,267	3.0	15.7
Nova Scotia	16,830	21,140	21,239	0.5	26.2
New Brunswick	14,986	19,459	20,212	3.9	34.9
Quebec	15,414	17,169	17,034	-0.8	10.5
Ontario	16,886	18,812	19,278	2.5	14.2
Manitoba	18,663	18,793	18,292	-2.7	-2.0
Saskatchewan	15,731	24,102	24,228	0.5	54.0
Alberta	18,200	20,743	22,959	10.7	26.2
British Columbia	22,558	19,903	20,751	4.3	-8.0

Table 6
Percentage Change in University Expenditures, Canada (2013$, 000s)

	2011/12	2012/13	% Change
Total Expenditures	31,818,148	32,083,515	0.8
All Salaries, Wages & Benefits	18,383,675	19,027,409	3.5
Academic Rank Salaries	6,327,494	6,559,776	3.7
Buildings & Site Services	2,142,774	1,772,168	-17.3
Scholarships & Bursaries	1,660,219	1,721,338	3.7
Supplies & Expenses	3,027,172	3,095,420	2.3
Debt Repayments (Interest only)	558,315	530,211	-5.0
Other	6,266,131	6,120,660	-2.3

Figure 3
Percentage of Total University Expenditures by Categories, Canada



Adjusting for the increase in student numbers reveals important trends in university finances over the past decade. Table 5 presents university operating revenues on a per full-time equivalent student for 2000/01, 2011/12 and 2012/13, adjusted for inflation. In 2012/13, operating revenues per FTE student in Canada averaged $19,725. On a year-over-year basis, operating revenue per FTE student in Canada increased 2.6% between 2011/12 and 2012/13, after inflation. Overall, between 2000/01 and 2012/13, university operating revenues per FTE student rose by 14.9%, or an average of just 1.2% per year. As a result, despite a significant increase in overall operating revenues during this period, most of the increased funding was absorbed by a large increase in FTE enrolment.

Table 5 also presents university operating revenues per FTE student for each province. Once again, there is significant provincial variation related to different public policy decisions and priorities. For example, FTE student operating revenues rose by more than 70% in Newfoundland and Labrador, while they fell by 8.0% and 2.0% respectively in British Columbia and Manitoba.

In summary, total university revenues are up since the beginning of the 21st century. However, operating revenues have increased by only 1.2% per year when growth in student enrolment and inflation are considered. A large part of the growth in revenues comes from higher tuition fees. Since 2000/01, revenues from tuition fees have increased more rapidly than other sources of revenues, and tuition fees now represent about one out of every four dollars received by universities to pay for their operations, compared to less than one out of every five dollars in 2000/01.

Trends in University Expenditures

Total expenditures by universities in Canada, including salaries and benefits, scholarships, libraries and building construction and maintenance, were $32.1 billion in 2012/13, a marginal increase of 0.8% over 2011/12. The main component of university expenditures is salaries, wages and benefits. They represented 52.6% of total non-capital spending in 2012/13. Spending on salaries, wages and benefits as a share of total expenditures have increased by 3.5% in 2012/13, as shown in Table 6. Expenditures on academic rank salaries rose by 3.7% in 2012/13. Nationally, spending on scholarships and bursaries increased by 3.7% in 2012/13. In the capital expenditures category, spending on buildings and renovations dropped by -17.3% in 2012/13, whereas spending on supplies and expenses rose by 2.3%.

Table 7

Percentage Change in University Expenditures, 2000/01 to 2012/13 (2013$)

	Total Expenditures	All Salaries, Wages & Benefits	Academic Rank Salaries	Buildings & Site Services	Scholarships & Bursaries	Supplies & Expenses	Debt Repayments (Interest Only)	Other
Canada	70.5	74.8	63.3	147.1	152.9	42.0	48.8	48.3
Newfoundland & Labrador	117.0	93.4	76.1	712.5	74.2	39.4	596.8	78.0
Prince Edward Island	74.6	87.5	68.6	142.2	420.0	17.3	738.5	32.9
Nova Scotia	42.8	41.8	35.7	130.5	131.7	21.3	174.2	22.5
New Brunswick	32.8	35.5	31.1	59.3	103.9	10.6	57.3	20.4
Quebec	51.3	54.0	50.5	221.9	255.8	11.8	-16.4	53.2
Ontario	79.1	87.1	75.4	160.8	130.7	38.3	184.8	52.1
Manitoba	57.4	46.4	53.1	460.0	392.4	65.1	1,134.6	2.3
Saskatchewan	59.3	54.0	32.8	30.0	231.6	94.0	718.2	52.0
Alberta	89.7	109.7	99.6	27.7	121.8	118.5	142.8	49.6
British Columbia	80.1	79.3	59.9	327.0	127.0	71.2	147.1	52.0

