University Sustainability: Expenditures

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Introduction

This report constitutes the third component in a series by the Higher Education Quality Council of Ontario (HEQCO) on financial and academic sustainability in Ontario's higher-education system.

Our first paper, *Understanding the Sustainability of the Ontario Postsecondary System and its Institutions: A Framework* (Weingarten, Hicks & Moran, 2016), examined the elements of sustainability and identified a series of tools and strategies to measure it. We articulated three principles: first, that sustainability is not just about balancing the books — it is ultimately about quality and the student experience; second, that the best sustainability regimes are those that look forward; and finally, that overcoming sustainability challenges will require collaboration between government and individual institutions.

The next component of our analysis was a focus on the revenue outlook for the public higher-education system. Our studies, *University Sustainability: Signal Data* (Weingarten, Hicks, Jonker & Moran, 2017) and *College Sustainability: Signal Data* (Weingarten, Kaufman, Jonker & Hicks, 2017), gauged institutional sustainability risk with regard to enrolment and demographic trends, student demand and financial performance.

The data revealed that Ontario's colleges and universities are on relatively stable footing, but suggested that there are risks to sustainability inherent in the status quo. Tuition increases are capped at 3%, domestic demographics will not support enrolment growth over the next 10 years, and the province has signalled that the system should expect constraint with regard to the rate of operating grant increases.[1] The data also suggests that the outlook could vary dramatically between institutions depending on their circumstances.

This paper, the next step in our analysis, will focus on sector expenditures. The questions we seek to answer are simple: What does growth in institutional operating costs look like? What drives university operating expenditures? Do institutions have the flexibility and tools they require to manage expenditure growth and live within their means?

To answer these questions, we focus on the largest expenditure facing our universities: the cost of labour. Faculty and staff are the core resource of Ontario universities. Remunerating this highly skilled labour force represents the largest budget line expenditure for institutions. Our universities rely on faculty, instructors and staff to serve students, deliver on institutional missions and meet the priorities of the province. This paper canvasses available data to better understand labour expenditure patterns and trends.

The final component of our sustainability project, to be published in the near future, will be a capstone paper, which will weave together the threads of the previous sustainability papers and explore whether

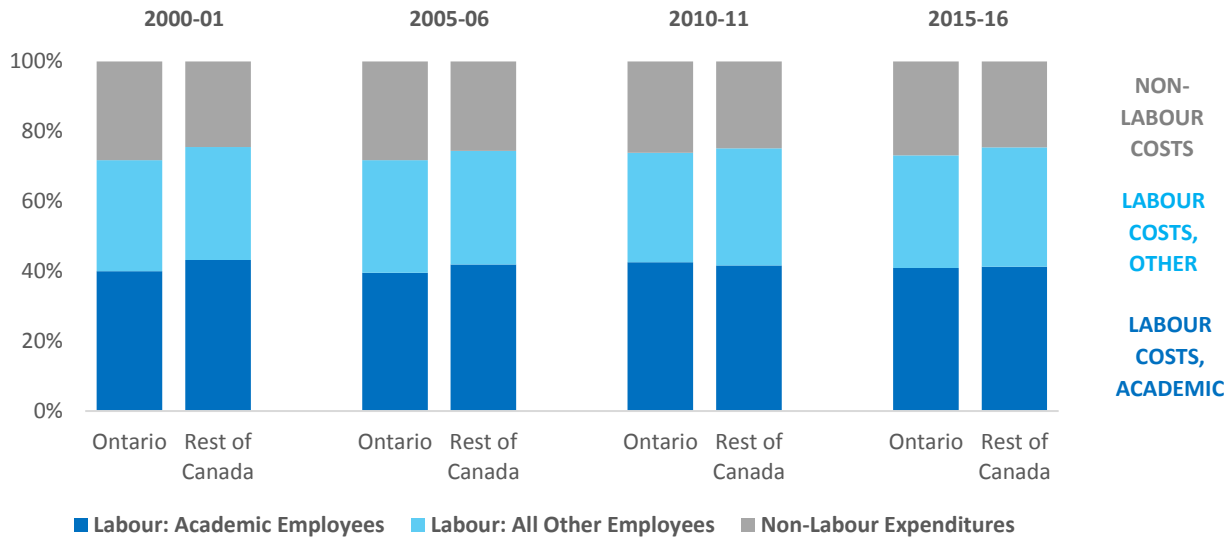
[1] For the first time in over a decade, the 2017 Ontario Budget included no operating grant increases for enrolment growth.

and how we can maintain the balance between revenues and expenditures within the sector while protecting the quality of education provided to Ontario students.

Expenditure Overview

Ontario and other provinces have similar and, over time, fairly stable ratios of labour costs (wages and benefits paid to university employees) to all other operating expenditures. Labour costs constitute the lion's share of total operating expenditures (in Ontario, 73% in 2015–16).[2] It is for this reason that we focus on them for the remainder of this report. Non-labour costs can also play an important role in the management of institutional expenditures and sustainability, but because they represent only 27% of total operating expenditures, a 10% change in non-labour costs translates into a change of less than 3% overall.[3]

Figure 1: University Operating Expenditures: Ontario and the Rest of Canada



Source: Canadian Association of University Business Officers (CAUBO)

[2] Canadian universities report their revenues and expenditures on a "fund accounting" basis. The largest fund (65% of total expenditures nationwide) is the Operating Fund. The Operating Fund "is an unrestricted fund that accounts for the institution's primary operating activities of instruction and research" (CAUBO, 2015). Most other funds are specialized and restricted: sponsored research, capital funds and endowments, for example. For this reason, we have chosen to focus primarily on the operating fund in presenting our data. For those who are curious: When considered on a total expenditure basis (all funds), expenditures on labour drop to about 60% across Canada. This is precisely because much of the other funds included in total expenditures — such as capital and endowments — are restricted amounts earmarked for a particular purpose, as evidenced from their titles.

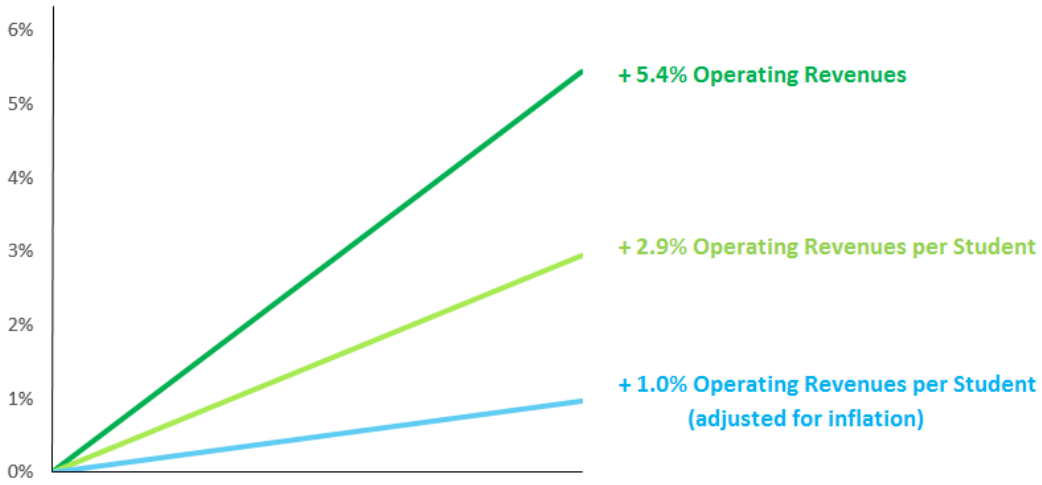
[3] There are other sources of information on important initiatives to manage non-labour expenditures in the Ontario system. See, for example, the following publications by the Council of Ontario Universities (COU): *Faster Cheaper Smarter: Improving Efficiency at Ontario Universities* (COU, 2015); *Innovative Ideas: Improving Efficiency at Ontario Universities* (COU, 2011).

Labour costs in the university sector are what they are at any given moment in time. It is not our intent to pass judgement, nor to opine that labour costs are either "too high" or "too low." There is no absolute measure of such a thing. Rather, from a sustainability perspective, it is helpful simply to take stock of current costs and examine the trends at play to support discussion on how to sustain a balance of revenues, expenditures and quality outcomes in the future.

The equation is simple: Sustainability necessitates that the increase in labour costs over time must be at most equal to, but not greater than, the increase in revenues. If they are higher, then one outcome might be financial crisis. The more likely scenario, as we argued in our framework paper, is that academic sustainability is put at risk as institutions maintain a revenue-expenditure alignment by resorting to strategies that may compromise academic quality and threaten the student experience.

In times when revenues are increasing, there is less pressure to manage the expenditure side of the revenue-expenditure balance. As demonstrated in Figure 2, Ontario has experienced a steady increase in university revenues over the past 10 years. However, we have also experienced growth in enrolment — the measure of how much teaching work needs to be done (and done well) with those revenues. Adjusted for enrolment, the increase in operating revenues per student is much more modest.[4]

Figure 2: Average Growth in Ontario University Operating Revenues per Year, 2005–06 to 2015–16



Source: CAUBO and Ministry of Advanced Education and Skills Development (MAESD). Average growth rates are based on a compound annual growth rate.

[4] Over the past three years, operating revenues per student (not adjusted for inflation) have increased at an average rate of 2.4% per year.

As we noted previously in our sustainability series, it is not realistic to expect this rate of increase to be maintained over the next decade. It is precisely for this reason that it becomes important to understand the other half of the equation — expenditures. This paper will examine:

Compensation

Frameworks, levels and rates of salary increases for both academic and non-academic employees of our universities. This includes an examination of the impact of the elimination of mandatory retirement on faculty renewal, costs and levels.

Part-time Faculty

Their deployment and relative cost vis-a-vis full-time faculty

Full-time Faculty Workloads

A review of earlier work by HEQCO and others on faculty deployment and productivity.

Most of the data included in this report is in the public domain or derived from public sources. Our goal is to present relevant data about compensation expenditures, and we reserve commentary, analysis and recommendations for the capstone paper to follow. The selection of data presented is clearly not random, however, and even without commentary, it will be evident to the reader that all of this information is aligned with the important business of keeping revenues and expenditures in a state of balance, without undermining the student experience.

Compensation

University Compensation Frameworks

By legislation, each university is an independent employer. Ultimately, each institution's Board of Governors has responsibility over matters of employment, as it does all aspects of the university's affairs. Practically, much of human resource policy and implementation is delegated to the president and the senior management team. With respect to the various types of employees of Ontario's universities, the basic framework is as follows:

> **University President**: is subject to an individual contract of employment with the board.
>
> **Senior Administrators**: (e.g., provosts, vice-presidents and other executives, with variations across institutions) are non-unionized employees subject to terms and conditions of employment delegated by the board to the president.

Full-time Faculty: are, at each institution, either officially unionized or have formed associations that are voluntarily recognized by the university for the purposes of negotiating terms and conditions of employment.

Part-time Instructors: are typically represented by a variety of unions across institutions, as are graduate students who assume teaching responsibilities[5].

All Other Staff: are employed in both unionized and non-unionized contexts by each university.

Universities are part of Ontario's Broader Public Sector (BPS), [6] and are from time to time subject to public-sector salary and cost-containment measures. For example, universities were included in Ontario's Social Contract framework of public-sector wage constraint in the early 1990s. More recently, the current Ontario government has been actively mitigating the rates of labour expenditure increases across the BPS. For employees represented by unions or faculty associations, the government has signalled constraint, but has not intervened in the collective bargaining process. For non-represented employees, the government has since 2010 enacted several tranches of legislation aimed at capping the rates of compensation increase that BPS organizations, including colleges and universities, may award.[7] The restrictions are especially targeted toward executives earning over $100,000 a year. The legislative provisions fall short of an actual wage freeze and have been subject to varied interpretation, but do collectively establish a clear intent to hold the line on compensation cost increases.

Measuring Compensation

Data Sources

There is no single database tracking compensation in Ontario's university sector. We pull our data from two principal sources. The first is Ontario's Public Salary Disclosure ("Sunshine") List, which annually publishes the names, jobs and salaries of BPS employees earning $100,000 or more in Ontario. The $100,000 threshold is an obvious limitation to this data set. It is not an issue when examining university presidents and senior administrators; their salaries ride above this threshold. With regard to full-time faculty, considerable analysis can be done, as 85% were included in the Sunshine List in 2016. For other staff groups, the Sunshine List is of limited use because a significant proportion of employees is missing.

Our other principal data source is the University and College Academic Staff System (UCASS), an annual Statistics Canada inventory of full-time faculty salaries. UCASS ran until 2010, was suspended from 2011 to 2015, and has been reinstated, effective 2016. During the suspension, the universities formed a

[5] We include graduate students with primary responsibility for the teaching of a class, but not graduate or undergraduate teaching assistants.

[6] In Ontario, the "Broader Public Sector" refers to organizations that receive funding from the Government of Ontario. They are not, however, a part of the government itself. Examples of BPS organizations include hospitals, universities, colleges and school boards. For all of these entities, compensation constitutes the majority share of expenditures.

[7] See Public Sector Compensation Restraint to Protect Public Services Act, 2010, Broader Public Sector Accountability Act, 2010 and Broader Public Sector Executive Compensation Act, 2014.

National Faculty Data Pool (NFDP) to keep data collection alive. UCASS and NFDP are very rich sources of data on Canadian full-time faculty compensation.

We have also drawn from other provincial and international data sources, as identified in the report.

We will focus on measuring both absolute salary levels and trends (changes) in salaries over time.

Absolute Salary Levels

Salaries are what they are. Given that we are starting from a set of mostly balanced books at institutions (see *University Sustainability: Signal Data*), the important forward-looking questions are whether salaries are growing at a rate that is affordable in the context of revenue forecasts and how much leeway there might be to ensure that they are.

It is helpful, therefore, to also have an appreciation of the absolute levels of salaries in the sector. If nothing else, this helps us to understand the potential scope for adjustment: Where does Ontario sit in the national or global higher-education labour market?

Salary Trends

As we have said, it is the change in remuneration over time and its relationship to the change in revenues that will ultimately determine the sustainability of universities. How, then, to measure the change in remuneration?

We could measure the year-over-year change in total compensation expenditures. This data is readily available from universities' published financial reports, but total expenditure is the product of the average per-employee cost (salary) and the numbers of employees. In an environment of constrained revenues, the rate of change of one of these (say a change in average per-employee salary) will trigger a change in the other (the number of employees the university can afford to maintain). These are the very kinds of trade-offs institutions must sometimes make. We, therefore, want to unpack and better understand that relationship, so we need to isolate the per-employee salary change.

We could report the change in average per-employee salaries, but this is, in part, a function of employee turnover. The yearly retirement of senior (higher-paid) employees, and their replacement by junior (lower-paid) employees, is integrated within the calculation. The reported average is, therefore, subject to variability in the replacement pattern, such as the variability we will observe later in this report resulting from the elimination of mandatory retirement. We would like to isolate this variable, and get down to a root measurement of wage increase.

So, we will simply measure the year-over-year change in individual salary costs. That is, for continuing employees, how much does their pay increase or decrease? For full-time faculty, this data would ideally be available from UCASS and NFDP, which capture all full-time faculty. The universities have not released this data from their NFDP holdings. However, it can also be assembled by lining up several years of data from the Sunshine List. This is the approach we took in the absence of other sources. The Sunshine List is also a good source for tracking labour costs of presidents and senior administrators; they

are fully captured on the list and there is no other public database for tracking salaries of those employees.

An additional advantage of using the Sunshine List is that it tracks all contributing elements of salary increases. The typical compensation structure of BPS collective agreements includes two basic components. The first is a "base" or "cost-of-living" adjustment. This is often a straight percentage applied across all members of the bargaining unit. This is the component typically reported to the public at the conclusion of bargaining. The second is a "progress-through-the-ranks" or "seniority" increase. This may be an additional percentage, or lump sum or series of steps. All or a portion of it may be merit-based and subject to a performance review. The Sunshine List reports total actual compensation received under all provisions included in collective agreements or contracts of employment.

So, to summarize: Our simple approach is to measure and report the actual change in individual salaries (averaged over groups of employees) for continuing employees.

Preparing Data from the Sunshine List

Each public organization that is covered under the *Public Sector Salary Disclosure Act*, including Ontario's 20 publicly funded universities, is required to report on seven data elements for each employee who earns $100,000 or more in a calendar year: sector, employer, surname, given name, position title, salary paid and taxable benefits.

Because we are measuring change in individual salaries, we linked employees reported across the Sunshine List for several years using their surname, given name and employer (university). For presidents, we analyzed 10 years of data. For all other reported employees, we limited ourselves to the most recent four-year period, 2013 to 2016, as the workload associated with a longer window would have been prohibitive. Some data cleaning was required in order to deal with inconsistencies in the recorded names across the years.

To overcome inter-institutional disparities in classifying employee position titles, we grouped individuals into the five categories shown below in Table 1. Each university has its own internal system for classifying job titles and may categorize its various types of employees according to a different framework.

Table 1: Categories of Employees Based on Position Titles in the Sunshine List

Job Category	Description
President	Includes presidents of the 20 public universities. Presidents and principals of affiliated, constituent and federated institutions and campuses are included in the "Senior Administrators" category.
Senior Administrators	Includes provosts, vice-presidents (e.g., academic, research, student affairs, administration and finance), associate vice-presidents, assistant vice-presidents, university/chief librarian, faculty deans, and presidents and principals of affiliated, constituent and federated institutions and campuses.
Faculty	Includes assistant, associate and full professors. Faculty members with senior administrative responsibilities (e.g., faculty deans, provosts) are included in the "Senior Administrators" category. Faculty members with other administrative duties such as departmental chairs, undergraduate/graduate chairs, director of a lab or centre, and assistant, associate or vice-deans are included in the "Faculty" category.
Other Faculty & Librarians	Includes lecturers, sessionals, instructors, visiting faculty, librarians and clinical faculty.
Staff	Includes directors and executive directors (e.g., research and planning, student recruitment and admissions, planning and operations, human resources, housing services), managers (e.g., communications, client support, business systems), registrars, researchers and other staff.

We used salary paid (remuneration reported on T4 slips) in our examination of compensation levels and salary trends, and excluded taxable benefits from our analysis. Before analyzing changes in salary, we excluded cases where an individual's job title changed. We also excluded cases where the reported salary decreased by less than 20% or increased by more than 35% from the year prior. These steps were taken to limit the effect of promotions and of in-year arrivals and departures.

For greater readability, we summarize our findings below and include additional information and technical notes about our methodology for harvesting data from the Sunshine List and other sources in Appendix A.

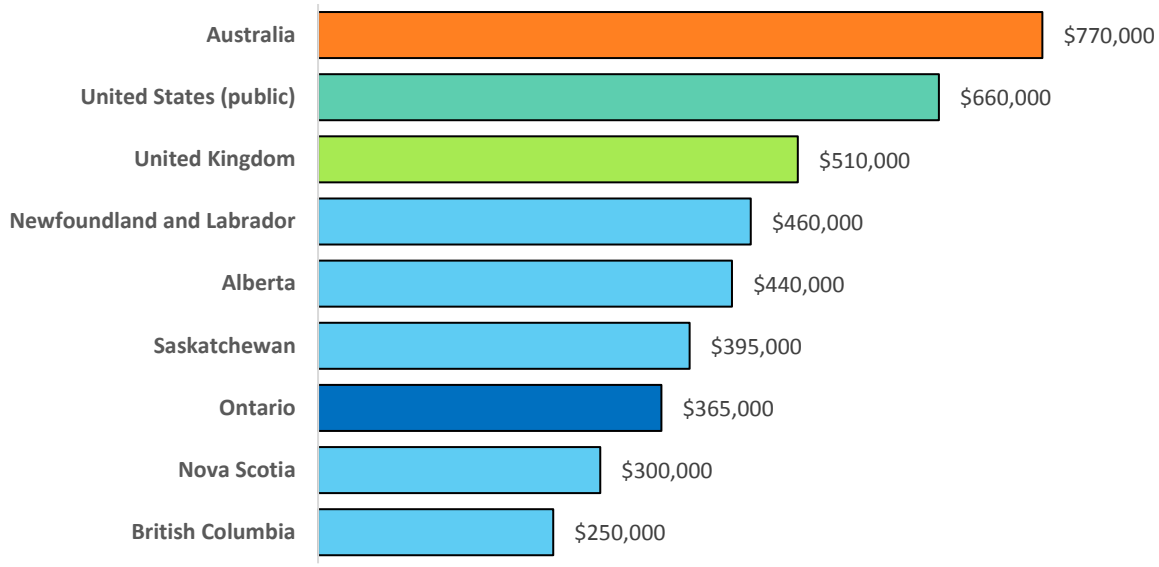
One final note about salaries: Salaries reported in the Sunshine List reflect the calendar year, whereas annual salaries reported to UCASS/NFDP are (roughly) based on the academic year.