Table 8

Expenditures per FTE Student, Canada (2013$)

	2000/01	2012/13	% Change	Average % Change/Year
Total Expenditures	27,840	30,567	9.8	0.8
Academic Rank Salaries	5,943	6,250	5.2	0.4
Other Instruction & Research	1,851	2,089	12.8	1.1
Other Salaries & Wages	6,247	6,754	8.1	0.7
Benefits	2,057	3,036	47.6	4.0
Library Acquisitions	424	330	-22.1	-1.8
Operational Supplies & Expenses	3,224	2,949	-8.5	-0.7
Scholarships & Bursaries	1,007	1,640	62.9	5.2
Buildings	1,061	1,688	59.2	4.9
Other	6,026	5,831	-3.2	-0.3

Table 7 illustrates the changes in university expenditures since 2000/01. Total university expenditures in Canada, measured in constant dollars, increased by 70.5% between 2000/01 and 2012/13. Spending on academic rank salaries lagged behind, with an increase of 63.3% during this period. The largest percentage increase in university spending since 2000/01 has been to provide students with scholarships and bursaries. Nationally, funding for scholarships and bursaries increased by 152.9% between 2000/01 and 2012/13, or by more than $1 billion in constant 2013 dollars.

As well as the major increase in spending reported on scholarships and bursaries, expenditures on buildings and renovations rose strongly over the period under review. In spite of a downturn in spending on capital stock in 2012/13 of -17.3%, overall expenditures increased by 147.1% nationally between 2000/01 and 2012/13. The large increase in spending on capital stock was in response to the pent up demand for new buildings and renovations that had built up in the preceding period.

Figure 3 illustrates how spending by category has changed between 2000/01 and 2012/13. As outlined earlier, expenditures associated with wages are down while costs linked to scholarships and building maintenance are up. It is also important to note that in the last two decades, the cost of benefits, such as health and pensions, has been rising due to an ageing workforce, inflation in the cost of drugs and in low interest rates for defined benefit pension plans. This is not special to universities, but present in all sectors across Canada.

Expenditures per Student & per Academic Staff

To better assess trends in university expenditures, we adjust for FTE student and full-time equivalent academic staff. Table 8 reports the change in university expenditures per FTE student, in constant 2013$. Table 9 presents expenditures per FTE university teacher.

Although total expenditures increased by 70.5% between 2000/01 and 2012/13, when reported on the basis of spending per FTE student, the real increase in expenditure per student during that period of time was only 9.8% (Table 8). When measured on a per FTE teacher basis, total expenditures increased by just 3.2% (Table 9). While average yearly increases in total expenditures amounted to 5.9% since 2000/01, spending

Table 9
Expenditures per FTE Academic Staff, Canada (2013$)

	2000/01	2012/13	% Change	Average % Change/Year
Total Expenditures	495,279	510,884	3.2	0.3
Academic Rank Salaries	105,736	104,455	-1.2	-0.1
Other Instruction & Research	32,929	34,910	6.0	0.5
Other Salaries & Wages	111,144	112,879	1.6	0.1
Benefits	36,596	50,740	38.6	3.2
Library Acquisitions	7,535	5,518	-26.8	-2.2
Operational Supplies & Expenses	57,350	49,290	-14.1	-1.2
Scholarships & Bursaries	17,911	27,410	53.0	4.4
Buildings	18,871	28,219	49.5	4.1
Other	107,206	97,463	-9.1	-0.8

Figure 4
Academic Rank Salaries as a Percentage of Total Expenditures, Canada

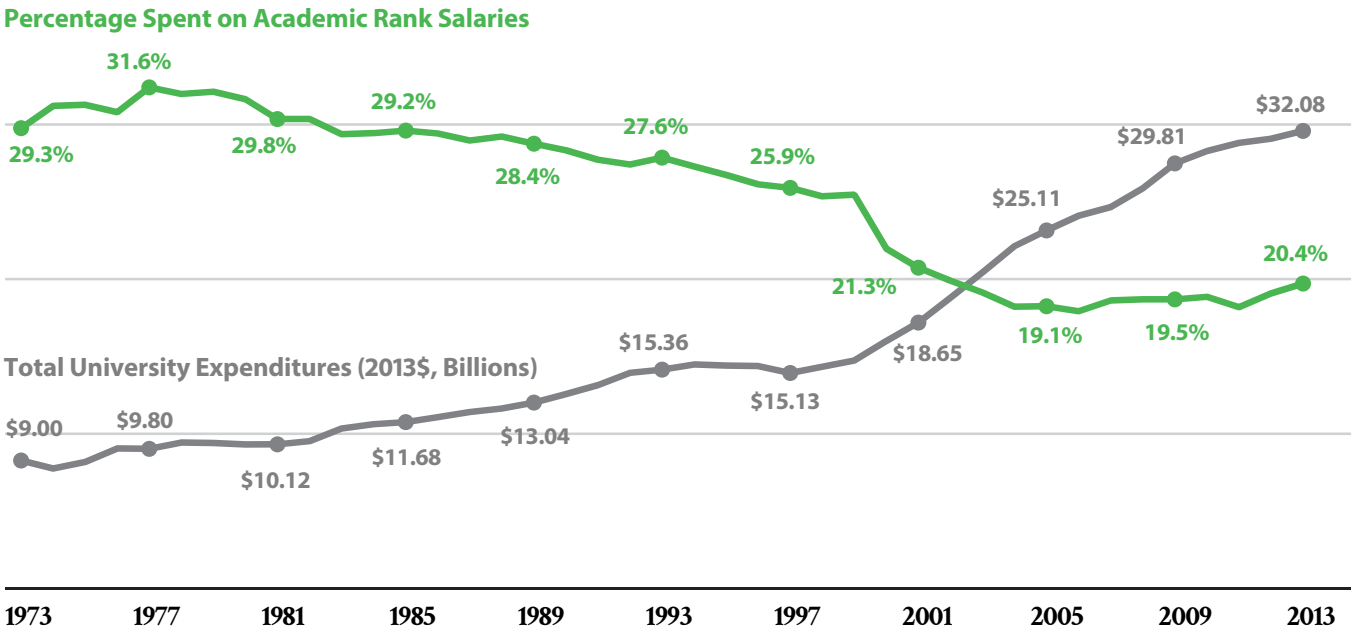
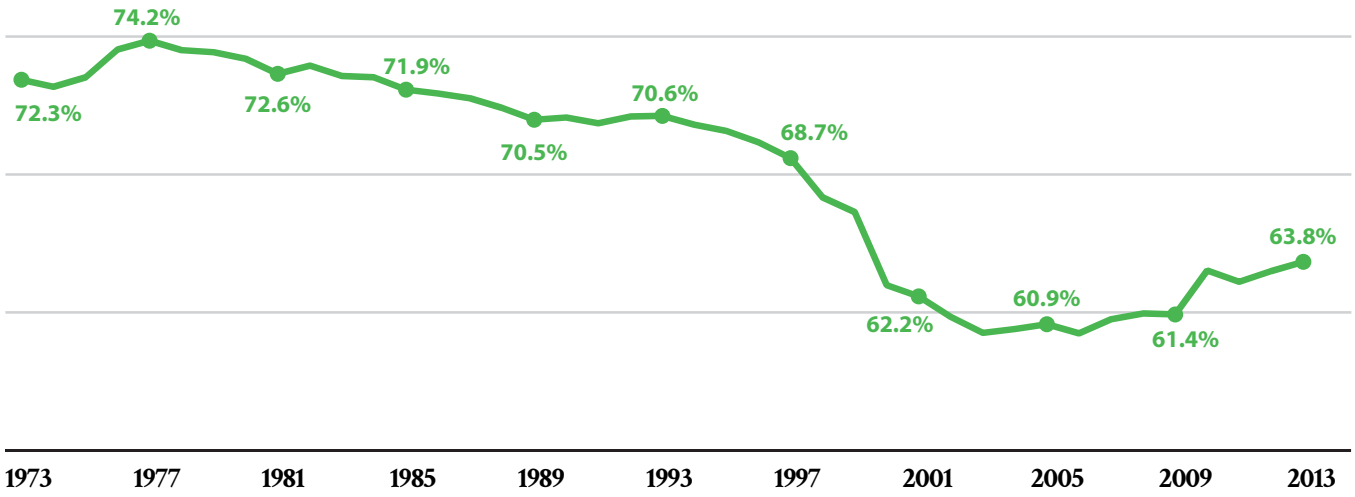


Figure 5
Salaries, Wages and Benefits as a Percentage of Total Non-Capital Expenditures, Canada



per FTE student increased by just an average of 0.8% per year (Table 8), and 0.3% per year on a per FTE teacher basis (Table 9).