Presidents

Presidents: Absolute Salaries

In Figure 3, we have assembled published information on 2016 presidential salaries for a number of Canadian provinces and peer jurisdictions. All values have been converted to Canadian dollars using the OECD's purchasing power parity index to reflect the relative cost of living in each jurisdiction.[8]

Figure 3: Average Salaries for University Presidents in 2016



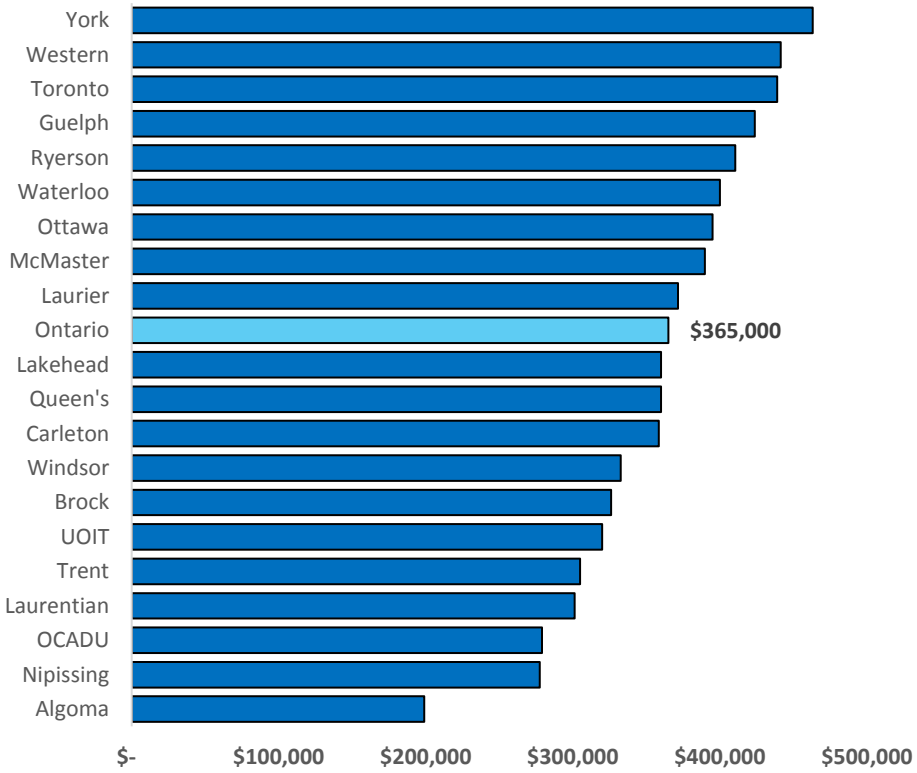
Source: See Appendix A2

Within Ontario, we used the Sunshine List to examine the reported salaries of presidents at each university and over time. Presidents have shorter terms of employment (in the role of president) than most other full-time institutional employees. They each have individual contracts of employment, which in Ontario are typically (with occasional exceptions) not public. Their contracts may provide for post-term payments (Taylor-Vaisey, 2008), which if valued over $100,000 in annual direct compensation would be reported within the Sunshine List.[9] The reported salaries for the presidents of our 20 public universities are shown in Figure 4.

[8] The purchasing power parity index refers to an approach to setting currency exchange rates between countries by comparing the price of a standard basket of goods in each currency. This more accurately reflects and equates the true value or literal "purchasing power" of each currency than the official exchange rate.

[9] For a more recent example than the 2008 Maclean's article cited, see the publicly available contract for the past president of the University of Ottawa, which provides for 19 months of administrative leave at the base presidential salary following completion of the term as president, http://www.uottawa.ca/president/sites/www.uottawa.ca.president/files/allan-rock-employment-contract.pdf

Figure 4: Ontario Universities' Presidential Salaries, 2016



Source: Ontario Sunshine List, 2016

Figure 4 shows the reported compensation for incumbent presidents of the 20 public universities. Not shown are the reported post-term payments made to past presidents of these institutions. Also not shown are the salaries of presidents of affiliated and federated institutions, for example, the University of Toronto's Victoria College, the University of Ottawa's St. Paul University and Western's Brescia University College (for more information about affiliates, see Trick, 2015). When post-term payments and the salaries paid to the presidents of affiliated and federated institutions are added to those of the principal presidents of the public institutions, total presidential compensation reported in the Sunshine List in 2016 was $12.6 million. This represents 0.2% of total university expenditures on salaries and wages.[10]

Throughout this paper, our Sunshine List analysis is focussed on reported salaries, not including reported taxable benefits. Presidents are the only university employee group for whom reported taxable benefits are a significant factor in total reported compensation. Appendix A1 provides data on these additional amounts.

[10] Based on salary data reported in the Ontario Sunshine List, and expenditure data reported by the Council of Ontario Finance Officers (COFO).

Presidents: Salary Trends

Using the Sunshine List, we looked at growth in individual continuing presidential salaries over a 10-year period from 2006 through 2016. In nominal terms (i.e., not adjusted for inflation), the salaries of continuing presidents averaged an annual growth of 2% per year over the past 10 years, and an average decline of 0.7% per year over the past five years. Appendix A2 shows the reported year-over-year salaries that led to these overall trends. The decline we observed over the past five years is the result of a small number of reported year-over-year reductions in total salary paid, combined with modest rates of increase for the majority of presidents. We cannot examine the nature of, or reasons for, the recorded decreases, as the contracts on which they are based are not in the public domain. We excluded from our analysis years where, for reasons of presidential transitions, partial-year salaries were recorded in the Sunshine List.

Table 2: Change in Incumbent (Continuing) Presidential Salaries

Annual Salary Change for the Period:	2006 to 2011 (five years)	2011 to 2016 (five years)	2006 to 2016 (10 years)
Continuing Presidents' Average Annual Growth	4.8%	-0.7%	2%

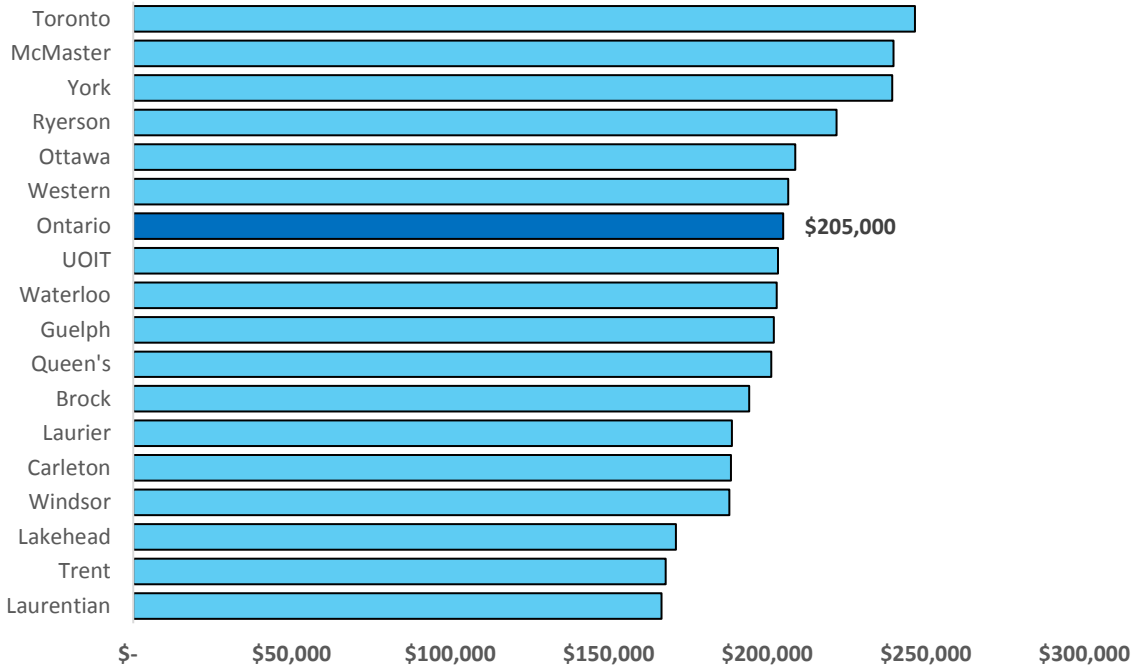
Source: Ontario Sunshine List. See Appendix A2 for more information about how these growth rates were derived.

Senior Administrators

Senior Administrators: Absolute Salaries

Figure 5 shows the average senior administrators' salaries by institution for 2016. We were unable to locate or generate comparable data for this group of employees for a representative sample of other jurisdictions.

Figure 5: Ontario Universities Average Senior Administrators' Salaries, 2016



Source: Ontario Sunshine List. Does not include institutions with fewer than 15 senior administrators (i.e., Algoma, Nipissing and OCADU)

Senior Administrators: Salary Trends

Using Sunshine List data for these employees, we calculated that the average annual growth in continuing senior administrators' salaries was 3.4% over a three-year period from 2013 to 2016.

Full-time Faculty

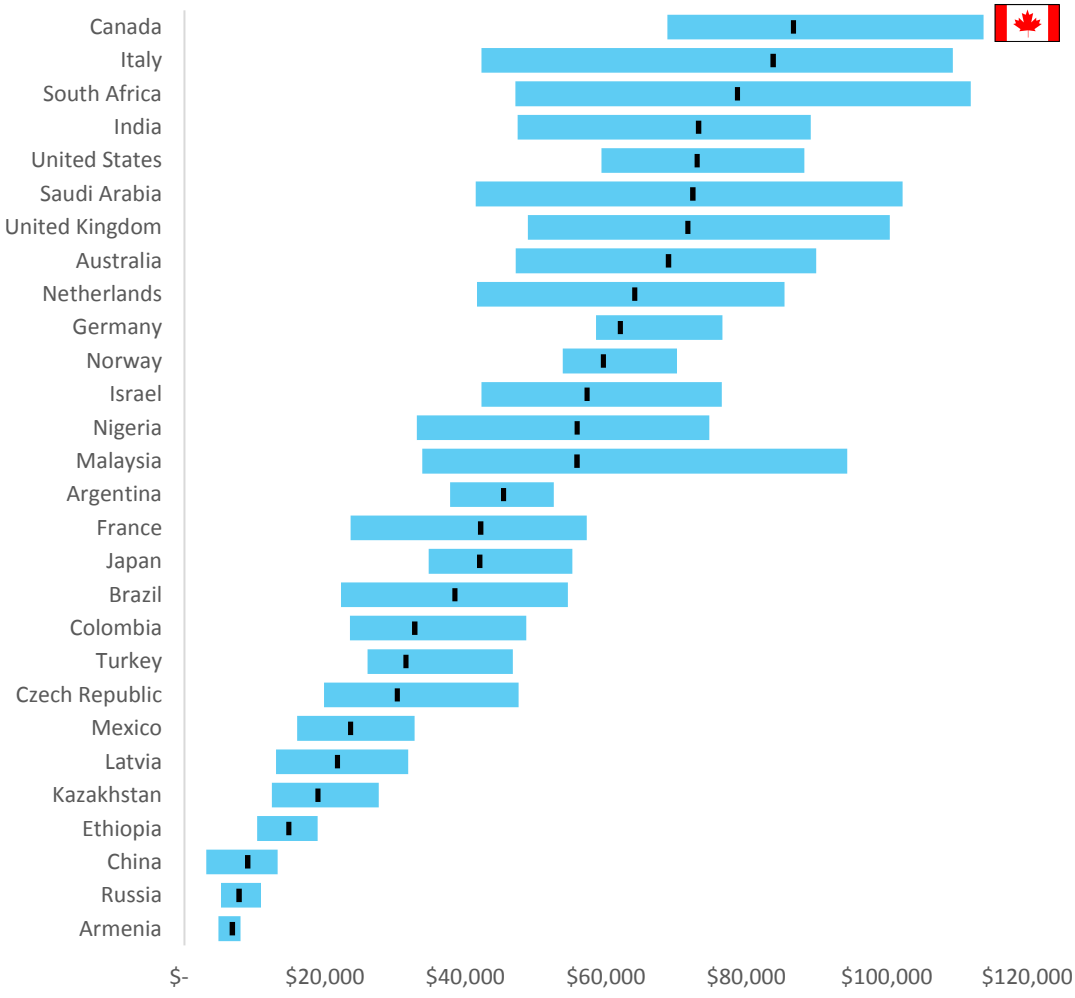
Full-time Faculty: Absolute Salaries

Data compiled by the Council of Ontario Finance Officers for 2015 shows that full-time faculty are the single largest employee group at universities and represent 34% of total operating expenditures for Ontario institutions[11] (COFO, 2017). They are also the most critical staffing resource for universities, as they form the core front line for both the teaching and research missions.

[11] Salaries and wages for full-time faculty includes full-time staff members who hold an academic rank and full-time staff and non-staff members without academic rank, but who are engaged in instruction and research activities (e.g. postdoctoral fellows, instructors). Benefits have been prorated for full-time faculty on the basis of their share of total wages and salaries.

A 2012 study that examined academic salaries, contracts and benefits at public universities in 28 countries found that after converting salaries into US dollars and using a purchasing power parity index[12] to facilitate cross-country comparisons, Canadian full-time faculty had the highest entry-level salaries (represented by the left edge of each blue bar in Figure 6), overall average salaries (represented by the black notch within each blue bar), and top-level salaries (represented by the right edge of each blue bar).

Figure 6: Entry-level, Average and Top-level Annual Salaries for Academic Faculty at Public Universities
(In US dollars, adjusted for purchasing power parity)

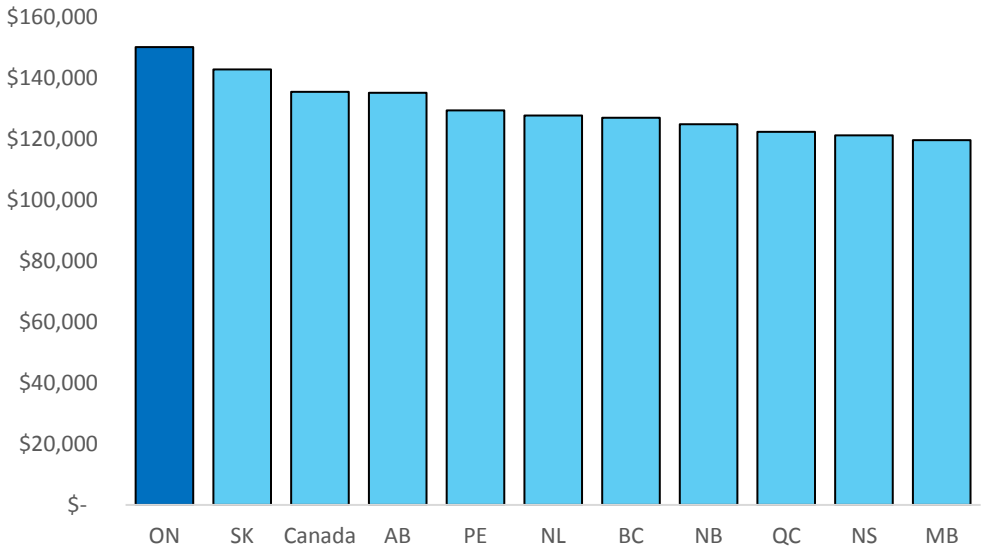


Source: *Paying the Professoriate: A Global Comparison of Compensation and Contracts* (Altbach, Reisberg, Yudkevich, Androushchak & Pacheco, 2012).

[12] See footnote 7 for an explanation.

Figure 7 shows that within Canada, Ontario has the highest average faculty salaries among the provinces.

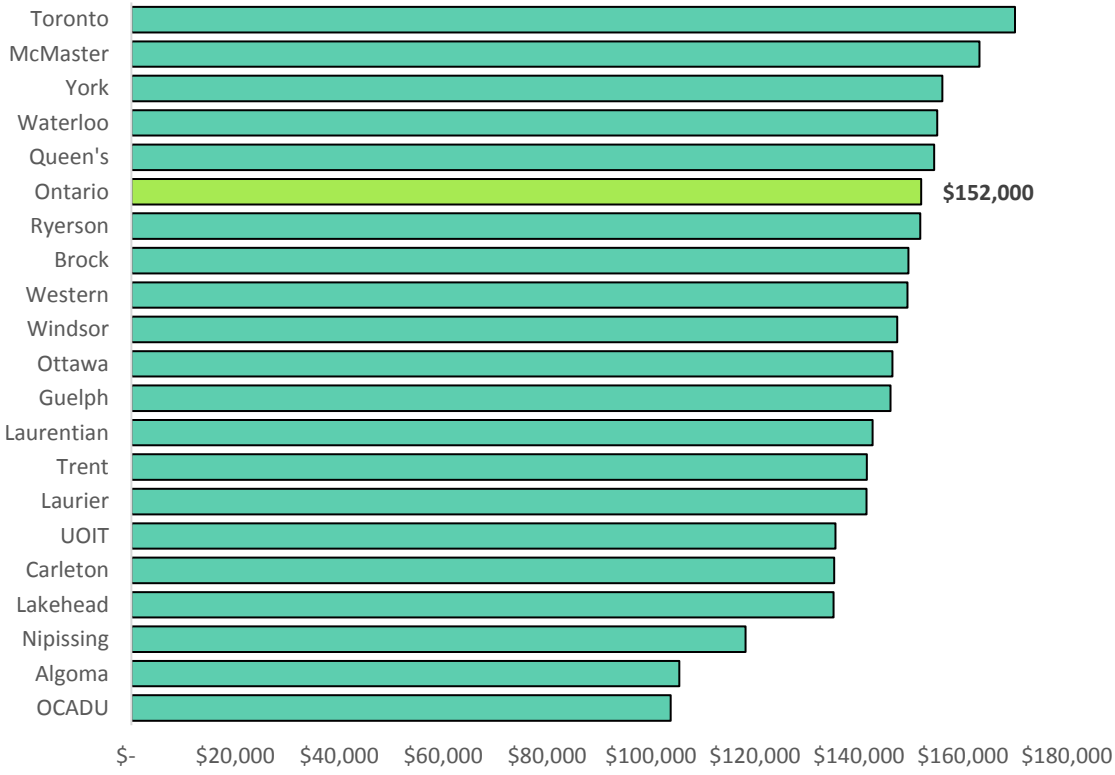
Figure 7: Average Full-time Faculty Salaries by Province, 2016



Source: UCASS

Figure 8 shows the average full-time faculty salary for each Ontario university.

Figure 8: Average Full-time Faculty Salaries by Ontario University, 2016



Source: UCASS and NFDP

Full-time Faculty: Salary Trends

There are almost 15,000 full-time faculty in Ontario, of which just over 85%, or 12,795, earned $100,000 or more in 2016 and had their salaries reported on the Sunshine List.

The missing 15% are largely junior faculty, whose salaries have not yet grown above the $100,000 threshold. Does their omission skew the overall rates of increase in continuing faculty salaries that can be calculated from the Sunshine List? Our review of university collective agreements reveals that, for the most part, negotiated annual increases apply consistently across all faculty, regardless of seniority or base salary level. An example is the typical increase in cost of living, which is applied as a straight percentage increase to all faculty base salaries. There are some departures, such as the occasional use of uniform lump sum payments, merit- or performance-related pay and extraordinary payments intended to redress underlying salary inequities, but their weight is negligible in the overall mathematics behind salary increases. When comparing the average salary of the faculty members captured on the Sunshine

List ($155,000) to the Ontario average of all full-time faculty ($152,000), the difference is less than $3,000.[13] The 85% captured by the Sunshine List is, in our judgement, a representative sample.

The salaries of continuing full-time faculty averaged an annual growth of 4.1% over the period 2013 to 2016.[14]

Other Employee Groups

We examine the salary differential for part-time instructors in a later section of this report.
There are no consistent data sources available to us to compare absolute salaries of other university employee categories across jurisdictions. In Ontario, the provincial Sunshine List allows a partial comparison of average salaries for a variety of university employees. As we have already noted, however, for employee groups with a large percentage of members earning below the $100,000 threshold, the data is skewed.

Sunshine List Summary — All University Employees (Earning $100,000 or more)

Table 3 summarizes the average reported employee salaries and changes in salaries for all continuing employees included in the 2016 Sunshine List, grouped into our five employee types.

[13] There are some minor differences between the two data sources examined. The average salary for full-time faculty from UCASS is based on the academic year and includes a small subset of faculty with a rank below assistant professor (e.g., lecturers, instructors and other teaching staff) and deans that are not included in the overall average from the Sunshine List.

[14] Ideally, we would have liked to track more than three years, as we did for presidents. The prohibitive factor here is the sheer amount of work required to align and clean consecutive years of Sunshine List data. The simpler approach, of course, would have been to use the NFDP to conduct a longer-term analysis that captures 100% of faculty. We urge Ontario universities to make this data public for precisely this reason.

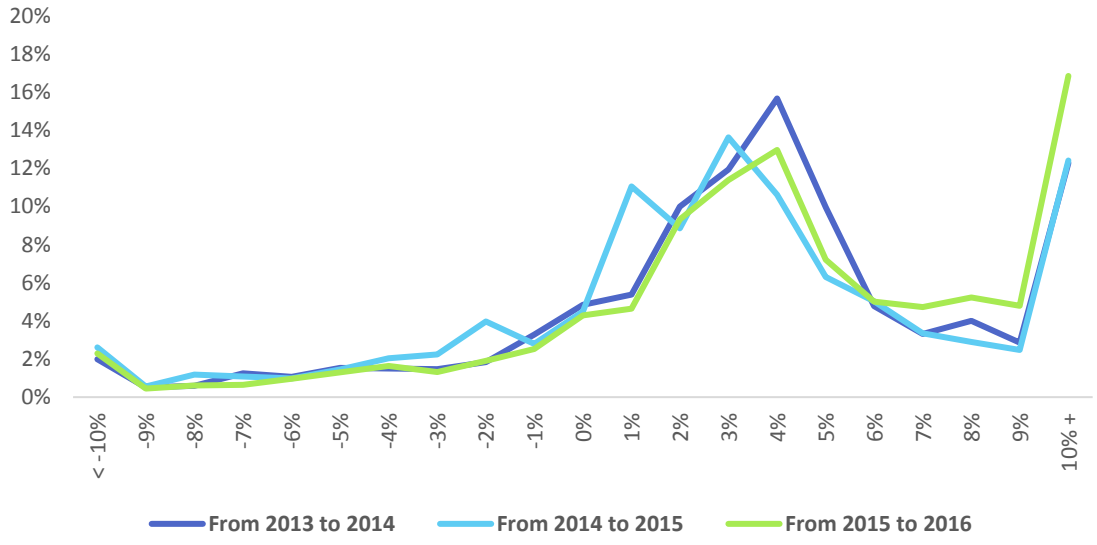
Table 3: Ontario Universities — Sunshine List Summary by Employee Category

	# on the Sunshine List in 2016	% Captured by the Sunshine List	Average Salary in 2016 (of those over $100,000)	Change in Salary for Continuing Individuals			
				2013 to 2014	2014 to 2015	2015 to 2016	3 Year Annual Average
Presidents	22	100%	$365,000	-1.0%	1.7%	-0.6%	0.0%
Senior Admin	532	100%	$205,000	3.9%	3.2%	3.2%	3.4%
Faculty	12,795	85%	$155,000	3.9%	3.4%	4.8%	4.1%
Other Faculty & Librarians	1,323	Unknown	N/A	3.7%	2.4%	5.5%	3.9%
All Other Staff	3,242	Unknown	N/A	3.8%	3.0%	3.5%	3.5%
Total	**17,914**	**Unknown**	**$150,000**	**3.9%**	**3.2%**	**4.6%**	**3.9%**

Source: Ontario Sunshine List, 2016. See Appendix 2A for more detail.

The distribution of salary changes for all reported employees captured in the Sunshine List from 2013 to 2016 is shown in Figure 9. The overall annual average growth rate in salaries across this three-year period was 3.9%.

Figure 9: Distribution of Salary Changes, All Continuing University Employees Listed in the Ontario Sunshine List from 2013 to 2016



Source: Ontario Sunshine List

Figure 9 shows a fairly tight (spiked) distribution of salary increases for each of the three years we tracked at our calculated average increase of 3.9%, and another spike of individuals who experienced an increase of 10% or more. The first spike is self-explanatory. In looking at the second spike, we note:

- As with all our Sunshine List analyses, we excluded anyone whose income decreased by less than 20% or increased by more than 35%, and individuals for whom the Sunshine List recorded a change in job title.
- We further determined that most individuals who received a salary increase of 10% or more only received an increase of this magnitude once over the three years we examined.
- There is no corresponding spike at the bottom end (-10% or less).
- The distribution of employees in the 10% or more group roughly correlates to the distribution of employees into our five groups (for example, full-time faculty represent 68% of university employees in the Sunshine List and 79% of university employees in the 10% or more salary increase group).

As a further test to eliminate any remaining new employees who were employed for a part of the year and, therefore, experienced a high year-over-year change, we filtered out anyone who was not reported in the Sunshine List the year before. That is:

- Before analyzing the individual salary change from 2015 to 2016, we eliminated everyone who was not on the institution's Sunshine List in 2014.
- Before analyzing the individual salary change from 2014 to 2015, we eliminated everyone who was not on the institution's Sunshine List in 2013.

This made a negligible difference to the observed distribution curve of salary change, and in particular to the right-side spike. The universities indicate there are several possible reasons to explain this spike including: extra compensation for faculty teaching additional courses above their regular course assignments (overload teaching), administrative stipends, reduced pay in the previous year for sabbatical or other leave, merit bump without promotion, or additional research funding, stipends, or contracts.

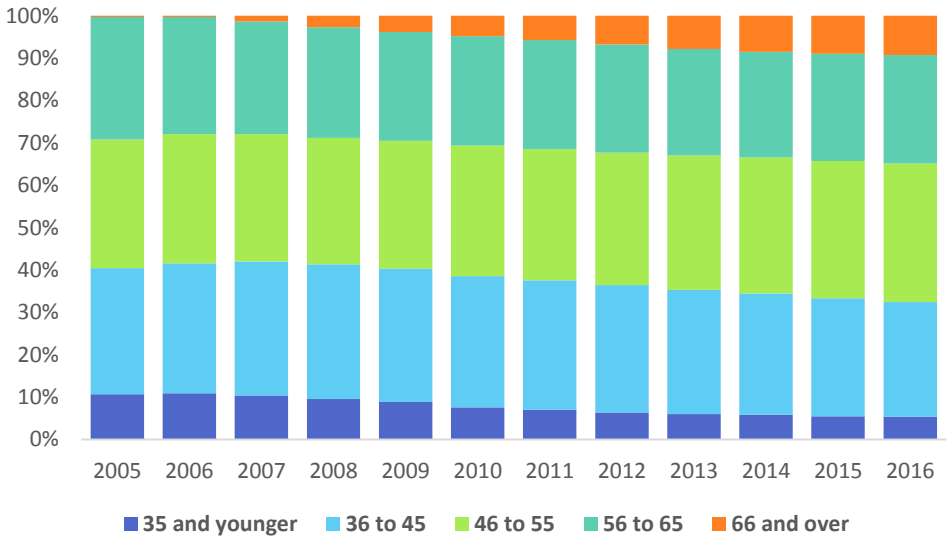
Elimination of Mandatory Retirement

Prior to December 2006, the mandatory retirement age in Ontario was 65. Not surprisingly, records available for full-time faculty (UCASS and NFDP — no equivalent data was or is published for other types of university employees) show that virtually no faculty maintained full-time employment status past their 65th year.[15]

[15] Between 1990 and 2006, the number fluctuated wildly year to year from a low of 12 to a high of 75, suggesting that the count included a significant number of individuals who were only "on the books" for their 66th birthday as they moved through the paper work to retirement.

With the elimination of mandatory retirement, the number of full-time faculty aged 66 and over has grown from next to nothing to a count of 1,239 in 2016, representing 9% of the total full-time faculty complement.

Figure 10: Age Composition of Ontario Full-time Faculty



Source: NFDP

Figure 10 reveals a strong negative correlation (-0.99) between the growth in faculty aged 66 and over and the decline in faculty aged 35 and younger. Correlation does not imply causation. Other factors will always influence the ebb and flow of faculty renewal at the bottom of the age range, including: overall growth in system-wide enrolments and revenues; the shape of and any bulges in the demographic profile of existing faculty moving through all stages of their careers; changes in the ratio of full-time to part-time instructors; and even the degree to which universities may be hiring mid-career full-time faculty as opposed to new faculty (e.g., by hiring for proven research performance).

But assuming, for illustration purposes, that mandatory retirement had not been eliminated, that faculty had continued to retire at age 65, and that they had been replaced by faculty in the 35 and younger age bracket, we calculate that:

- Universities could have maintained the same overall full-time faculty complement as today, but at a salary savings of $89 million in 2016.
- The overall age composition of Ontario faculty shown in Figure 10 would have remained much more stable over the period 2005 to 2016, with more newly minted PhDs (up to 1,239) hired into faculty positions.

- Alternatively, for the same annual salary expenditure as today, universities could have increased their total faculty complement by 781, or 6% in 2016.

As shown in Table 4, these calculations are a simple function of the fact that faculty aged 35 and under are paid 61%[16] of the salary of faculty age 66 and over ($113,000 versus $185,000).

Table 4: Average Salaries and Cost of Faculty by Age Group, 2016

	# of Faculty	% of Faculty	Average Salary	$ Spent on Salaries (millions)	% Spent on Salaries
35 and Younger	717	5%	$ 113,429	$ 81.3	4%
36 to 45	3,594	27%	$ 131,088	$ 471.1	23%
46 to 55	4,350	33%	$ 152,762	$ 664.5	33%
56 to 65	3,405	26%	$ 169,100	$ 575.8	28%
66 and Older	1,239	9%	$ 184,947	$ 229.1	11%
Total	**13,305**	**100%**	**$ 151,969**	**$ 2,021.8**	**100%**

Source: NFDP

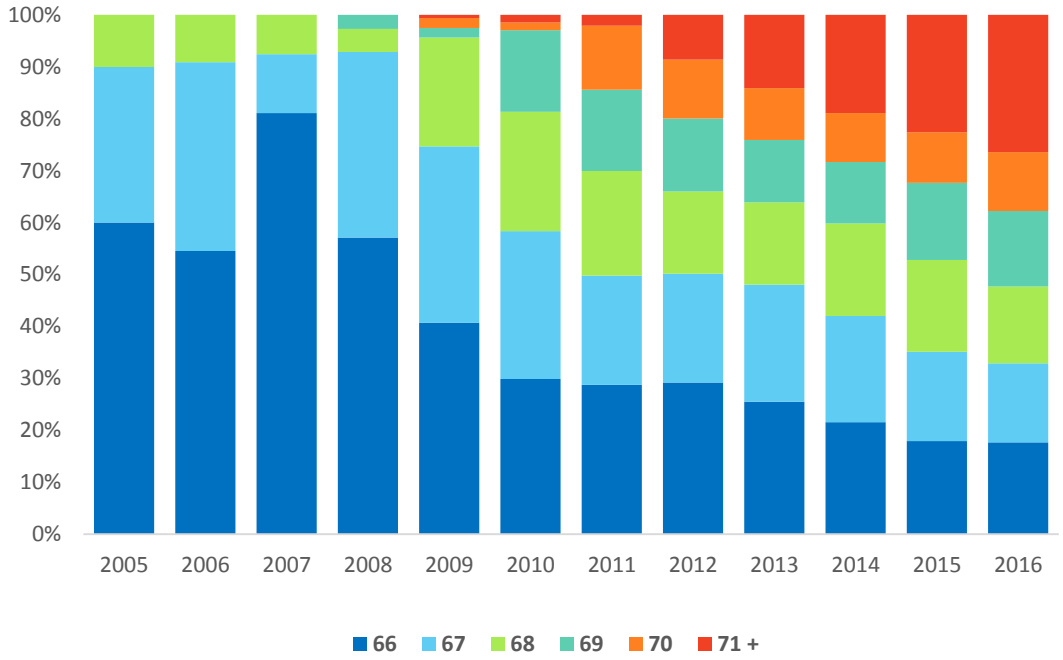
Our primary interest in these trends is from a sustainability perspective. The elimination of mandatory retirement has shifted and continues to shift the demographic profile of faculty. The shift is away from relatively inexpensive junior faculty to the most expensive senior faculty. This has both a financial impact as well as an impact on faculty renewal.

Ontario is currently in a period of transition as the retirement behaviour of faculty adjusts to the December 2006 change in law. Unless the legal or policy frame is again altered, the transition period will continue until retirement patterns re-stabilize. The data in Figure 11 shows we have not yet reached the end of the growth curve in over-66 full-time faculty at Ontario's universities. It is not possible to model when the pattern will become more stable and it is unlikely that the pattern will ever stabilize as predictably as it did under the hard age-65 limit we used to have. For example, an unanticipated correction in the investment market may trigger a temporary increase in the number of post-65

[16] This is a function of where starting salaries are set and of progress-through-the-ranks provisions in collective agreements. For comparison, the negotiated salary grids for Ontario teachers result in new teachers being paid about 60% of seasoned teachers with similar qualifications. A difference is that for teachers, the progression from starting to mature salaries happens over a 10-year period, as teachers move through a pre-determined salary grid. From the 11th year on (again assuming no additional qualifications are earned), increases are limited to negotiated cost-of-living adjustments only. Under the majority of Ontario university faculty agreements, progress through the ranks (the equivalent of the teacher grid) happens more slowly over the lifetime of a career. Similarly, newly hired college faculty members with a degree are paid about 60% of the salary paid to seasoned faculty. Like teachers, college faculty are subject to a negotiated salary grid, and their increases are limited to cost-of-living adjustments once they have journeyed to the top of the grid.

employees as those with defined-contribution pension plans extend their years of employment in order to recoup losses in their retirement portfolios. Despite these caveats, one can anticipate that once the pattern achieves greater stability, all other things being equal, the inflow of new, younger faculty will increase.

Figure 11: Age Distribution of Ontario Full-time Faculty Aged 66 and Over



Source: NFDP

Part-time Instructors

Introduction

The role and contributions of part-time instructors are central to the question of sustainability. On one hand, as we shall see, it costs Ontario universities less to engage part-time instructors to teach than full-time faculty. On the other, concerns are routinely raised about the impact of part-time instructors on the quality of the student experience.

A 2014 HEQCO publication *The "Other" University Teachers: Non-Full-Time Instructors at Ontario Universities* (Field, Jones, Karram, Stephenson & Khoyetsyan, 2014) established much of the context for the deployment of part-time instructors in Ontario.[17] We briefly summarize some of the report's salient observations and findings here:

- The lack of a national database on part-time instructors makes it challenging to examine the prevalence of part-time instructors in Canadian universities and how that has changed through time.[18] A number of studies show that the use of part-time instructors has been increasing. These studies tend to rely on headcounts to make their case.
- Part-time instructors are far from homogeneous. They include "classic" part-time instructors who have careers outside the university and bring real-world experience into the academy, as well as "contemporary" part-time instructors who are pursuing an academic career, but are either choosing to work part-time or unable to find full-time faculty positions. They also include graduate students in cases where they are assigned primary responsibility for teaching a course.
- Part-time instructors are generally unionized, though not necessarily under the same collective agreement or even by the same association as their full-time faculty colleagues.
- In Ontario, enrolment levels have been increasing at a faster rate than full-time faculty positions (52% and 30% respectively between 2000 and 2009). This gap raises the question of whether part-time instructors have been hired to mitigate the impact on average class size.
- Examination of available data for a sample of Ontario universities suggests that the prevalence of part-time instruction varies significantly between institutions.
- In Ontario, part-time instructors are generally remunerated based on courses taught, at an established rate per semester-length course.

[17] We will use the term "part-time" non-technically in this paper to refer to faculty other than traditional full-time tenure-track faculty and non-tenure full-time appointments such as teaching-stream professors. "Non-full-time" is a more precise label, but less intuitive. Other labels commonly used for part-time instructors include course-based, sessional, adjunct, partial-load, contingent and working professionals. Labels for classifications of employees and organizing principles for the deployment of instructors vary from university to university. We also include graduate students who are assigned a course of their own — but not teaching assistants who are assisting another primary faculty member in the delivery of a course.

[18] As noted above, Statistics Canada recently re-instated the annual University and College Academic Staff System (UCASS) survey after a five-year hiatus. The federal government has signalled an intent to expand it to include (among other things) part-time instructors.

Illustrative Statistics

Assessing the prevalence of part-time instructors is difficult because a simple count of employees misrepresents their proportional teaching volume and impact.

We were assisted by four Ontario universities (identified here as universities A through D), which provided us with data on faculty headcounts, the percentage of undergraduate courses taught, and the percentage of undergraduate students taught, for full- and part-time instructors for the 2013 academic year. To overcome inter-institutional disparities in the classification of instructors, we simplified the resultant categories of faculty down to four: full-time tenured/tenure stream; full-time non-tenured and/or teaching stream; part-time graduate students; and all other types of part-time instructors.[19]

Figure 12 summarizes the data from the four participating institutions. While part-time instructors (including graduate students with primary responsibility for the teaching of a class, but not graduate or undergraduate teaching assistants) make up about 50% of reported faculty headcounts (unique employed individuals) at these four institutions, they teach about 40% of undergraduate classes and students (as measured by course registrations).[20] If data on the teaching of graduate courses were to be added, the proportion of teaching by part-time instructors in our sample would decrease further, as full-time faculty typically teach the bulk of graduate courses.[21]

The four universities in this sample are not necessarily reflective of the system as a whole. The exercise illustrated that with a more concerted, coordinated and universal reporting scheme, relevant data to track the numbers and activities of part-time instructors across the province could be collected as it already is for full-time faculty. It also made it clear that the deployment of part-time instructors in Ontario is material.