The largest percentage increases in spending per FTE student between 2000/01 and 2012/13 were for scholarships and bursaries (62.9%), buildings (59.2%) and employee benefits (47.6%). Spending on library acquisitions (-22.1%) was the only area of university expenditures that experienced a significant decline in per student spending.

As illustrated in Table 7, spending on academic rank salaries increased by 63.3% between 2000/01 and 2012/13. However, when adjusted on a FTE university teacher basis, spending on academic rank salaries actually decreased by 1.2% over this period.. It should be noted that over this time period, there has been a significant increase in the number of Contract Academic Staff in Canadian universities. Contract Academic Staff are generally paid less than their full time counterparts. Since there was an increase in the share of university teachers paid on a per course or limited-term basis, the decrease in expenditures related to academic rank salaries per university teacher can be somewhat attributed to a deterioration of job security and related compensation of university teachers in recent years.

Figures 4 and 5 illustrate how spending on academic rank salaries and total wages and benefits has changed since 1971/72, reported in constant 2013 dollars. Spending on academic rank salaries as a proportion of total expenditures (Figure 4) peaked in 1977 at 31.6%. That was followed by a slow, steady decline which accelerated between 1999 and 2006. Expenditures on academic rank salaries were flat throughout most of the 2000s, with only modest growth since 2011. Figure 4 also demonstrates the consistent growth in total university expenditures over the same period. While total expenditures grew steadily until the mid-1990s, since 2000 they have almost doubled, measured in constant dollars. Clearly, as university revenues and expenditures have grown steadily over the past four decades, the long term trend is for a smaller share of total expenditures to be directed to faculty salaries.

Figure 6
Non-Academic Salaries and Wages as a Percentage of Total Salaries and Wages, Canada

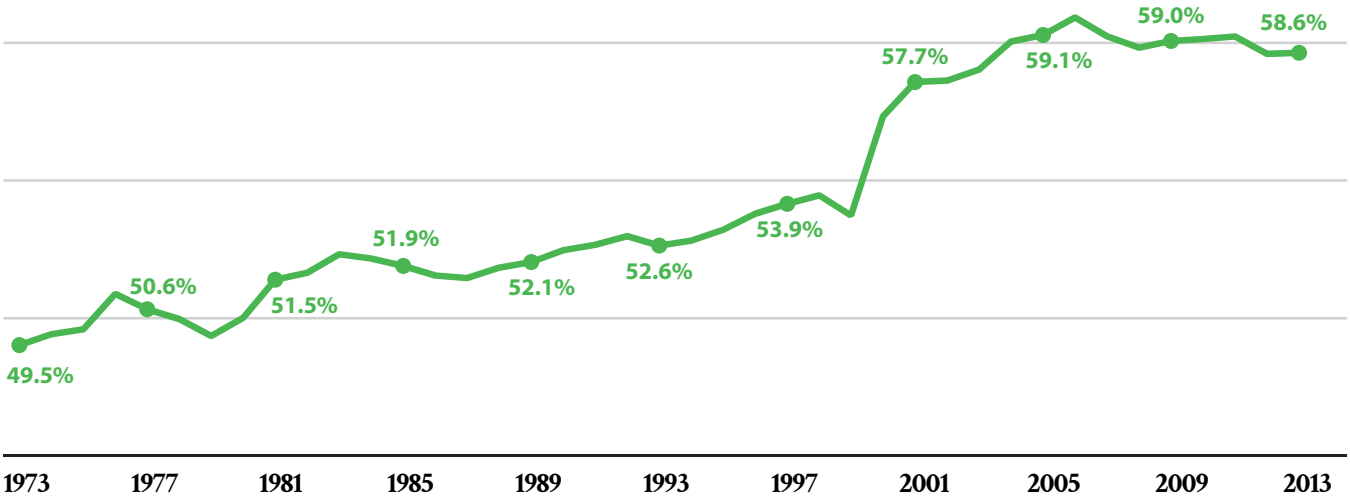


Table 10

Net Operating Income (Revenues over Expenses), per Year ($000s)