Shortly following the conclusion of this exercise, the Council of Ontario Universities released an examination of faculty workloads that includes similar findings based on more complete data from 17 of the 20 Ontario universities (COU, 2018). COU reports that part-time instructors make up 52% of the total academic workforce, and teach 46% of undergraduate students and 50% of courses. [22]

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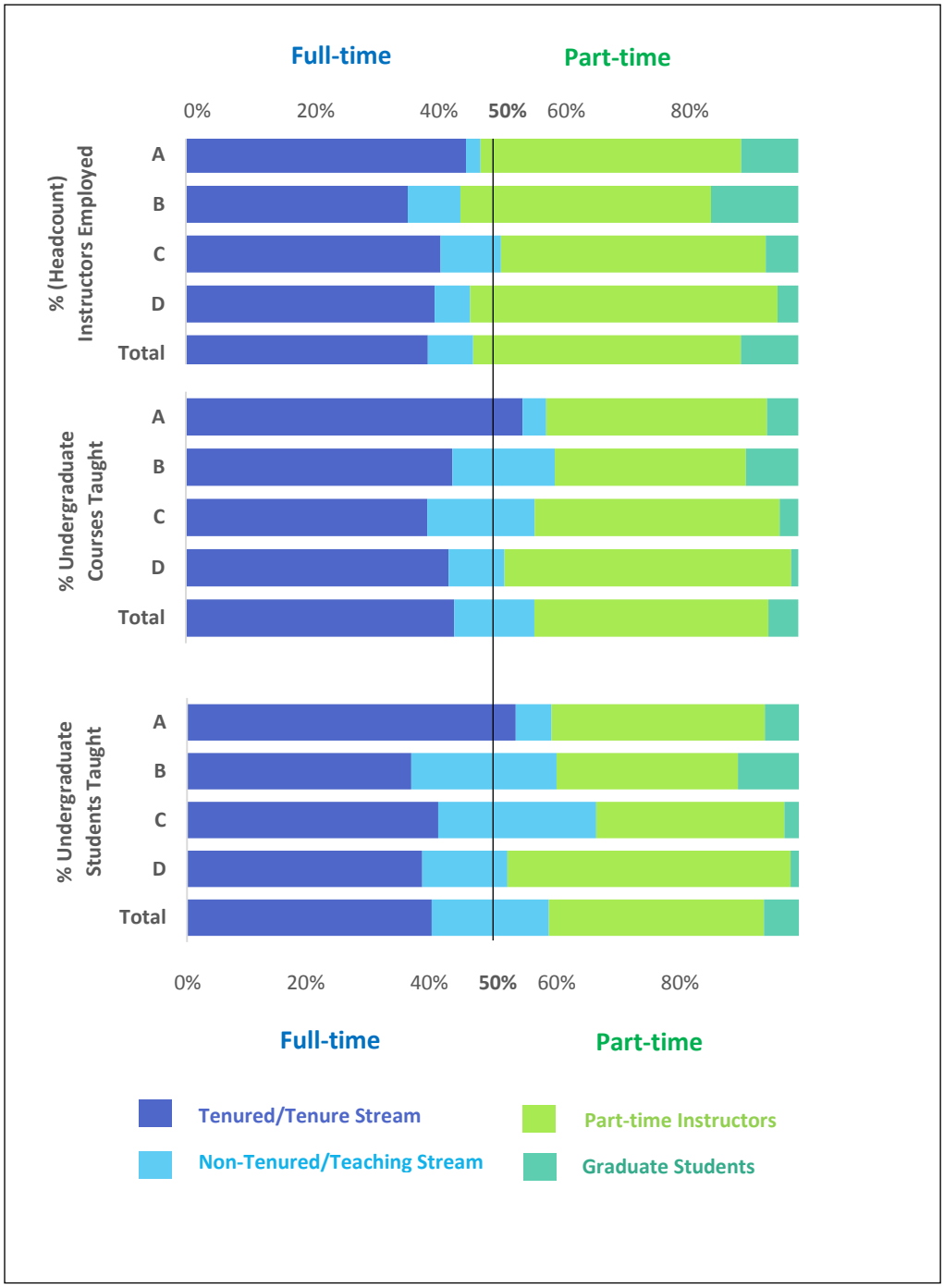
[19] Any attempt at showing sub-classifications of part-time instructors would not map precisely to the customized part-time nomenclature used internally by each of our four participating institutions. We therefore aggregated and standardized labels (at a high level) to observe the inter-institutional variance in the deployment of part-time instructors.

[20] A recent report by the United States Government Accountability Office examined the deployment of part-time faculty in three states, using similar measures. At four-year institutions in Georgia, North Dakota and Ohio, contingent faculty (including full-time non-tenure faculty) represent 55%, 55% and 63% of total instructional positions respectively, but only 45%, 45% and 54% of courses taught and 57%, 50%, and 60% of credit hours taught (United States Government Accountability Office, 2017).

[21] In our 2014 report, *Teaching Loads and Research Outputs of Ontario University Faculty: Implications for Productivity and Differentiation* (Jonker & Hicks, 2014), we found that full-time faculty in our sample of three disciplines at 10 universities taught 63% of undergraduate courses overall and 89% of graduate courses.

[22] The COU report also includes an in-depth examination of categories of part-time academic instructors, their levels of education, variation in the use of part-time instructors by discipline, average course-loads, and an investigation what proportion of part-time instructors might be classified as seeking full-time academic positions.

Figure 12: Full- and Part-time Faculty Data from Four Ontario Universities



Source: HEQCO calculations based on data provided by four participating institutions

Cost Considerations

There are many reasons for universities to hire part-time instructors. As the new COU workload report points out, "Students learn cutting-edge knowledge from recent graduates, postdoctoral fellows, and even graduate students; and they benefit from the deep practical knowledge and current, hand-on experience that working professionals bring into the classroom. Part-time instructors also provide universities the flexibility to offer students more courses, by teaching additional sections, … teaching courses in new programs where demand is unknown, teaching courses in accredited programs, … and offsetting higher costs resulting from the end of mandatory retirement" (COU, 2018).

As the closing clause in the quote above suggests, a salient factor (for the purposes of this report's focus on sustainability) behind the decision to deploy part-time faculty is a cost consideration. This stems from the fact that part-time instructors are hired with a singular focus on course-based teaching. As the new COU report points out, "Full-time tenure stream faculty members are responsible for teaching courses, supervising graduate and undergraduate research projects, curriculum development and program review, as well as maintaining an active research portfolio and performing service activities for their different communities. Part-time instructors, by contrast, are hired on a course-by-course basis exclusively to teach" (COU, 2018).

Data from the Ontario Confederation of University Faculty Associations (OCUFA) tells us that the average per-course remuneration for part-time instructors across Ontario, at the system level, is $7,500 (See Appendix A2). We also know from the new COU workload report that full-time tenure-stream faculty teach an average of 3.2 courses a year. So the average cost across the system of hiring one or more part-time instructors to teach the equivalent number of courses of a full-time professor is $24,000.

By contrast, for a junior or entry-level average salary of $113,000 or a mid-career average salary of $152,000, a full-time tenure-track professor performs a variety of functions (service, research, and teaching-related duties both within and outside the classroom).

So, if at any time a university wishes to boost its course-based teaching capacity, and only that, hiring part-time instructors is a cost-effective option.

Table 5: Hiring Options and Considerations

Hiring Objective	Cost effective option[23]
University is hiring academic staff to teach 3.2 semester-length courses, primarily at the undergraduate level, and may also be desirous of maintaining deployment flexibility in future years	Part-time instructor(s): $24,000
University is hiring academic staff to teach 3.2 semester courses, supervise graduate and undergraduate research, contribute to curriculum development and program review, maintain an active research portfolio and perform service activities. University is also willing and able to make a career-long hiring commitment	Full-time tenure-track faculty:[24] (junior hire)…$113,000 (average mid-career salary)…$152,000

Quality Considerations

A traditional concern about the use of part-time university faculty is that deploying part-timers in the classroom diminishes the ability of the university to meet its broadly stated goals. The following quote, reprinted from the Brock University collective agreement for full-time faculty (also reproduced in HEQCO's report, *The "Other" University Teachers: Non-full-time Instructors at Ontario Universities* (Fields et al., 2014), articulates the argument:

> The parties agree that the educational mission of the University can be carried out only if most credit courses are taught by full-time continuing faculty members, because it is only under such circumstances that the University can ensure that the norm is that persons teaching courses are also actively engaged in research and scholarship; it is only under such circumstances that the University can ensure that faculty members are reasonably available to students for consultation, thesis supervisions and reading courses; it is only under such circumstances that the University can ensure the integrity of its academic programs; and it is only under such circumstances that the University can continue to rely upon faculty members to perform many of the administrative tasks that are essential to its functioning.

Given that part-time instructors are hired explicitly to teach courses, a more pointed question might be: What is the impact of using part-time instructors on the quality of teaching and on the student experience?

[23] At the time of writing, the province had just enacted new legislation: *Fair Workplaces, Better Jobs Act, 2017*. The act includes new legislative provisions relating to equalizing rates of pay for employees with different employment statuses when they perform substantially the same kind of work. Our discussion here about the remuneration and duties of part-time and full-time academic staff is in no way relevant to, a commentary on, nor intended as advice relevant to any (potential) future discussion of the interpretation and applicability of these legislative provisions in the university context.

[24] For simplicity, we have excluded from this analysis a third, emerging hiring option: hiring full-time non-tenure academic staff with job expectations balanced more towards teaching and less towards research. The new COU workload study reports that these employees make up 6% of total academic staff across the province. The degree to which their remuneration and balance of duties differs from those of full-time tenure-track staff varies considerably across the universities.

In Appendix B we review some of the literature on this question. It is an inherently difficult question to answer, as there is no consensus indicator on the overall quality of a postsecondary education. That said, the available evidence is inconclusive regarding the impact of the instructor's appointment status on the quality of teaching.

Full-time Faculty Workloads

From a sustainability perspective, the cost of faculty is a function not only of how much they are paid, but also of their workloads and productivity: the work-effort inputs and the outcomes achieved for the levels of compensation received.

Collective Agreements

For full-time faculty, if there is a stated relationship between compensation and workload or work expectations, it may show up in the collective agreements that govern terms and conditions of employment. It does, in two regards:

- **Overall Work Expectations.** The COU reminds us that a standard faculty member devotes 40% of work effort to teaching; 40% to research; and 20% to service.[25] This traditional expectation is reflected explicitly in seven (of 20) university full-time faculty collective agreements.[26] We take this norm, or a close variant to it, as unwritten but clearly understood by the parties in the remainder of the system.

  A complete examination of faculty workloads must, therefore, include all three components of the job (this is not the case for part-time instructors, who are generally expected to focus on teaching only). At the very least, a full examination of workload should address both teaching and research, as these represent the twin missions of Ontario's universities and constitute 80% of faculty work expectations.

- **Teaching Expectations**. Of the three components of the job, teaching is the easiest to quantify, typically by way of course-load expectations. Among Ontario agreements for full-time faculty, five specify a maximum normal teaching load of five semester-length courses, five specify less than five courses, and seven defer to departmental norms or practices in establishing teaching loads. Appendix C provides a summary of provisions contained in Ontario universities' faculty collective agreements with respect to workload.

[25] See *Faculty At Work: A Preliminary Report on Faculty Work at Ontario's Universities, 2010–2012* (COU, 2014).
[26] Carleton uses a variant in its faculty collective agreement: 50% teaching; 35% research, 15% service. The 40/40/20 proportions obviously do not apply to the very small percentage of full-time faculty who are hired as teaching stream or teaching intensive. Half of Ontario full-time faculty collective agreements include provisions for such positions.

Ontario Workload Studies

There have been four recent Ontario data reviews of full-time faculty workloads.

1. In our 2012 report, *The Productivity of the Ontario Public Postsecondary System* (HEQCO, 2012) HEQCO published 2010 pilot data from four Ontario universities on average full-time faculty workloads. The data was further disaggregated in two dimensions. One was by discipline — sciences versus humanities and social sciences. The second was by whether or not faculty were research active.

2. In 2014, we published *Teaching Loads and Research Outputs of Ontario University Faculty Members: Implications for Productivity and Differentiation* (Jonker & Hicks, 2014). We assembled publicly available data on a sample of teaching workloads, research volumes and remuneration for full-time faculty in the economics, chemistry and philosophy departments of 10 Ontario universities.

   Our examination of workloads concluded that if full-time faculty members not active in research were to teach twice the load of their research-active colleagues, the overall teaching capacity of the full-time professoriate in Ontario would be increased by about 10%, a teaching impact equivalent to adding about 1,500 additional faculty members across the province.

3. Also in 2014, the COU published *Faculty at Work: A Preliminary Report on Faculty Work at Ontario's Universities, 2010–2012* (COU, 2014). The study expanded the four-university pilot cited above to include data from most of the system and reported average teaching loads for 17 participating universities (of 20). The report also commented on the research and service activities of faculty.

4. In 2018, COU published Faculty at Work: The Composition and Activities of Ontario Universities' Academic Workforce (COU, 2018). This study further expanded the 2014 study to include data on the composition of the academic workforce and the teaching, research, and service activity of both full-time and part-time academic staff for 17 participating universities for the 2014-15 academic year. This is the most up-to-date and complete review of workload data for the Ontario university system.

Table 6 summarizes the results of these four studies.

Broader Context

Appendix D provides a detailed review of faculty workload measurement initiatives across several jurisdictions.

Table 5: Results from Ontario Full-time Faculty Workload Studies

Average annual undergraduate and graduate semester-length course load	1			2			3			4		
	4-institution Pilot Study			**HEQCO 3-discipline, 10-institution Sample**			**COU 17-institution Faculty at Work Report**			**COU 17-institution Faculty at Work Report**		
	2010–11 data			2012–13 data			2011–12 data			2014-15 data		
	Sciences	Humanities and Social Sciences	**All Faculty**	Economics	Chemistry	Philosophy	Sciences	Humanities and Social Sciences	**All Faculty**	Tenure-Stream	Full-time, non-tenure stream	Part-time
Research active faculty	2.6	3.4	**3.0**	2.9	2.4				**3.3**			
Research inactive faculty	3.4	3.9	**3.8**	3.4	3.3				**4.1**			
All Faculty	**2.7**	**3.7**	**3.4**	**3.0**	**2.4**	**2.9**	**3.1**	**4.0**	**3.6**	**3.2**	**4.6**	**2.3**
% Research Active Faculty:				73%	93%		92%	85%	87%			

Note: Grey cells indicate data that is not available/published.

Definition of "Research Active" in each study

Study 1: External funding or publication record, creative activities, editing a journal or presenting at a peer adjudicated conference

Study 2: Granting council funding or publication in peer-reviewed journals over a six-year period

Study 3: External funding or outputs including peer-reviewed articles, books and chapters in the collection year

Study 4: N/A – Results are reported by three broad categories of academic staff and do not indicate the percentage (or activities) between research active and research inactive faculty

Summary of Observations

1. An analysis of sustainability needs to look at both revenues and expenditures. These must be in a sustainable balance or academic quality will suffer.
2. The costs of labour constitute 73% of university operating expenditures.
3. The annual increase in salaries for continuing employees has averaged 3.9% over the past three years over all categories of university employees.
4. These rates of increase are higher than the annual rate of increase in operating revenue per student (2.9% over the past ten years; 2.4% over the past three years).
5. There is little likelihood that revenue increases in the foreseeable future will be as high as we have seen over the past decade.
6. Since the elimination of mandatory retirement in 2006, the percentage of full-time faculty over the age of 65 has grown from 0% to 9%. The proportion is still growing and it is too early to say when the transitioning retirement pattern will stabilize. During the same time period, the percentage of full-time faculty aged 35 and younger has decreased from 11% to 5%.
7. The most senior professors cost 60% more than the most junior professors. Had mandatory retirement remained in place, Ontario universities could have employed 1,239 additional new, young faculty and at the same time saved $89 million in 2016.
8. Part-time instructors (including graduate students) teach about half of undergraduate courses across Ontario.
9. There is no definitive evidence that the quality of teaching is diminished (or augmented) by the deployment of part-time instructors.
10. Hiring part-time instructors is a cost effective option when universities wish to increase their course-based teaching capacity.
11. Full-time faculty in Ontario appear to teach (on average) about three-and-a-half semester courses per year.
12. A 2014 HEQCO examination of workloads concluded that if full-time faculty members not active in research were to teach twice the load of their research-active colleagues, the overall teaching capacity of the full-time professoriate in Ontario would be increased by about 10%, a teaching impact equivalent to adding about 1,500 additional faculty members across the province.

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Appendix A: Technical Notes about the Data

A1. Analyzing Ontario's Public Sector Salary Disclosure ("Sunshine") List

Overview of the Data

In an effort to make Ontario's public sector more transparent and accountable, the *Public Sector Salary Disclosure Act* was introduced in 1996. The act stipulates that every organization that receives public funding from the Ontario government disclose annually the names, positions, salaries and taxable benefits of employees who earned $100,000 or more in a calendar year. Using a template and a set of strict reporting guidelines to ensure consistency year-over-year both across and within sectors, the salary data has been amalgamated and publicly posted on the Ontario Ministry of Finance website every March since 1997.

Each public organization that is covered under the *Public Sector Salary Disclosure Act*, including Ontario's 20 publicly funded universities and 24 colleges of applied arts and technology, is required to submit its records annually in an Excel template. There are seven mandatory fields that must be completed for each employee who earned $100,000 or more in the calendar year: sector, employer, surname, given name, position title, salary paid and taxable benefits. Each field has its own set of rules and characteristics that must be followed to ensure consistent reporting across and within sectors for year-over-year comparisons. The following table provides an overview of these reporting elements along with instructions on how to fill them in according to the reporting guidelines.

Table A1: List of Data Elements Included in Ontario's Public Sector Salary Disclosure List

Required Field	Description of What / How to Report
Sector	Choose from the following in a dropdown menu: • Government of Ontario – Legislative Assembly and Offices • Government of Ontario – Judiciary • Crown Agencies • Municipalities and Services • Hospitals and Boards of Public Health • School Boards • Universities • Colleges • Hydro One and Ontario Power Generation • Other Public Sector Employers
Employer	Provide the organization's legal name spelled in full. Do not abbreviate. Please be consistent with the name appearing in last year's disclosure, if applicable. Ministry of Finance will abbreviate where necessary. Organizations subject to the French Language Services Act must ensure that this field is also reported in French.

Required Field	Description of What / How to Report
Surname	• Use the employee's surname, as shown on the T4 slip for the year, or other financial record if this individual was not issued a T4 slip • Do not use "Estate of" or "In Trust" in the case where an employee is deceased • Use all upper case text • Do not include any titles or honorifics (example: Dr., Mr., Ms., Fr., Prof., etc.)
Given Name	• Use the employee's full given name (not just first initial), as shown on the T4 slip, or other financial record if this individual was not issued a T4 slip • Do not use "Estate of" or "In Trust" in the case where an employee is deceased • Use all upper case text • Do not include any titles or honorifics (example: Dr., Mr., Ms., Fr., Prof., etc.) • If there are two employees with the same first and last names, include a middle name or initial to differentiate between them
Position Title	Use the position title held on December 31. If the employee was no longer with the employer at the end of the year, use the position title last held by the employee • Spell the position title in full (no abbreviations or acronyms) • Do not use all upper case text. Use regular sentence case text (i.e., Director of Finance) • Organizations subject to the French Language Services Act must ensure that this field is also reported in French Certain expressions should not be used in the position title as they provide extra information that is not required by the PSSDA. Adding these expressions to a position title is an infringement of the Freedom of Information and Protection of Privacy Act. Some examples are: • Do not use the words "temporary" or "former" • Do not use the word "Acting." The only exception is when there is an official contract or paper trail that officially designates the position as acting • Do not indicate that the employee is on a temporary assignment unless you receive written consent from the employee. (Special provisions apply to employees seconded to ministries.)

Required Field	Description of What / How to Report
Salary Paid	Amount paid by the employer to the employee in the year Do not provide any breakdown of the components of the salary Salaries Reported on T4 Slips • To calculate the salary paid, subtract boxes 30, 32, 34, 36, 38, and 40 from box 14 of the T4 slip • **Salary Paid = [Box 14] – [Boxes 30+32+34+36+38+40]** Remuneration Paid as Per Diems/Retainers • Total of per diems/retainers paid in the calendar year, as indicated on financial records If an individual was paid per diems and/or retainers in the calendar year, as well as issued a T4, all amounts must be included in "salary paid" calculation
Taxable Benefits	Taxable Benefits Reported on T4 Slips Amount paid by the employer to the employee as reported on the T4 slip. (Total of boxes 30, 32, 34, 36 and 40) • Do not provide any breakdown of the specific taxable benefits • **Taxable Benefits = Boxes 30+32+34+36+40** Box 30 – Board and lodging Box 32 – Travel in a prescribed zone Box 34 – Personal use of employer's automobile or motor vehicle Box 36 – Interest-free and low-interest loans Box 40 – Other taxable allowances and benefits If an individual who received per diem and/or retainer remuneration, also received taxable benefits, then these taxable benefits are also reported Travel and meal expenses incurred by the individual and reimbursed by the employer are not considered a taxable benefit. Do not include these amounts in the calculation of taxable benefits.

Source: Ontario Ministry of Finance, "Preparing Your Report for the Year 2013. Public Sector Salary Disclosure Act Guide"

Data Cleaning and Linking

We downloaded the salary files from the Ontario Ministry of Finance website and incorporated any additions, changes or deletions from the relevant list of addendums for the respective years. We used employer (name of the university), surname and given name to link across four years of data from 2013 to 2016. When analyzing presidential compensation we examined data over 10 years, from 2006 to 2016.

In order to merge these files together, we first had to detect and correct misspellings and inconsistencies in relation to surnames and given names. We employed a range of cleaning techniques to improve the overall linkage quality across the four years of data that included removing middle names, accents, hyphens, apostrophes, capitalization and extra spaces. We further created a "short form" file that contained given names and their common diminutives or nicknames. For example, a person recorded as Chris in one year and Christopher in another would be corrected to have a common name across all four years of data. In an effort to catch any additional minor spelling errors, we created a flag to identify observations of those who were not linked across all four years with the same surname who worked at the same university. We checked these by hand and made any relevant fixes.

There were 15 cases where multiple individuals with the same given name and surname worked at the same university for a given year. For most of these cases we could use position title to distinguish between these duplicate records. For two instances where we could not differentiate between the records we took an average of the two salaries as in both cases the difference in the reported salary was less than $1,000.

Categorizing Job Titles

Each university has its own internal system for classifying position titles. Some institutions like Carleton University and Wilfrid Laurier University simply use “faculty” to denote faculty members, whereas others like Nipissing University and the University of Toronto provide very detailed information including rank and department for academic staff. At a minimum, we were able to classify everyone who appeared on the Sunshine List into one of the following five categories based on position title.

Table A2: Job Categories Created Based on Position Titles

Job Category	Description
President	Includes presidents of the 20 public universities. Presidents and principals of affiliated, constituent and federated institutions and campuses are included in the "Senior Administrators" category.
Senior Administrators	Includes provosts, vice-presidents (e.g., academic, research, student affairs, administration and finance), associate vice-presidents, assistant vice-presidents, university/chief librarian, faculty deans and presidents, and principals of affiliated, constituent and federated institutions and campuses.

Job Category	Description
Faculty	Includes assistant, associate and full professors. Faculty members with senior administrative responsibilities (e.g., faculty deans, provosts) are included in the "Senior Administrators" category. Faculty members with other administrative duties such as departmental chairs, undergraduate/graduate chairs, director of a lab or centre, and assistant, associate or vice-deans are included in the "Faculty" category.
Other Faculty & Librarians	Includes lecturers, sessionals, instructors, visiting faculty, librarians and clinical faculty.
Staff	Includes directors and executive directors (e.g., research and planning, student recruitment and admissions, planning and operations, human resources, housing services), managers (e.g., communications, client support, business systems), registrars, researchers and other staff.

Note about clinical faculty: We flagged faculty members as clinical faculty if they had the word "clinical" as part of their job title. For Queen's University and University of Toronto we were further able to identify clinical faculty based on the department that was included in their job position title. For Western University we could flag faculty who, in addition to being identified as a professor, were also identified as being a medical doctor. These faculty members are included in the “Other Faculty and Librarians” category.

Sample Size

There are 20,912 unique names included in the university sector of the Sunshine List for at least one year from 2013 to 2016, 84% of whom earned $100,000 or more for at least two consecutive years and 62% of whom earned $100,000 or more for all four years. Table A3 provides an overview of sample sizes by institution. The furthermost right column shows the proportion of unique names of individuals from the time period examined who were employed at each university.

Table A3: Sample Sizes by Institution

	2013	2014	2015	2016	# of unique names from 2013 to 2016	% of entire sample
Algoma	31	35	43	41	53	0%
Brock	549	575	583	595	673	3%
Carleton	698	735	778	839	933	4%
Guelph	805	841	830	849	989	5%
Lakehead	274	284	300	319	379	2%
Laurentian	359	388	409	452	509	2%
McMaster	1,034	1,066	1,140	1,153	1,373	7%
Nipissing	119	145	104	158	197	1%
OCADU	95	112	108	107	168	1%
Ottawa	1,252	1,286	1,416	1,457	1,719	8%
UOIT	149	175	194	216	247	1%
Queen's	947	961	995	1,018	1,192	6%
Ryerson	946	1,022	1,046	1,190	1,351	6%
Toronto	3,084	3,252	3,356	3,626	4,186	20%
Trent	233	240	249	230	285	1%
Waterloo	1,139	1,219	1,319	1,385	1,603	8%
Western	1,312	1,375	1,441	1,486	1,751	8%
Laurier	487	504	556	566	649	3%
Windsor	509	522	546	573	665	3%
York	1,596	1,589	1,609	1,654	1,990	10%
Total	**15,618**	**16,326**	**17,022**	**17,914**	**20,912**	**100%**

Nearly 70% of names captured on the Sunshine List were faculty members according to our job category classification scheme. The second largest category was staff representing 21% of all university sector employees who earned $100,000 or more over the past four years. Table A4 shows sample sizes by year and the number/proportion of unique names included in our sample from 2013 to 2016 by job category.

Table A4: Sample Sizes by Job Category

	2013	2014	2015	2016	# of unique names from 2013 to 2016	% of entire sample
President	21	22	22	22	25	0%
Senior Admin	487	504	528	532	578	3%
Faculty	11,564	11,904	12,254	12,795	14,184	68%
Other Faculty & Librarians	1,257	1,357	1,326	1,323	1,816	9%
Staff	2,289	2,539	2,892	3,242	4,309	21%
Total	**15,618**	**16,326**	**17,022**	**17,914**	**20,912**	**100%**

Analyzing Salaries

We used "salary paid" to examine remuneration levels for both academic and non-academic employees of Ontario's universities. This includes all sources of income reported on T4 slips, excluding taxable benefits. The Sunshine List does not distinguish between different sources of income (e.g. university operating expenses, research funding, corporate/third party contracts) and instead reports an aggregate salary paid to employees for the duration of the calendar year.

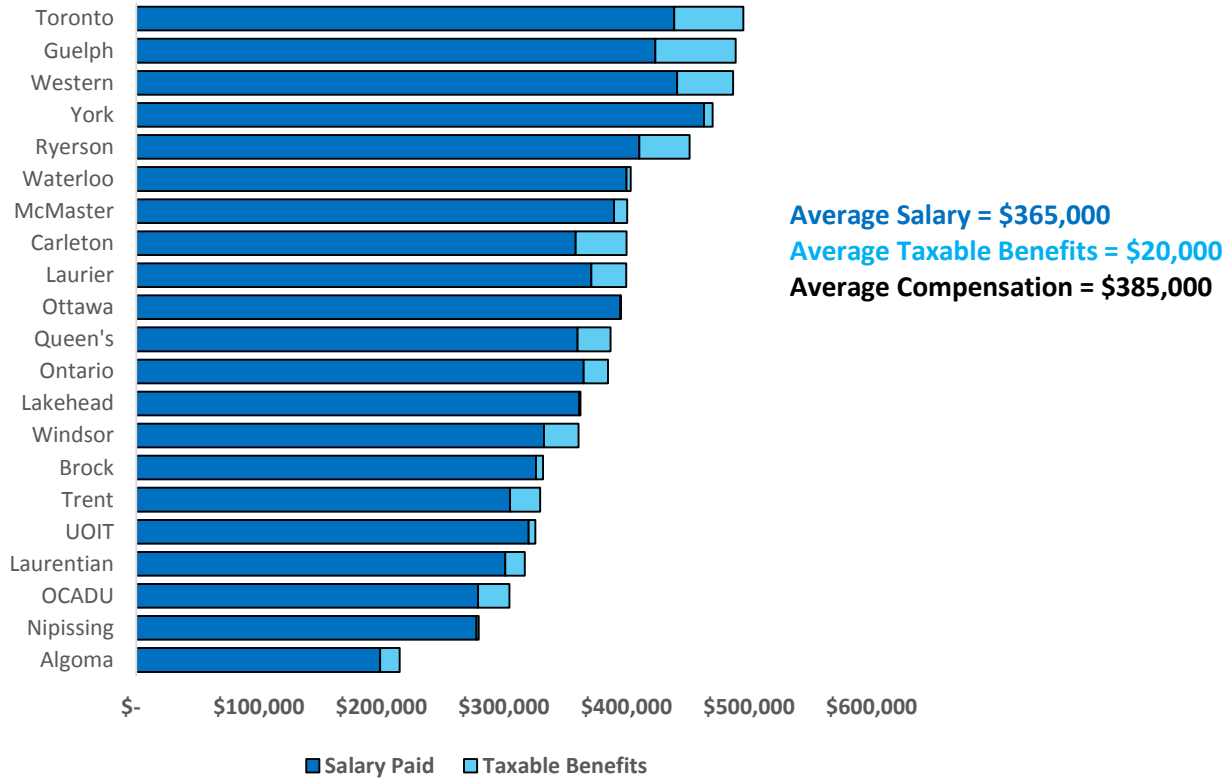
Taxable benefits are reported separately. These amounts are not very substantial for most employees. In 2016, the average taxable benefit for all employees included on the Sunshine List was $623. Taxable benefits are typically higher for presidents and certain senior administrators though. Table A5 shows the average taxable benefit by job category from 2013 to 2016.

Table A5: Average Taxable Benefits by Job Category

	2013	2014	2015	2016
President	$17,517	$17,517	$18,524	$20,956
Senior Admin	$2,188	$2,222	$2,075	$2,295
Faculty	$488	$477	$486	$520
Other Faculty & Librarians	$857	$722	$659	$669
Staff	$609	$608	$587	$597
Average	**$612**	**$597**	**$589**	**$623**

Figure A1 shows the reported salary paid and taxable benefits for incumbent presidents of Ontario's 20 public universities. Once taxable benefits are included, the average compensation was just over $385,000 for 2016.

Figure A1: Ontario Universities' Presidential Salaries and Taxable Benefits, 2016



Note: Data for Algoma is for 2015 as it experienced presidential succession in 2016.

When calculating growth in salaries over the past three years, we focus on continuing individuals who were included in the Sunshine List for at least two consecutive years. We exclude individuals whose salary decreased by less than 20% or increased by more than 35% in an effort to eliminate partial salary amounts that might skew the data. For example, a full professor who earned $150,000 in 2013, $105,000 in 2014, and who did not appear on the Sunshine List in 2015 and 2016 would be excluded from our analysis. These major fluctuations in salary are likely a result of someone starting or leaving mid-way through the year and are not reflective of their annual salary had they remained for the duration of the calendar year.

We further exclude individuals who experienced a change in position title. We could easily identify individuals who switched job categories over the four-year period. For example, a full professor in one year who becomes the dean of a faculty in the subsequent year; or the reverse — when a dean of a faculty in one year resumes the title of full professor the following year. For all but three universities (Carleton, Toronto and Laurier) we could further identify when a faculty member was promoted from an assistant professor to an associate professor, or from an associate professor to full professor. Lastly, for

14 universities (excluding Algoma, Lakehead, Nipissing, UOIT, Trent and Waterloo) we could also flag faculty members who were promoted to an assistant, associate or vice-dean (or when a faculty member no longer holds this role). We exclude these salaries from transitionary years in which someone experienced a change in job position in an effort to better reflect how salaries are really changing over time.

The following table highlights the difference in the average growth in salaries from 2013 to 2016 for everyone in our sample and everyone excluding individuals who experienced a change in position title which we were able to flag.

Table A6: Difference in the Average Annual Growth in Salaries Based on Changes in Position Title

	Everyone	Excludes those who experienced a change in job position
President	0.0%	0.0%
Senior Admin	4.1%	3.4%
Faculty	4.1%	4.1%
Other Faculty & Librarians	3.8%	3.9%
Staff	3.5%	3.5%
Average	**4.0%**	**3.9%**

Checking the Validity of the Sunshine List

There are roughly 15,000 full-time faculty in Ontario. This number is slightly higher if clinical faculty are included and slightly lower if they are excluded. Of these, 12,795 (or 85%) were captured on the Sunshine List in 2016. The missing 15% of faculty are likely junior faculty members who are earning just below the $100,000 threshold. When comparing the average salary of faculty members captured on the Sunshine List to the overall Ontario average, we find less than a $3,000 difference in average earnings.

Table A7: Comparison of Faculty Counts and Average Salaries – Sunshine List vs. UCASS/NFDP, 2016

	Sunshine List	UCASS / NFDP
Number of Faculty	12,795	15,000
Average Salary	$155,000	$152,000

A2. Additional Notes about the Data

Figure 2: Average Growth in Ontario University Operating Revenues per Year, 2005–06 to 2015–16

- Operating revenues per student is based on full-time equivalent (FTE) students, including both full- and part-time domestic and international students.
- Operating revenues were adjusted for inflation using the Consumer Price Index (CPI).

Figure 3: Average Salaries for University Presidents in 2016

Average presidential salary for:

- Newfoundland is based on the minimum remuneration as outlined in the current president's Renewal of Employment Agreement posted on Memorial University's website (Memorial University. Employment contract for current president. https://www.mun.ca/president/GK_contract.pdf)
- Nova Scotia, Ontario, Alberta and British Columbia is based on the respective provincial Public Sector Salary/Compensation Disclosure Acts.
- Saskatchewan is based on the average salary amounts published for the University of Regina and the University of Saskatchewan in the *Saskatoon StarPhoenix*.
  Macpherson, A. (2017, April 27). U of S to examine senior administrators' salaries. *Saskatoon StarPhoenix*. Retrieved from http://thestarphoenix.com/news/local-news/u-of-s-to-examine-senior-administrators-salaries
- Australia is based on the average salary for university vice-chancellors that was published in *The Australian*.
  Hare, J. (2017, August 5). Uni vice-chancellors average salary package hits $890,000. *The Australian.* Retrieved from http://www.theaustralian.com.au/higher-education/uni-vicechancellors-average-salary-package-hits-890000/news-story/f01aaa072fe5a7ceaa0c2d8154f282fb
- The United Kingdom is based on average pay for university vice-chancellors that was published in *The Guardian*.
  Khomami, N. (2017, February 23). University vice-chancellors' average pay now exceeds £275,000. *The Guardian*. Retrieved from https://www.theguardian.com/education/2017/feb/23/university-vice-chancellors-average-pay-now-exceeds-275000
- The United States is based on the average salary for all public colleges that was reported in *The Chronicle of Higher Education*.
  Bauman, D., Davis T., Myers, B., & O'Leary, B. (2017, December 10). Executive Compensation at Private and Public Colleges. *The Chronicle of Higher Education* Retrieved from https://www.chronicle.com/interactives/executive-compensation#id=table_private_2015
  Average salaries are for 2015–16 and include presidents who served the full year.

Figure 4: Ontario Universities' Presidential Salaries, 2016

- Data for Algoma is for 2015 as it experienced presidential succession in 2016. Algoma is not included in the Ontario average.

- Presidents from affiliated, constituent and federated institutions are not included.

Table 2: Growth in Incumbent (Continuing) Presidential Salaries

- Salary amounts for acting or interim presidents, as well as presidents with partial salaries, are excluded from these average annual growth rates.
- Presidents from affiliated, constituent and federated institutions are also not included.
- Table A8 (below) shows the average annual salary per year for each institution from 2006 to 2016 and Table A9 shows the annual growth.

Figure 7: Average Full-time Faculty Salaries by Province, 2016, and
Figure 8: Average Full-time Faculty Salaries by Ontario University, 2016

- Average salaries include all full-time teaching staff and exclude clinical faculty (e.g., medical, dental)

Table 3: Ontario Universities — Sunshine List Summary by Employee Category

- Although there are only 20 Ontario universities, there were 22 university presidents included in the 2016 Sunshine List as both Algoma and Ottawa experienced a change in presidency in 2016. Both the incoming and former presidents were captured on the Sunshine List and both are included in the sample size.
- The total average salary of $150,000 includes all individuals captured on the Sunshine List in 2016 regardless of position title.
- We do not show average salary for “Other Faculty & Librarians” and “All Other Staff” as we have no comparative data to determine whether these averages are representative. We do show the average year-to-year change in salary and the three-year annual average growth rate for these staff.

Figure 10: Age Composition of Ontario Full-time Faculty, and
Figure 11: Age Distribution of Ontario Full-time Faculty Aged 66 and Over, and
Table 4: Average Salaries and Cost of Faculty by Age Group, 2016

- Includes all full-time tenure or tenure-stream academic staff from institutions that reported faculty counts and salary information for every year from 2005 to 2016. This excludes Algoma (which is not a member of the OCAV Data Exchange) and Lakehead (which joined the consortium in 2013).
- Affiliated, constituent and federated institutions are not included.
- Clinical and medical faculty are not included.

Table 5: **Full-time and Part-time Faculty – Hiring Options and Considerations**

- The average annual salary for full-time academic staff is for the 2016 academic year and excludes clinical and medical faculty.
- The average course load for full-time faculty is based on COU's *Faculty at Work* Study (2018).
- The average cost per course for part-time faculty reflects the average stipends (including vacation pay) per half-course equivalent as outlined in institutional collective agreements, memoranda of agreement and human resources salary memos for the 2016 academic year. The data was provided by the Ontario Confederation of University Faculty Associations (OCUFA) and is shown more fully in Table A10.

Table A8: Ontario Presidential Salaries, 2006 to 2016

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Algoma			$ 161,584	$ 165,949		$ 199,000	$ 199,000	$ 199,000	$ 199,000	$ 199,000	
Brock		$ 286,799	$ 330,896	$ 333,576	$ 333,576	$ 333,576	$ 333,576	$ 333,576	$ 333,576	$ 333,576	$ 326,076
Carleton		$ 337,174		$ 358,469	$ 320,072	$ 352,072	$ 358,475	$ 358,473	$ 355,269	$ 358,468	$ 358,472
Guelph	$ 329,430	$ 416,606	$ 434,518	$ 434,518	$ 440,590	$ 440,590	$ 465,724	$ 440,590		$ 423,648	$ 423,648
Lakehead	$ 236,031	$ 245,428	$ 266,173	$ 272,890		$ 360,000	$ 360,000	$ 360,000	$ 360,049	$ 360,049	$ 360,040
Laurentian	$ 260,434	$ 269,491			$ 304,647	$ 301,155	$ 301,155	$ 260,027	$ 299,115	$ 301,156	$ 301,156
McMaster	$ 422,945	$ 494,807	$ 524,435	$ 524,435		$ 381,317	$ 387,287	$ 387,287	$ 389,837	$ 402,870	$ 389,838
Nipissing	$ 233,372	$ 250,200	$ 264,312		$ 277,600	$ 277,600			$ 287,215	$ 292,023	$ 277,600
OCADU	$ 212,375	$ 229,902	$ 289,365	$ 257,500	$ 274,745	$ 386,250	$ 257,500	$ 257,500	$ 257,500	$ 283,250	$ 278,958
Ottawa	$ 310,862	$ 327,502		$ 395,000	$ 395,000	$ 395,000	$ 395,000	$ 395,000	$ 395,000	$ 395,000	$ 395,000
UOIT		$ 237,500	$ 287,500	$ 325,000	$ 329,875		$ 320,000	$ 320,000	$ 320,000	$ 325,172	$ 320,000
Queen's	$ 329,402	$ 340,000	$ 350,000		$ 382,800	$ 382,400	$ 360,800	$ 362,200	$ 364,500	$ 360,500	$ 360,000
Ryerson	$ 295,417	$ 312,500	$ 344,583	$ 365,000	$ 365,000	$ 365,000	$ 445,780	$ 370,475	$ 370,475		$ 410,475
Toronto	$ 374,220	$ 380,100	$ 380,100	$ 380,100	$ 380,100	$ 384,251	$ 388,401		$ 398,737	$ 438,892	$ 438,892
Trent	$ 278,681	$ 291,189	$ 303,579		$ 305,300	$ 305,000	$ 305,000	$ 305,000		$ 307,000	$ 305,000
Waterloo	$ 416,232	$ 458,572	$ 467,834	$ 485,040		$ 486,299	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 400,000
Western	$ 328,761	$ 355,890	$ 384,375		$ 440,000	$ 512,600	$ 479,600	$ 479,600	$ 924,000	$ 0	$ 441,354
Laurier	$ 339,566		$ 333,135	$ 318,270	$ 354,871	$ 365,517	$ 371,418	$ 364,925	$ 371,418	$ 371,418	$ 371,418
Windsor	$ 292,103	$ 305,993		$ 317,000	$ 317,000	$ 317,000	$ 317,000	$ 317,000	$ 317,000	$ 317,000	$ 332,606
York	$ 351,604		$ 454,539	$ 478,073	$ 480,030	$ 479,262	$ 478,852	$ 478,406	$ 463,105	$ 463,105	$ 463,105

Note: Cells highlighted in blue indicate periods where universities experienced presidential succession. We exclude salary amounts for the first and final year of a presidency if they are partial salary amounts. Salary amounts for acting or interim presidents are also excluded.