	2001	2002	2003	2004	2005	2006
Canada	134,348	211,867	68,236	537,626	406,477	465,152
Newfoundland & Labrador	4,341	3,026	215	2,522	5,470	8,904
Prince Edward Island	2,639	2,544	-40	2,041	3,001	2,650
Nova Scotia	-5,133	4,288	7,226	12,344	7,275	3,123
New Brunswick	3,536	2,630	7,248	7,039	66	2,581
Quebec	-10,431	11,382	16,922	23,089	-33,101	-103,079
Ontario	98,354	146,629	80,009	343,317	310,259	390,751
Manitoba	7,720	10,222	11,640	2,761	68	2,077
Saskatchewan	16,937	5,417	1,583	15,876	11,533	7,528
Alberta	-17,867	-8,167	-117,258	38,732	1,620	33,796
British Columbia	34,252	33,896	60,691	89,905	100,286	116,821

	2007	2008	2009	2010	2011	2012	2013
Canada	661,991	209,343	-62,957	711,283	881,394	793,500	795,062
Newfoundland & Labrador	9,073	9,993	7,956	10,480	26,993	25,115	3,015
Prince Edward Island	3,050	1,329	1,239	1,628	4,175	2,247	1,246
Nova Scotia	6,652	1,077	7,861	22,733	33,270	30,467	26,794
New Brunswick	5,647	145	2,088	8,998	16,995	15,090	14,919
Quebec	-56,870	-97,484	-28,082	55,299	-17,729	151,845	39,851
Ontario	543,008	250,869	-33,418	394,870	541,861	326,575	534,450
Manitoba	19,823	22,025	17,092	36,392	34,864	37,105	23,672
Saskatchewan	21,830	10,335	5,204	-4,261	31,008	28,726	34,155
Alberta	-10,893	-66,698	-48,730	64,937	96,031	107,501	83,261
British Columbia	120,671	77,752	5,833	120,207	113,926	68,829	33,699

Figure 5 shows similar results to those reported for academic rank salaries. It illustrates that total spending on salaries, wages and benefits as a proportion of total non-capital spending has been in a steady decline since 1976/77 when it accounted for 74.2% of all non-capital spending. By 2012/13, spending on salaries, wages and benefits represented only 63.8% of all non-capital expenditures.

Meanwhile, salaries and wages paid to non-academic staff as a proportion of total salaries and wages paid during that period have grown (Figure 6). In 1971/72, less than half of all wages and benefits were paid to non-academic staff. In 2012/13, about 6 out of every 10 dollars spent on wages and benefits in Canadian universities were spent on non-academic staff.

In summary, university expenditures have grown by 70.5%, but the growth in spending has not been as significant as reported when the data is analysed per FTE student and per FTE academic staff. Spending growth took place mainly in the scholarship and bursary category to compensate for the significant increase in tuition fees.

The data presented also show that total expenditures per student increased by a marginal average of 0.8% per year, barely enough to maintain historic spending levels per FTE student. Furthermore, library acquisitions, a vital component of post-secondary education, actually declined by 22.1% per student over the period under review. Similar results are returned when spending is analysed per academic staff.

Revenues vs. Expenditures

Overall, the financial picture for Canadian universities has been consistently positive since 2001. Nationally, revenues have exceeded expenditures in every year except 2009, the height of the recent financial crisis (see Table 10). For the most part this was a result of increased revenues drawn from tuition fees. Provincially, Quebec and Alberta were the only provinces in which their universities ran several years of deficits in operating income over the study period. In the case of Alberta, this is especially troubling given the strength of Alberta's public finances for that period of time.

Conclusion

University revenues and expenditures have increased steadily in real dollars. Rapidly escalating tuition fees over the past decade have dramatically increased the cost of a university education. In fact, revenues from tuition and fees in 2012/13 were more than $4 billion higher (in real dollars) than they were in 2000/01. This represents a massive shift of the cost of a university education from the public purse onto individuals.

The data presented have also countered the argument that academic rank salaries have been a significant driver of rising university expenditures and student fees. The data clearly show that the share of expenditures allocated to academic rank salaries has steadily declined. As well, while universities have experienced strong growth in total expenditures, less and less is being directed to university teachers' salaries.

The Canadian economy continues to struggle with the effects of the financial crisis, compounded by the recent fall in the price of oil, a major source of revenue for several provinces.

In light of weakening growth, governments in Canada may be tempted to institute new austerity measures, including reducing funding for universities and colleges. However, this strategy, if adopted, raises serious questions about the long-term viability of the current financing model, one that relies increasingly on private financing in the form of tuition fees. Transferring more debt from public sources to private households at this time risks dampening aggregate demand and further harming economic growth. Adopting austerity in the current climate also risks further downward pressure on the core operating budgets of universities at a time when investments in teaching and research are already falling behind.