Cells highlighted in green are excluded from the analysis due to an anomaly in pay between 2014 and 2015.

Table A9: Annual Growth in Ontario Universities Presidential Salaries, 2006 to 2016

	2006–2007	2007–2008	2008–2009	2009–2010	2010–2011	2011–2012	2012–2013	2013–2014	2014–2015	2015–2016
Algoma			3%			0%	0%	0%	0%	
Brock		15%	1%	0%	0%	0%	0%	0%	0%	-2%
Carleton				-11%	10%	2%	0%	-1%	1%	0%
Guelph	26%	4%	0%	1%	0%	6%	-5%			0%
Lakehead	4%	8%	3%			0%	0%	0%	0%	0%
Laurentian	3%				-1%	0%	-14%	15%	1%	0%
McMaster	17%	6%	0%			2%	0%	1%	3%	-3%
Nipissing	7%	6%			0%				2%	-5%
OCADU	8%	26%	-11%	7%	41%	-33%	0%	0%	10%	-2%
Ottawa	5%			0%	0%	0%	0%	0%	0%	0%
UOIT		21%	13%	2%			0%	0%	2%	-2%
Queen's	3%	3%			0%	-6%	0%	1%	-1%	0%
Ryerson	6%	10%	6%	0%	0%	22%	-17%	0%		
Toronto	2%	0%	0%	0%	1%	1%			10%	0%
Trent	4%	4%			0%	0%	0%			-1%
Waterloo	10%	2%	4%			-18%	0%	0%	0%	0%
Western	8%	8%			17%	-6%	0%			
Laurier			-4%	12%	3%	2%	-2%	2%	0%	0%
Windsor	5%			0%	0%	0%	0%	0%	0%	5%
York			5%	0%	0%	0%	0%	-3%	0%	0%
Ontario Average	**8%**	**9%**	**2%**	**1%**	**5%**	**-2%**	**-2%**	**-1%**	**2%**	**-1%**

Average Annual Salary Growth from 2006 to 2011 = 4.8%

Average Annual Salary Growth from 2011 to 2016 = -0.7%

Average Annual Salary Growth from 2006 to 2016 (10 years) = 2.0%

Source: Ontario Sunshine List

Note: Cells highlighted in blue indicate periods where universities experienced presidential succession. We exclude salary amounts for the first and final year of a presidency if they are partial salary amounts. Salary amounts from acting or interim presidents are also excluded.

Cells highlighted in green are excluded from the analysis due to an anomaly in pay between 2014 and 2015.

Table A10: Part-time Per Course Compensation

Institution	Ass'n	Classification and/or Level	2016-17
Algoma	FA	Part-time CAS / PTCF 0-29.5	$6,289
		Teaching Adjunct / PTCF 90+	$6,408
Lakehead	FA	Level 1 (30 or fewer HCE)	$7,207
		Level 2 (31–60 HCE)	$7,410
		Level 3 (more than 60 HCE)	$7,816
Laurentian	FA	Without establishment	$7,359
		With establishment	$7,727
		Retired sessional members	
Nipissing	FA	Instructor	$6,450
		Instructor with RFR	$6,650
		Grad Instructor	$6,450
		Grad Instructor with RFR	$6,650
OCAD	FA	L1 Liberal Studies	
		L2 Liberal Studies	
		L3 Liberal Studies	
Queen's	FA	Min experience; no enrolment supplement	$7,998
		Max experience; no enrolment supplement	$9,561
		Min experience; with enrolment supplement	$8,998
		Max experience; with enrolment supplement	$11,355
Waterloo			$8,082
Western	FA	Other PT	
		First Refusal Status / Member & Preferred Status	$7,504
		Tier 1 - RMYA / Standing Appt.	$7,588
		Renewable Multi-Year / Standing Appt.	$7,892
Wilfrid Laurier	FA	Non-seniority undergrad	$7,487
		Seniority undergrad	$7,487
		Non-seniority graduate	$7,575
		Seniority graduate	$7,732
Windsor	FA	Sessional Instructor	$8,240
Brock	CUPE	Instructor	$6,411
Carleton	CUPE	Contract Instructor	$7,050
Guelph	CUPE	Sessional Lecturer - Minimum	$7,159
		Sessional Lecturer - Maximum (of 5 steps)	$9,365
McMaster	CUPE	Sessional Faculty - Minimum	$7,025
		If 18 units aggregate seniority	$7,025
Ottawa	APTPUO	Regular part-time academic staff	

Institution	Ass'n	Classification and/or Level	2016-17
Ryerson	CUPE	Part-time / Sessional Instructor - Minimum (est.)	$6,444
		Part-time / Sessional Instructor - Maximum (est.)	$8,241
Toronto	CUPE	Sessional Lecturer I	$7,305
		Sessional Lecturer I - Long Term	$7,443
		Sessional Lecturer II	$7,766
		Sessional Lecturer III	$8,125
U of T St. Michael's	CUPE	Course Instructor - Theology	$7,304
		Course Instructor - Arts & Science	$7,304
		Course Instructor II	$7,597
U of T Victoria	CUPE	Sessional Lecturer I	$7,305
		Sessional Lecturer II	$7,766
Trent	CUPE	Course Instructor	$7,544
UOIT	PSAC	Standard	$7,200
		Premium rate C	$8,400
York	CUPE	Course Director	$8,725
King's	CUPE	0 Years of Service	$6,660
		N Years of Service	$7,273

Source: Institutional collective agreements, memoranda of agreement and human resources salary memos for the 2016–17 academic year. The data was provided by OCUFA.

The faculty associations mentioned in the above charts are as follows: University specific faculty association (FA), Association of Part-time Professors University of Ottawa (APTPUO), Canadian Union of Public Employees (CUPE), and Public Service Alliance of Canada (PSAC),

Additional notes:

- Stipends: as of beginning of fall term
- Vacation pay: not 4% in all cases
- Classification: may not be current nomenclature in all cases
- Highlighted cells (in gray): denotes ratified agreement; stipends not yet confirmed
- Ryerson: estimated HCE amount
- Western: Includes grandparented members; members not grandparented and not participating in administered benefits program receive 4% in lieu of benefits; included in calculation of vacation pay.

Appendix B: A Literature Review on the Quality Impact of Part-time Instructors

There is no consensus indicator of the quality of a postsecondary teacher. Some define success in terms of student grades, persistence or graduation rates, while others define it according to student evaluations of teaching, and still others by whether students choose to take another class in the discipline. At HEQCO, we are heavily invested in exploring the direct measurement of learning itself — the core outcome we desire from teachers' efforts.

These diverse approaches to assessing the quality of teaching have not limited research on the subject. Most of this research has been done at American institutions. On balance, the existing evidence regarding the impact of an instructor's appointment status on the quality of their teaching is inconsistent. Some studies have concluded that part-time faculty are less effective teachers, a smaller number of studies have concluded that they are more effective, and many have found no difference in performance (Banachowski, 1996). Here we review a small sampling of this work.

Using administrative data from a large Canadian university between 1996 and 2005, Hoffman and Oreopoulos (2009) found that whether an instructor teaches full or part time, does research, has tenure, or is highly paid has no significant influence on a student's likelihood of dropping a course or taking subsequent courses in the same subject area. These outcomes were unrelated to the student's perception of the instructor's effectiveness. The authors emphasize that effective and non-effective teachers could be found within each of the faculty categories.

Figlio, Schapiro and Soter (2015) studied eight cohorts of first-year students at Northwestern University and concluded that those who take an introductory-level course with a non-tenure-track faculty member are more likely to take other classes in that subject matter and perform better than students who study under tenured faculty members. This was true in a variety of subject areas and was particularly pronounced for students whose academic performance was below average. This seemingly simple finding, however, obscures several important qualifications. In fact, three-quarters of FT faculty were equally as successful as non-tenure-track faculty; the overall difference between the two groups was driven entirely by the poor performance of the least effective instructors among tenure-track faculty. In addition, a substantial majority of the non-tenure-track faculty at Northwestern are full-time teaching-stream faculty, rather than working on short-term course-based contracts.

A related study by Figlio and Schapiro (2017) found that among tenure-track faculty at Northwestern University, there was no association between research and teaching quality (using the same metrics described in the study above). That is, an individual's research performance did not predict his or her teaching performance, and vice versa. The finding has several interesting implications and reinforces the suggestion made by Figlio et al. (2015) that excellent instructors need not also be strong researchers, and that under the correct conditions, teaching-stream faculty can play an important role in strong undergraduate programs.

Ran and Xu (2017) studied the full records of almost 69,000 students in 22 public two-year colleges and over 87,000 students in 11 public four-year colleges in an anonymous state college system. They found that although students taught by a non-tenure-track faculty member received higher grades in introductory courses, they were less likely to take another course in the field and, if they did, were more likely to receive lower grades in those courses. The poorer performance of these students was accounted for by a number of factors, the most important of which was that non-tenure-track faculty were less likely to hold a PhD and be appointed on short-term contracts.

Bettinger and Long (2004) tracked 25,000 first-year students at 12 public four-year colleges in Ohio. They found that taking courses taught by course-based and graduate student instructors generally reduced the number of credit hours that a student would subsequently take in a subject area as well as their likelihood of majoring in that subject, though the effects were small and differed widely by discipline. The study also compared the outcomes for students who had different types of instructors as their introduction to a particular subject. Adjuncts and graduate student instructors were found to be weaker in the humanities and sciences, while students in certain technical and professional fields (i.e., computer science, business and architecture) performed better with adjunct faculty. Adjunct faculty under the age of 40 were found to be the least effective teachers.

In a study that focused on student course evaluations, Landrum (2009) found no difference between the performance of part-time and full-time faculty. This study examined data from 361 undergraduate courses in eight departments at Boise State University. Even though part-time faculty performed with a lower degree of institutional support (e.g., they were less likely to have an office or a university email account), had less experience teaching and taught a greater proportion of early-credential students, the authors found no difference in student evaluations of teaching or of course grade distributions between part-time and full-time instructors.

Ehrenberg and Zhang (2004) considered the effects of part-time faculty use on student graduation rates at two-year and four-year colleges and universities in the US. Examining data from 1986 to 2001, they found that increases in either the percentage of part-time faculty or the percentage of non-tenure-track full-time faculty were associated with reduced graduation rates. The size of these effects was larger for public institutions than for private ones.

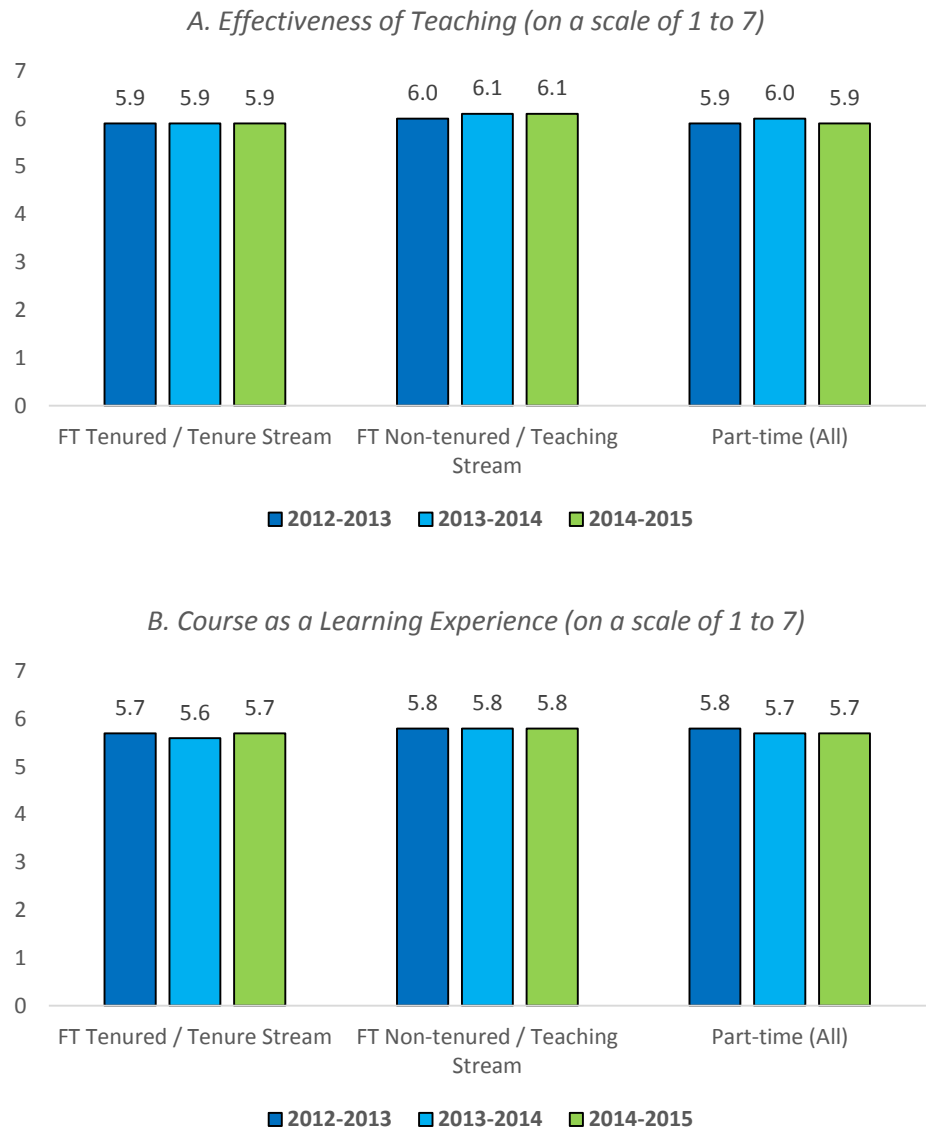
Umbach (2006) reaches similar conclusions (see also Jacoby, 2006, focusing on US community colleges), but argues that differences in performance between part-time and full-time faculty may be a function of their working conditions. That is, a lack of phones, offices, mailboxes, computers and other elements undermined the ability of part-time faculty to be available to, or to work effectively with, students outside of the classroom. Umbach shows that, when paid by the hour to teach, part-time faculty meet with students less frequently, use active and collaborative pedagogical techniques less often, spend less time preparing for class, and have lower academic expectations than tenured and tenure-track faculty. Kezar (2013) underscores the fact that universities and colleges often pay insufficient attention to ancillary support that could increase the effectiveness of part-time faculty.

In 2012, in response to the public attention that arose around labour disputes, the Auditor General of Ontario reviewed student evaluations of part-time faculty at three Ontario universities (Office of the Auditor General, 2012). The account that emerged from this investigation provides little basis for drawing a firm conclusion on the matter. At the one institution where the Auditor General could access

the results of student evaluations, he noted that part-time instructors were rated lower by students than full-time faculty. At a second institution, he was informed that a university-wide course evaluation was being developed and that "…the vast majority of faculty received a teaching rating of 'good'…" on the existing evaluations that they were able to review. At a third institution, the Auditor General was unable to access student evaluations because the faculty collective agreement deemed them to be the property of individual instructors. The report noted that at one of the universities there was no requirement to administer student evaluations in courses taught by part-time instructors. None of the universities visited provided written annual performance appraisals to part-time faculty.

Data regarding the relative quality of teaching by different types of faculty in Ontario's universities is scarce or non-existent and there is essentially no information on the topic from the college sector. However, Western University shared the results of course/instructor evaluations completed by students in all undergraduate courses. This data covered the years 2012 to 2015 and involved evaluations by 137,000 students in 3,450 classes. Student responses to items assessing "effectiveness as a teacher" or "course as a learning experience" (Figure B1) provide no evidence of a difference in the quality of teaching whether by tenured faculty, non-tenured full-time faculty or part-time faculty.

Figure B1: Undergraduate Course and Instructor Evaluations (Western University, All Faculties)



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Appendix C: Workload Provisions in Ontario Full-time Faculty Collective Agreements

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
Algoma	2012–15	Yes	No Separate agreement	Article 17 15 credits per year (higher than typical due to size of university and willingness of members to offer courses to maintain viable programs)	Article 17 (b): Assignment and Distribution of Workload Members can request a three-credit reduction	No reference	Article 19: Annual Report of Activities and Teaching Evaluations provides list of content items
Brock	2017–20	Yes	No Separate CUPE agreement	Article 24 specifies 40/40/20 24.03 (d) Contains clause to increase teaching in the case of research performance below departmental norm 24.04(a) (iv) in addition to reasonable unscheduled teaching, the max normal scheduled teaching load shall be 2 full graduate or undergraduate courses Each department required to submit Annual Workload Plan (AWP) and Normal Workload Standards Plan to Dean	Article 26: Reduced Load Reductions of up to 50% of normal workload for maximum of three years with possibility of two one-year extensions	Article 19.06 Instructional Limited Term Appointments (ILTA) can be made in which faculty teach 8 half-courses. Their workload is traditionally 80% teaching and 20% service	Article 12.07: Annual Report and Teaching Evaluation requires submission of an annual report and updated CV Article 35 Performance Review includes review of annual report

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
Carleton	2014–17	Yes	Includes instructors teaching >2 full-credit courses	Article 13 50/35/15 <2.5 credits Contains clause to increase teaching in the case of research performance below departmental norm (after at least five consecutive years of less performance)	Article 9.10: Reduced-time Appointments Article 13.5 Reduced Workload with Prorated Pay not to exceed 2/3 of full workload	Article 9.8: Instructor Employees Bargaining unit includes instructor employees, those who are engaged primarily in teaching or perform duties specifically defined by a job description which do not include research	Various articles refer to an annual report related to tenure, CDI (procedures for denial) no documentation/list of data/info to provide
Guelph	Exp. June 30, 2017	Yes	Includes faculty and veterinarians; excludes sessionals and lecturers	Article 18 40/40/20 18.19 "Chair and Dean shall use a fair, equitable and transparent" method to allocate workload 18.19.4 "Teaching workload norms in Departments/Schools shall be no more than those in effect as of the date of the Agreement."	Article 54: Reduced Workload Apply for reduced workload for a three-year period (can be followed by additional periods) with prorated salary	18.31.2: Teaching focused faculty tripartite with 70% teaching load	21.63 Performance Review biennially Various articles related to tenure, CDI and performance increments; biennial, separate process re: tenure
Lakehead	2016–20	Yes	No 3.01 Contract Lecturer	Article 16 16.02.01.02	16.02.01.03 The teaching load for probationary faculty	See Letter of Understanding #7 Commencing September 1, 2016	Article 16.06: Annual Report Refers to standardized submission format with list

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
			Member is considered to be PT 35.02.01 (B) Contract lecturer salaries are noted Letter of Understanding #5 (p. 152) Orillia Contract Lecturer Letter of Understanding #6 (p. 153-156) CCLM – as of Sep 1/16 can become Continuing Lecturer Member	The teaching load for full-time faculty normally shall not exceed 5 HCEs during an academic year. The teaching load for faculty members who are more active in teaching and service and less active in research and other scholarly and creative output shall not exceed 6 HCEs during an academic year.	members and those members hired pursuant to 19.01.04 (B)(e) shall not exceed 4 HCEs during an academic year for the first year of his/her appointment, or, at the discretion of his/her Dean in consultation with the member, the second year of his/her appointment. 34.01.04.05 The required workload of faculty members on phased retirement shall be composed exclusively of teaching duties. This does not preclude such members from volunteering for other duties/activities that are acceptable to his/her Dean. The normal teaching load of a member on phased retirement shall consist of four HCEs in Year 1, three HCEs in Year 2, and two HCEs in Year 3.	two categories of teaching-focused faculty positions are recognized (Continuing Lecturer Members and created 12 Teaching Focused Faculty Members) with a teaching load of <8 half courses Letter of Understanding (p. 155 Cat 1.2) CLM teaching load shall not exceed 6 HCEs	of inclusions; Dean to respond with "constructive suggestions and reasonable support for the purpose of enhancing the faculty member's performance."

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
					28.03 – reduced load due to administrative duties and Letter of Understanding #18 37.04.06 Partial Leaves - reduction in any of three areas (teaching, research or community) – benefits and salary prorated		
Laurentian	2014–17	Yes	Yes Includes sessional members	Article 5.40 40/40/20 "Fair and equitable assignment of workload" 5.40.4 "Maximum normal teaching load per academic year shall be two full courses or 12 credit equivalents in Science, Engineering and Architecture and 2.5 full courses or 15 credit equivalents in other faculties." Members can bank/owe teaching credits up to a maximum of six	Article 5.40: Members can buy out up to 15 credits over five years and request reduced teaching load to increase scholarly activity Article 7.35: Voluntary Reduced Workload Up to 50% reduction in workload with salary reduction for period of one year	No reference	Article 5.45: Annual Reports and 5.50: Assessment of Member's Performance refer to standardized annual reports for members as well as assessment of performance Article 8.20 for procedures to award PTR increments using annual reports

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
McMaster*	2017-2019	Yes Includes senior academic librarians	No Excludes sessional faculty (who are part of CUPE)	40/40/20 (teaching/research/service) Guidelines for Load Teaching: "Considerable flexibility is desirable in arranging the teaching load of the individual faculty member in a particular year. This should be exercised by consultation between the Chair and the individual"	Faculty Reduced Policy and Faculty Reduced Workload Policy (Phase in to Retirement): Eligible members can reduce workload by as much as 50% for a period of up to 3 years. Standard form of reduced workload will be an equal proportionate reduction in teaching, research and service and corresponding reduction in salary.	No direct reference.	Faculty Career Progress / Merit Plan to reward performance as teacher and scholar and for level of other contributions made as members of the University.
Nipissing	2015–19	No – potential inclusion under review (Appendix L)	No Separate agreement for contract faculty	Article 27 Five three-credit courses	Article 27.11: Reduced workload with pro-rated pay temporarily for maximum of five years; can be made permanent for maximum of ten years (at which point member either retires or leaves employment) Article 27.12: Reduced workload via buy-out reduction in normal teaching load up to one full course equivalent in	Six three-credit courses *also have research intensive stream faculty who teach four three-credit courses	Article 18: Rights and Responsibilities refers to CV and Annual Report Article 27: Academic Workload refers to Annual Report and Dean's Assessment

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
					return for amount equal to overload stipend		
OCADU	2016-20 MOA	No	Yes	Article 27 40/40/20 Effective July 1, 2018 Studio: 9 SCH/week LAS: 7.5 SCH/week Effective June 30, 2019 Studio: 7.5 SCH/week LAS: 7.5 SCH/week	Pro-rated for partial load	70/10/30 An individual who is actively engaged in a program of Practice/Research may request to Dean for approval of an assignment of 70/10/20 Effective July 1, 2017 Studio: 13.5 SCH/week LAS: 9 SCH/week Effective July 1, 2018 Studio: 12 SCH/wk LAS: 9 SCH/wk Effective June 30, 2019 Studio: 10.5 SCH/wk LAS: 9 SCH/wk	Article 24: Faculty Review and Promotion Standards of performance for academic ranks in Appendix B 24.2 refers to submission of Annual Reports 24.3 refers to Performance Reviews
UOIT Separate agreement for teaching faculty (2017-20)	2015–18	No	No	Article 16 40/40/20 Maximum equivalent of four standard courses/year	Article 16.06: Reduced workload one-year arrangements which may be part of phased retirement; typically lowered to 50% workload	Teaching Faculty are in a separate bargaining unit with 70/20/10 split for Teaching/Service/Other. Deviations permitted to reflect specific activities as determined by the Dean in discussion	Article 17: Performance Review Requires Annual Activity Report to include evaluations, etc. assessed as unsatisfactory up to outstanding

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
						with Teaching Faculty Member. There is NO expectation of research as part of Teaching Faculty employment, but research can be done as part of "Other". New Teaching Faculty collective agreement in place from Nov. 7, 2017 – June 30, 2020.	
Ottawa	2016–18	Yes	No Separate agreement	Article 22 Average teaching load calculated by department 22.2.6 "Involvement in additional teaching cannot compensate for weakness of performance in other components of workload"	Article 30: Reduced workload for amount of time as agreed, up to 50% reduction with prorated pay	No reference	Article 23.1: Review and Evaluation references submission of Annual Report and includes Assessment of performance/workload; Annual Report to include planning for next year; reference also in promotion (Art. 18)
Queen's	2015–19	Yes	Yes	Article 37 unit workload standards Each unit shall have its own workload standard (must be reviewed at least every 10 years)	Article 26: Reduced Responsibility Appointment intended to allocate time and effort in accordance with scholarly interests/personal obligations; may not exceed three years	No reference	Article 28.2: Annual/Biennial Report in standardized format with list of inclusions Referenced in Article 15 Academic Responsibilities Article 29: Assessment and Evaluation of Teaching; outcome contributes to

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
					Article 27: Workload – may request period of reduced teaching responsibility for not more than two years; normally total buyout of teaching not permitted (exceptions)		biennial merit rating (specifically excluded from Renewal/Tenure/Promotional Files); faculty member's annual merit score can be 0-7 (modal), 12, 15 or 20 based on performance across three dimensions (teaching, research, service)
Ryerson	2015–18	Yes	No Separate agreement with CUPE 3904, unit 1	Article 10: 10.11 "appropriate combination of teaching, administrative duties and service; and scholarly, research, and creative activities (SRC) 10.12. C.1 Maximum course load for tenure stream faculty is four half courses during an academic year MOU #7 provides process for departments with teaching norm above this level to propose new model to reduce departmental norm to four course maximum 10.12. C.2	10.8 A and 10.15 A Voluntary Reduced Workload up to 50% reduction in workload/salary if member has min five years' service, for a 12-month period Article 10.8.B and 10.15.B To facilitate gradual retirement, tenured faculty whose age plus years of service equals 80 or more, may request a 50% workload/salary reduction with all of the work done in one specified semester (Fall or Winter)	Not currently. Memo of Understanding 23 – Joint Committee on Teaching Stream Faculty to discuss and consider concept (April 1, 2018 reporting date)	Articles 5A/B Evaluation of teaching and 5A.5 Teaching assessments refers to submission of Annual Report Article 13.2: Salaries, Increments and Allowances refers to submission of Annual Report as part of process to achieve CDI; includes process and submission guidelines, necessity of satisfactory rating; student evaluations in Appendix F

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
				Faculty may assume one course in addition to the normal teaching norm on the basis that there will be a reduced expectation of SRC expectation 10.17 Definition of teaching standard varies between department/discipline			
Toronto*	MOU 2014–17	Yes	Faculty with appointments longer than 12 months + limited number of faculty not otherwise represented TAs, Sessional, Contract, etc. CUPE separate agreement	Appendix D "Units vary in their contributions to the University mission and so it is understood that what constitutes normal workload will vary from one unit to another. At the same time, unit members will experience different demands from year to year in the balancing of domains of workload, and so an individual member's workload may vary from year to year and from a colleague's workload within a year. This flexibility is important for			Reference in administration of PTR/Merit Scheme re: evaluation process and criteria; annual activity report and updated CB

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
				recognizing the unique missions of units and the differences in agreed upon activities of individuals within units."			
Trent	2016–19	Yes	No Part-time instructors have a separate agreement	VIII.4 Allocation of Duties VIII.4 Departmental Criteria for Allocation of Teaching Duties to be made available internally	III.4.2. Revision from Full-time to Part-time status — members may request to revise to 50%, will have the right to resume previous status for up to 36 months	III.2 Types of Appointment indicates that a Senior Lecturer with Permanent is a teaching intensive appointment	VIII Duties and Responsibilities VIII.8 Annual Reports and VIII.9 Annual Performance Review include submission guidelines etc.; performance review will result in assessment around meeting expectations/not VII.14.1 Merit – 30 awards each year; not eligible if annual performance review "does not meet expectations"; single career development increments
Waterloo*	Policies and MOA	Membership open to librarians	Yes	Article 13.5.5 Faculty Salaries, Annual Selective Increases and Member Evaluation Procedures 40/40/20 13.5.5 "There is no intended linear relationship between the percentage for teaching and the	Temporary Reduction in Workload (see Policy 3)	Continuing lecturer 80/20	Policy 77 Performance Standards and Performance Assessment refer to annual performance assessment to support tenure and promotion 13.5 Member Evaluation Refers to faculty evaluation guidelines with annual review resulting in one of nine numerical performance ratings

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
				number of courses taught."			
Western	2014–18	Association represents, separate agreement	Yes	Workload clause Does not specify normal workload "Normal Workload, as defined in this Article, of Probationary or Tenured Members shall balance Teaching, Research and Service such that the commitment of activity in each of Teaching and Research shall be approximately equal and each shall be greater than in the area of Service." "In each Unit, the specific details of the Normal Workload of Probationary and Tenured Full-time Members shall be identified. The Normal Workload must be consistent with the operating obligations of the Unit and the University, and must have been approved by the Dean."	Alternative Workload clause Reduced Workload clause allows member to reduce to a minimum of 50%	No specific teaching stream / intensive faculty category Full-time Limited-term faculty appointments can be structured to be teaching intensive Part-time teaching only appointments: Limited Duties Appointments and Standing Appointment	8-13 Annual Performance Evaluation includes detailed Annual Performance Evaluation process, criteria, exemptions (pregnancy leave) etc. as well as Annual Report requirement/content

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
Wilfrid Laurier	2017–20	Yes	Yes Separate agreement	Article 18: Duties, Responsibilities and Workload of Faculty Members 18.2.1: Teaching load norms and variations: norm shall be equivalent of four one-term courses 18.2.3: Student/Faculty Ratio and Faculty Complement 25:1	Article 20: Appointment With Reduced Workload allows members to request reduced workload	Article 13.2: Appointment of Faculty / Professional Teaching Positions; number of positions shall be no greater than 6% of the number of tenure-track and tenured Members; normal assigned teaching load six one-term courses	Article 10: Evaluation of a Member's Performance refers to annual process Article 18.5: Annual Report of Activities includes list of content and process
Windsor	2017-21	Yes	Yes	Article 5: Rights and Responsibilities 5.13: "There shall be no increase in the overall average teaching load (defined as including all course assignments and remissions) of an AAU unless agreed otherwise by the parties." 5.15: University Review Committee on Faculty Workloads established	Article 14.37: Reduced Responsibility allows permanent or temporary reduction in workload up to 4/5	Article 55 Sessional Lecturers	Article 5: Rights, Duties and Responsibilities as a Scholar Researcher refers to submission of a current CV with detailed inclusions outlined in Article A re: PTR
York	2015–18	Yes	No	Article 18.08.1: Workload of Faculty Members	18.26: Reduced-Load	Article 12.07: Alternate stream appointments	Appendix M re: Merit Awards refers to annual review upon which merit pay

University Faculty Association	Duration of Agreement	Includes Librarians	Includes Part-time	Normal Workload for Full-time Faculty	Reduced Workload Provisions	Normal Workload for Teaching Intensive Faculty	Review
				Normal workload to be "defined by current practices" but Unit Workload Committee struck to try to work down normal teaching load of 3.0 FCE per year down to 2.5 FCE 18.15 60 annual 0.5 course release for faculty to focus on research			is based; evaluation based upon information provided by employee (up-to-date CV)

Appendix D: Cross-jurisdictional Review of Faculty Workloads

This document expands upon earlier HEQCO publications related to faculty workload and productivity[27] with a survey of international practices and an overview of the state of play in Ontario. With a particular focus on the US, we will consider how institutions and governments are measuring workload and contemplate the impact and efficacy of those measures.

Traditional faculty workload reports — particularly in public, research-intensive universities — provide an accounting of the hours faculty members spend doing their jobs. They include time spent on teaching, research and administrative work on behalf of the institution. This workload relationship is typically presented as a 40/40/20 scenario, whereby faculty allocate 40% of their time to teaching, 40% to research (which includes scholarly and creative activities), and the remaining 20% to university service. While the concept of workload is fairly straightforward, the task of conceptualizing a representative, accurate and consistent way to measure it for postsecondary faculty is not. When workload is presented as a measure of productivity within the context of a publicly funded postsecondary education system, things get even more complicated.

Faculty Workload in the US

The United States provides an instructive supply of faculty workload studies. (See box on next page for a brief overview of workload practices in other jurisdictions). The American Association of University Professors' (AAUP) statement on faculty workload dating back to 1969 states that "no single formula for an equitable faculty workload can be devised for all of American higher education" (AAUP, 1969). A study published in *Academe* more than 20 years ago indicates that many state legislatures had or were developing workload legislation to address demands for greater productivity during a time of fiscal pressure. In the early- to mid-1990s, the AAUP was publishing warnings about attempts to diminish the scope of academic freedom and institutional independence through performance assessment and demands for cost efficiency monitoring ("The Politics of Intervention," 1996).

Workload is a fundamental component of faculty productivity, and there are several ways it is managed and monitored in public higher education. The most common is the institutional workload policy. Second, there are measures and reports conducted by the state higher-education governing body. The third — and most restrictive platform for considering workload — is state law. Finally, there are a handful of national studies of university faculty that collect workload data. This paper will provide examples of policy, practice and discourse related to faculty workload and productivity in each of these categories, and consider their impact on faculty performance and validity in measuring productivity.

[27] In its *Report from the Expert Panel to Assess the Strategic Mandate Agreement Submissions* (HEQCO, 2013), HEQCO explicitly connected the themes of productivity and efficiency within the context of delivering quality education during times of financial restraint. With regard to faculty productivity, the authors of a subsequent HEQCO paper, *Teaching Loads and Research Outputs of Ontario University Faculty Members: Implications for Productivity and Differentiation* (Jonker and Hicks, 2014), used publicly available data to conduct an analysis of teaching loads, research output and salary for faculty in the economics, chemistry and philosophy departments at ten Ontario universities. The study concluded that productivity gains could be achieved if faculty members who were not active in research compensated by teaching double the load of their research-active colleagues.

Faculty Workloads: An International Perspective

Ireland:
Workload management models have typically grown out of an environment of constrained resources, though this type of accountability model is relatively young in the country compared to other jurisdictions. The Public Service Agreement in 2010 (known as the Croke Park Agreement) mandated formal workload management models (HEA, 2014). Though these agreements are still developing, they would include various measures of teaching (student contact hours, prep time, grading), research (peer-reviewed publications, citation indices, number of PhD students supervised/graduated) and service (student support, committee work, policy development). Some include full economic costing, and this is identified as a best practice. Intended benefits are transparency and equity of workload, improved human-resource management, enhanced appreciation for academic staff, and improved opportunities for efficiency and management.

The United Kingdom:
In the UK, institutions funded by the Higher Education Funding Council for England (HEFCE) have been reporting detailed academic costs since the early 2000s. These reports include time allocation schedules, which indicate by percentage, the time faculty spend on teaching, research and other activities. As in Ireland, the stated purpose of measuring workload is to support accurate accounting of academic costs, not evaluation of workload management, but it is not surprising that there is inherent resistance on the part of the academy that academic work can or should be driven by metrics (HEA, 2014). In the UK, as in the US, there is a view that workload models and policies are not one-size-fits-all.[28] Moreover, a 2011 study of workload planning at more than 30 institutions indicated that institutions do not take a consistent approach and models vary in design.

Australia:
The University Enterprise Agreements negotiated with academic staff every three years include academic workload agreements to ensure that workloads are aligned with the strategic direction of the institution and are equitable, transparent, manageable, and do not present a risk to health and safety (HEA, 2014). Longitudinal studies in Australia indicate that the average number of hours worked per week when classes are in session increased by approximately 10% — or five hours — between 1977 and 2007 and do reveal a "redistribution of time away from teaching" and an increase in hours spent on research (Coates et al., 2009).

[28] "A good workload model is one that is transparent, fair and based on what actually happens across the institution. It is not a one-size-fits-all thing. A model designed around your institution will work much better than a generic one that doesn't take account of your specific ways of working." (Perks, 2013).

National Workload Studies in the US: Comprehensive, Comparative and Longitudinal

We will begin our exploration with the broadest view: collections of workload data at the national level. Since the late 1980s, *The National Study of Postsecondary Faculty* (NSOPF) conducted by The National Center for Education Statistics (NCES, 2005) has surveyed faculty and collected workload metrics.[29] This publicly available data set provides insights about the makeup of university faculty. It includes demographic information (e.g., in fall 2003, the average age of full-time instructional faculty and staff in all institutions was 50) along with data on hours in the classroom and research activity. Data from the 1988 and 2004 NSOPFs reveals that the average full-time faculty member spent more time working — at 53.3 hours per week — than the average working individual in the US, according to the 2010 *American Time Use Survey* issued by The Bureau of Labour Statistics (Benedict & Benedict, 2014).

*The National Study of Instructional Costs and Productivit*y (known as the Delaware Cost Study) has been asking who teaches what to whom, and what it costs, since 1992. Institutions pay a fee to participate, and receive reports benchmarked against comparator institutions by Carnegie classification. The results are used to articulate overall trends based on aggregate responses, and the project allows for comparative study. For example, on average, across disciplines, nearly two of every three undergraduate student credit hours at research and doctoral universities are taught by tenured and tenure-track faculty. (University of Delaware, 2017) Participating institutions appear to use the Delaware Cost Study as a sort of outsourced institutional research office, publishing their involvement in the study and indicating that the results are used to monitor teaching loads for full-time faculty against comparator institutions.

Currently under way, *The Faculty Workload and Rewards Project* is a three-year analysis of faculty workload distribution in STEM and social sciences throughout the Maryland, North Carolina and Massachusetts State University Systems (University of Maryland, n.d.). Funded by The National Science Foundation, the collaborative study is positioned to look at faculty workload through a lens of equity and alignment.

These broad studies are useful as data repositories and support institutional efforts to contextualize their own reality within a comparative framework, but they have weaknesses. None of these tools is mandatory, nor are they intended to be used as indicators of faculty productivity. Moreover, depending on how one analyzes the data, they can be inaccurate or incomplete. For example, in 2011 in North Carolina critics refuted a claim from the state legislature — based on participation in the aforementioned Delaware Cost Study — that the system-wide average teaching load for UNC faculty was 3.37 courses per semester. Using publicly available data on enrolments and a different methodology they found that teaching loads did not line up with the results of the Delaware Study, and that teaching loads fell short of the prescribed minimum for faculty at baccalaureate universities.

[29] The most recent NSOPF was conducted in 2004 and published in 2005.

Table D1: Efforts to Understand Faculty Workloads in the US

What is it?	What does it measure?
National Study of Postsecondary Faculty Four cycles of the survey have been conducted (1987–88; 1992–93; 1998–2000; 2003–04) by the National Centre for Education Statistics in the US. Covers tens of thousands of faculty and instructional staff at US postsecondary institutions. Includes Institution Survey, Department Chairperson Survey (1988 only) and Faculty Survey.	Gathers information on: Backgrounds, responsibilities, workloads, salaries, benefits, attitudes and future plans of full-time and part-time faculty; Faculty compensation, turnover, recruitment, retention and tenure policies.
The Delaware Cost Study The National Study of Instructional Costs and Productivity is a benchmarking project and data-sharing consortium among four-year colleges; a voluntary survey of upwards of 150 participating institutions annually, each of which receives a report and peer group analysis of national benchmarks by academic discipline.	Who teaches what to whom? What does it cost? Measures include: Direct instructional expense per student credit hour and per FTE student taught; Personnel costs as a percentage of direct instructional expense; Separately budgeted research and service expenditures per FTE tenure and tenure-track faculty.
The Faculty Workload and Rewards Project Partnering with public higher-education institutions in Maryland, North Carolina and Massachusetts to recruit 42 STEM and social science departments for a three-year analysis of faculty workload distribution.	Uses dashboards to monitor balances of teaching, service and research and then works with chairs/faculty to analyze equity in workloads/processes, engage in individual career training and peer support for workload management, and develop/implement new practices to manage workload and ensure greater fairness in distribution.

Faculty Workload Legislation in the US

A 1996 report by the AAUP, published in *Academe*, found that 24 state governments had undertaken faculty workload studies in 1994–95. Critical of the one-size-fits-all approach, the AAUP lamented government "intervention in the inner workings of the academy" (The Politics of Intervention, 1996, p. 46). It also argued there was little evidence "that regulation by the outside community results in 'better' teaching, research, or service" (Euben, 2003, p. 3). Indeed, some US state governments have gotten into the workload game.

Not surprisingly, it is in the context of productivity that many jurisdictions and institutions engage in workload reporting. Localized calls for increased focus on faculty workload can often be traced to periods of budgetary restraint, and tied to a perception that publicly compensated faculty spend too little time actually teaching. In March 2015, a Republican Senator in North Carolina introduced a bill entitled "Improve Professor Quality/UNC System," which would have required that all University of North Carolina faculty members teach four courses per semester or earn less than a full salary on a pro-rated basis for teaching a lighter course load. The authors argued it would reassure students and their parents concerned about undergraduate courses being taught by teaching assistants. The proposed legislation received condemnation from faculty warning that it would be the death knell for research at

North Carolina public institutions and would result in a mass exodus of talented faculty. Within weeks, it was withdrawn from committee.[30]

Ohio presents another instructive example of workload legislation. Since 1993, legislation, which was challenged in court and upheld, requires state universities to establish instructional workload policies and excludes workload from collective bargaining (Euben, 2003). A decade later, the 2013 budget bill included further proposed changes — eventually rejected by the legislature — that would have allowed boards at public institutions to modify workload policy to require all full-time faculty members to teach an additional course in one of the next two academic years (Benedict & Benedict 2014; Straumsheim, 2013). Other states with faculty workload legislation include Florida, Texas, Iowa and North Carolina.

State University System Workload Initiatives

Reporting on faculty workload is more commonly required by mandate of the state higher education authority or a negotiated collective agreement. State university systems, often consisting of a dozen or more independent institutions, generally report to a Board of Regents or Commission that is accountable to the state government. It is at this level that system-wide workload policies and standards are developed — and compliance audits conducted — to report on faculty workload and performance within the context of public funding. These have typically been workload studies of the type discussed in this paper, accounting for the hours faculty spend teaching, conducting research and contributing to service. Highlighted here are some publicly available examples.

In 1996, the State University of New York (SUNY) system published a comparison of its own faculty workload metrics against the NCES and The Delaware Study along with a series of recommendations. The evaluation of workload included measures such as the student/faculty ratio, student contact hours, faculty contact hours, classroom credit hours and class size (State of New York Office of the State Comptroller, 1996). Results of the NSOPF and Delaware studies revealed that the teaching workload of SUNY faculty exceeded that of their peers by 5%, though the student-faculty ratios for some disciplines at some SUNY schools were less than the national average (see Figure D1 for examples). Notably, one of the recommendations of the report was to "encourage campuses to adopt faculty course load requirements and class size standards as part of formal campus planning to achieve desired efficiencies" (State of New York Office of the State Comptroller, 1996).

A follow-up report in 2000 noted the status of the recommendations as partially implemented. It stated that SUNY had required campuses to track student/faculty ratios and trends and was using the measures as a factor in faculty performance evaluations. However, though the administration was collecting and disseminating data related to course load and class size, it had not encouraged campuses to adopt course-load requirements or class-size standards as part of campus planning (King, 2000).

[30] North Carolina General Assembly Senate Bill 593. For reaction, see: Stancill (2015), Bergeron (2015), Leslie (2015), and Wagner (2015).

Table D2: Student to Faculty Ratios at SUNY Schools

Campuses		Peers	SUNY
Faculty Contact Hours	University Centers	6.7	6.7
	Four-Year Colleges	10.6	10.8
Classroom Credit Hours	University Centers	6.2	7.1
	Four-Year Colleges	9.4	9.9
Class Size	University Centers	39.6	33.1
	Four-Year Colleges	30.5	27.3

Source: SUNY Faculty Workload Report 1996

The University of California is another large state university system with a public track record of faculty workload reporting to its state legislature. In response to the California Budget Act of 1992, institutions were required to report on student credit hours per FTE and time-to-degree for undergraduates. The 2007 report notes that students entering in fall 1998 earned their degrees faster than those who entered in fall 1995, and that UC faculty members produced more undergrad degrees per regular-rank faculty member in 2003–04 than those at either public or private comparator institutions (4.4 at UC compared to 1.6 at public and 3.4 at private comparators respectively) (University of California, 2007).[31]

In 2013, The California State University (CSU) system responded to a request for information from the Little Hoover Commission on California State Government Organization and Economy regarding CSU faculty and faculty workload. CSU publicly shared aggregate data that included number of faculty, average number of classes taught each semester, percentage of total classes taught by tenure/tenure-track faculty and average number of credit hours. The report notes that the collective bargaining agreement between the CSU and the California Faculty Association does not specify "minimum" requirements in any of the areas of faculty responsibility (teaching, research, service), but that the workload of an individual faculty member is determined in consultation with his/her appropriate administrator (California State University Office of the Chancellor, 2013). [32]

[31] Where available online, the annual reports to the legislature are interesting. Some were conducted in partnership with The Social and Behavioral Research Institute and were comparative assessments of UC faculty attitudes against other institutions across the country via survey. See CSU Faculty Workload Report (Serpe et al., 2002) and Comparable Faculty Workload Report (Serpe et al., 2003). The SBRI was closed in 2007 due to budget cuts and the need for physical space on campus.

[32] The Milton Marks "Little Hoover" Commission on California State Government Organization and Economy, created in 1962, is a bipartisan, independent state oversight agency intended to investigate state operations and promote efficiency, economy and improved service.

The Higher Education Research Institute (HERI) at UCLA has monitored faculty trends in undergraduate teaching since the late 1970s. Its now web-based survey focuses on how faculty spend their time, how they interact with students, preferred methods of teaching, perceptions of the institutional climate, professional goals, etc. (Hurtado, Eagan, Pryor, Whang, & Tran, 2012). There are other examples of institutional efforts to publish workload information. UC San Diego has an institutional research website that includes data on instruction and a workload report, based on student credit hours, by department.[33] Nevada's System of Higher Education requires and publishes biennial Faculty Workload Reports, but they include only instructional workload, with no reference to either research or service.[34]

In states with this type of higher-education governance (such as in Maryland or Texas), there are sometimes publicly accessible compliance audits in addition to workload studies. These audit reports point to differing levels of commitment when it comes to implementation of workload policy at individual institutions, and sometimes include recommendations related to increasing teaching loads to achieve efficiencies and save public money (see Kansas). As demonstrated, there are examples of large public systems willing to share faculty workload data, but analysis of this data remains largely an "in-house" operation.[35]

Institutional Faculty Workload Policies

A Google search on faculty workload related to almost any major state university or private institution in the US — or Canada — will yield institutional policies, guidelines, contracts and reporting tools that typically include references to annual performance monitoring and average course loads. Most institutional workload policies focus on credit hours as the key unit of measurement, specifying a minimum or maximum of teaching hours per semester. A teaching load of three courses per semester is fairly typical, with variations between institutions focused on research or teaching. In virtually every case, institutional policies or collective agreements provide for internal discretion and decision making regarding the workload of individual faculty. It is typical to permit a range in workload among the three key areas of teaching, research and service between departments (even within departments) based on academic priorities and the research commitments of various faculty.

Institutional workload policies apply to faculty and academic staff, articulating workload expectations that are consistent with the institutional mission. They include references to annual reviews and express the three-pronged responsibility of faculty (teaching, scholarship, service). In some cases, these policies reference components of instructional effort beyond time in the classroom, such as preparation, delivery and evaluation, and student advising. Many specify a normal teaching load and indicate that not only is the dean/department head responsible for allocating teaching load, but that it is expected to shift over the course of a faculty member's career. These policies protect academic staff and are intended to shape a culture of equity, fairness and transparency within academe. They also protect the public's investment in higher education. Though the policies stipulate transparency within the academic

[33] UC San Diego 2014-15 Instructional Workload Summary

[34] Nevada's faculty workload reports are published every two years and posted publicly back to 2004 on the Nevada System of Higher Education website.

[35] In addition to SUNY and UC, another interesting example is Southern Oregon University, which has posted a Faculty Workload Analysis Summary Report.

department, no such commitment to share information or data related to faculty workload extends outside it. Despite the seemingly ubiquitous faculty workload policy, in practice, it seems that few institutions or jurisdictions are doing consistent monitoring of faculty workload with public outputs.

The University of Texas Case: Faculty Workload, Productivity and Monitoring

The University of Texas system provides an interesting — and possibly unique — case study of the relationship between government, institutions, faculty and the public around faculty workload and productivity, and serves as an illustrative peek behind the curtain. As noted earlier in this paper, institutions in the University of Texas System are required by the state Education Code to have workload policies and to report annually to the legislature. In May 2011, within the context of fiscal restraint urged by the state legislature, the University of Texas System released a collection of faculty workload data in response to a public information request from a state board of regents' task force on productivity and excellence.[36] The release included faculty data from academic year 2009–10, presented with a caveat indicating that the data was not yet verified.[37] The spreadsheet included name, rank, department, tenure status, percentage appointment loads for teaching, research and administrative service along with salary information, research funding, course enrolments and limited student satisfaction scores. It was a treasure trove of data beyond what is normally included in typical workload studies and, not surprisingly, it got a lot of attention.

Despite the caveat and assertions from the UT System that the data should not be used to produce productivity or revenue generation analyses, faculty were concerned that the release suggested an incomplete and possibly inaccurate picture of their contribution to the institution.[38] Within weeks, analyses critical of the productivity of UT faculty were published, with particular focus paid to the flagship campus at Austin.[39] Labeled premature, the studies nevertheless received public attention in mainstream media reports.[40] Academic administrators at UT Austin argued that while the data was a partial assessment of workload, it contained limited indicators of productivity. Evaluation of the data through this lens suggested that UT Austin faculty were providing a good return on investment to the state (Musick, 2011). Public discourse related to faculty workload is largely focused on productivity, efficiency and the cost of faculty on the one hand with concerns about integrity of the academy and the incomplete nature of workload measures on the other.

The UT Austin case provides useful insight when it comes to monitoring, as well. A November 2015 audit of compliance with *Regents' Rule 31006: Academic Workload Requirements* revealed that institutions were not tracking performance in a number of areas. The report referred to a lack of annual reporting to the board and no formal monitoring by the UT System Office of Academic Affairs (as was intended). In

[36] The board of regents consists of nine members appointed by the governor and approved by the senate to six-year terms, as well as a chancellor who oversees the administration of the system. University presidents/CEOs report to the chancellor and the board of regents. The Task Force on Productivity and Excellence was struck in the wake of a proposed Framework for Advancing Excellence in the UT System.
[37] "The data in its current draft form is incomplete and has not yet been fully verified or cross referenced. In its present raw form it cannot yield accurate analysis, interpretations or conclusions." (University of Texas System, 2011). When the data was re-released after a clean-up exercise the following month, there were additional explanatory notes for clarity, but few changes.
[38] Earlier that spring, the Texas A&M system released a "red and black report," so-called because it indicated in red faculty members who did not generate enough revenue to cover their compensation costs.
[39] See O'Donnell (2011) and Vedder, Matgouranis, & Robe (2011).
[40] See also O'Donnell (2011) and Vedder et al. (2011).

addition, there were concerns about faculty privacy and the dearth of good processes, as well as lack of clarity and inconsistency in implementation. Thus, despite legislative and public pressure — which led to the release of detailed faculty workload data — and the existence of processes dedicated to compliance, in practice, the level of formal monitoring of academic workload varied by institution and there was no system-wide guidance to strengthen transparency and accountability related to academic workload at the institutions (University of Texas System, 2015). The results of the audit suggest a lack of serious attention to workload measurement, monitoring or reporting even after the public analysis and debate prompted by the release of the data in May 2011.

The Texas example demonstrates how the concepts of workload and productivity are often conflated and that measuring workload is a complicated business impacted heavily by the culture of academe. Even in a state with a history of public discourse related to faculty workload through the lens of productivity, the actual policy and logistical framework for managing workload remains at the level of academic department, largely autonomous.

Are We Focusing on the Right Measures?

After decades of focus on faculty workload, and examples such as North Carolina or Ohio where state governments have legislated faculty workload requirements, there has been little change in general practice. Why?

One possibility relates to the perceived legitimacy of the workload data. Workload studies include student contact hours, course enrolments and number of courses taught, but even when these studies are combined with research funding and outputs, they are routinely critiqued as not only incomplete but misleading and not indicative of productivity or value for money. A second possibility for the lack of change in practices around workload measurement and monitoring, or the shape of the faculty workweek could be the lack of easily comparable outputs from these exercises. As this paper indicates, searching for data on faculty workload will result in a scattershot of reports and policies, but many are devoid of broader context and are neither consistent nor comparable. Finally, a third possible reason for the lack of progress on isolating this indicator in a useful format is the fact that determining how to effectively measure faculty workload and productivity is very difficult, a fact clearly demonstrated by the examples provided herein. Despite the bluster and hand wringing, faculty workload and productivity often get placed into the “too hard to measure basket.”

What do workload studies measure, really? As revealed by the examples presented in this paper, traditional workload studies are essentially an accounting of how faculty allocate their work week to professional responsibilities. When the definition of workload activities are held consistent over time, studies that report on activity can be useful, revealing long-term trends and providing context for decisions on everything from pedagogy to workplace health and safety. It seems, however, despite decades of work in this area, there is no methodological silver bullet that satisfies all parties. As long as there have been workload studies, there have been faculty groups arguing that they are not adequate to define faculty effort.

Surely it is essential to understand why the effort involved in doing good workload analysis is worthwhile. Is the goal to inform institutional planning? (One hopes so.) To contribute to evidence-

based negotiation of terms and conditions of employment? (Certainly). To demonstrate value for money? (Given that many of these studies have come to life through the prodding of government, this seems obvious). Viewed through these lenses, one can argue that faculty workload studies have had little impact. If the goal is to increase the number of hours faculty spend in the classroom, there are studies that suggest things have gone in the opposite direction. A 2010–11 survey of undergraduate teaching faculty conducted by HERI indicates a significant decline in the amount of time faculty spent teaching and preparing for teaching.[41] Overall, we have a handle on how to measure, if imperfectly, components of workload; the problem is when workload becomes synonymous with productivity.

How does one measure faculty productivity? If we consider it a measure of value for money, weighing faculty compensation against hours of work and external research awards could be considered a version of this. The value for money argument is not a natural or straightforward one in the case of knowledge workers like university or college faculty where the job is about not just about teaching to the syllabus, but fostering knowledge. A faculty member could teach four courses a semester and be ineffective during every student contact hour, or publish a swath of articles that do not advance knowledge in his or her discipline. Similarly, research funds are awarded with no guarantee of an outcome that can be commercialized. Workload is important, but it alone is not a representative measure of faculty productivity. Neither is a straight value-for-money analysis.

Perhaps there is a way to think about workload and productivity through an impact lens that speaks to outputs. The number of hours spent in the classroom, supervising students, conducting research, running a lab or working on institutional committees are important, but not the only factors to consider. Surely it is imperative that we begin to think more broadly about the outcomes of faculty productivity and try to understand its impact on students, on institutions, on academic disciplines and on society. Measures of student satisfaction, learning outcomes, impact of research or creative work on the growth of knowledge in a particular discipline, retention and graduation rates, innovation in pedagogy, and graduate outcomes in the areas of employment and further study are all exciting platforms from which to consider the impact of faculty productivity. How much time one spends at one's metaphorical desk does not necessarily correlate with productive, creative outputs.

Conclusion

The allocation, monitoring and reporting of faculty workload at universities remains — essentially — departmental business. When public policy experts, legislators or even faculty themselves raise the issues of workload, productivity or accountability, the discussion invariably devolves into concerns about threats to academic freedom and autonomy of the professoriate — sacred tenets of academia. Faculty, even in publicly funded institutions, have not traditionally had overt accountability requirements placed on them by government, so it stands to reason there is concern about meddling from the funder. Perhaps this historic and cultural component of the academy explains why, despite decades of dialogue on faculty workload and productivity, there has been little progress.

[41] The proportion of faculty who report dedicating more than nine hours per week to teaching was 43.6% in 2010–11, a decline from 56.5 ten years earlier (Hurtado et al., 2012).

At the end of the day, all of the reporting described here still measures inputs. Counting teaching hours is the easy part; it is essential that we begin to think more broadly about impact. We can infer understanding about the quality of postsecondary education from measures such as student/faculty ratios and class size, and this is useful, but these measures do not adequately reflect the impact of our excellent, involved, productive faculty.

How can we measure faculty productivity through impact on students? None of the international higher-education systems seem to have cracked this nut, either. As Ontario's postsecondary sector asks big questions about sustainability, efficiency, productivity and differentiation, we may well have an opportunity to lead in this area.

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Table D2: Sample Faculty Workload Legislation in the US

Florida *K-20 Education Code* 1012.945 Required number of classroom teaching hours for university faculty members	(2) "Each full-time equivalent teaching faculty member at a university who is paid wholly from state funds shall teach a minimum of 12 classroom contact hours per week at such university."
Texas *Texas Education Code* Section 51.402 The University of Texas System Regents' Rule 31006: *Academic Workload Requirements*	"The Coordinating Board, Texas College and University System…. shall develop and recommend general policies and standard reports for academic faculty workloads and services."
Ohio *Revised Code* Section 3345.45 Standards for instructional workloads for faculty – faculty workload policy	"… the chancellor of higher education jointly with all state universities, as defined in section 3345.011 of the Revised Code, shall develop standards for instructional workloads for full-time and part-time faculty in keeping with the universities' missions and with special emphasis on the undergraduate learning experience. The standards shall contain clear guidelines for institutions to determine a range of acceptable undergraduate teaching by faculty." "… the policies adopted under this section are not appropriate subjects for collective bargaining. Notwithstanding division (A) of section 4117.10 of the Revised Code, any policy adopted under this section by a board of trustees prevails over any conflicting provisions of any collective bargaining agreement between an employee's organization and that board of trustees."
Iowa – proposed Senate File 64 "An Act relating to the teaching effectiveness and employment of professors employed by institutions of higher learning under the control of the state board of regents" (Introduced January 2015, referred to committee, not passed)	"Require that any professor employed by an institution of higher learning under the control of the board teach at least one course offered for academic credit per semester." "Each institution of higher learning under the board's control shall develop, and administer at the end of each semester, an evaluation mechanism by which each student enrolled in the institution shall assess the teaching effectiveness of each professor who is providing instruction to the student each semester." "If a professor fails to attain a minimum threshold of performance based on the student evaluations used to assess the professor's teaching effectiveness, in accordance with the criteria and rating system adopted by the board, the institution shall terminate the professor's employment regardless of tenure status or contract. (2) The names of the five professors who rank lowest on their institution's evaluation for the semester, but who scored above the minimum threshold of performance, shall be published on the institution's internet site and the student body shall be offered an opportunity to vote on the question of whether any of the five professors will be retained as employees of the institution. The employment of the professor receiving the fewest votes approving retention shall be terminated by the institution regardless of tenure status or contract."

North Carolina – proposed "Improve Professor Quality/UNC System" General Assembly Senate Bill 593 (Referred to committee, not passed)	"The Board of Governors shall adopt a policy applicable to all the constituent institutions that requires all professors teach a minimum of eight classes per academic year. The salary of any professor who teaches less than the required number of classes shall be reduced on a pro rata basis…"