Understanding the Queen's Faculty Salary Model – history, components, and Canadian comparators.

(September 2014)

Faculty salary models in large, research-intensive Canadian universities are complex remuneration schemes. This special bulletin is an attempt to clarify both the Queen's salary model and to provide an overview of how the Queen's model compares with salary models in other large Canadian universities. The bulletin is presented in three sections: a brief history of salary models at Queen's, including the original justifications for the specific elements of the models; an explanation of how the current model works, including several examples of faculty career trajectories; and a comparison of 10 stripped-down salary models used in other Canadian Universities with the Queen's model.

The History of the Queen's Faculty Salary Model

The current Progress-Through-the-Ranks (PTR) and Merit model has its origins in the 'Report of the Task Force on Faculty Compensation' issued in 1983 (full report can be found here). At that time, faculty expressed the wish to have remuneration follow a salary model that had a scale (across-the-board) element, a career development (progress-through-the-ranks) and merit element, a discretionary element for market adjustments and retention, and some way of adjusting inequities in salary. The distribution to individual faculty of all these elements, with the exception of scale, would be determined by Heads, Deans and the Principal. Annual scale increases (distributed "across the board" and so in percentage terms are the same for each faculty member) were intended to offset the erosion of one's existing salary by inflation. Faculty said that the average increment provided by career development and merit combined should be related to the annual increment required to take a faculty member from the current average salary at age 30 to the current average salary at age 65 or roughly 2.6 times the Assistant Professor Floor. Further, faculty agreed that salary should increase most rapidly at the beginning of a faculty member's career and that the average rate of increase should decrease once the faculty member's salary was on the higher side of the general salary structure. Underlying this recommendation was the understanding that increases to base pay early on in a career are more valuable over one's entire career than the same dollars later on. In contrast, faculty recommended that merit payments remain a fixed dollars amount regardless of career stage on the basis that equal merit deserves equal dollars. Finally, the model was, in theory, to be self-funding; money freed up by retirements was to fund new hires.

In 1987, increases to the value of career development and merit increments as a percentage of the Assistant Professor Floor increased the ratio of final salary to Floor to over 3.0x despite simultaneous increases to value of the abatements. At the time, the faster increase in salary followed by a flattened salary curve at the end of someone's career was seen to mesh well with the Queen's hybrid pension, in which the early dollars in the Pension Plan provide a larger "money purchase" pension. This was one of the major justifications given by the 1986 Task Force for this "shape" of career salary curve.

There was another discussion paper issued by a Task Force in 1990 and, although that Task Force foresaw many of the current difficulties with the salary model, the model remained unchanged from that of the 1986 model (the 1990 Discussion Paper may be found here). The 1990 Task Force focussed on the impacts of demographic factors, the costs of PTR, salary compression, and mandatory retirement. In a nutshell, the Task Force highlighted the increasing seniority of faculty, increasing starting salaries and the resulting salary compression, and the elimination of mandatory retirement (at the time theoretical) as having a severe negative impact on the self-funding ability of the model. The Task Force also highlighted base government grants failing to keep up with inflation as an external pressure on financing the salary model.

The Current Queen's Salary Model

The entire Queen's salary model is actually made up of five elements: scale increases (also known as across-the-board or economic increases); merit (pay for performance); career development increments (salary steps); pension; and benefits. I will focus on the first three of these elements in this paper, but pension — as deferred income with a value partially determined by the level and time-sequencing of income — must remain as a background consideration when evaluating the salary model.

Scale increases to salary are meant to prevent the erosion of the value of salary by inflation. Scale at Queen's has at times fallen behind inflation and run ahead of it at others. More recently, we have been in a prolonged period of low inflation with scale increases mostly exceeding or matching inflation for university faculty while real wages in many other sectors are stagnating.

Faculty members and management have both seen higher-than-inflation scale increases as a method of increasing compensation relative to other comparator institutions in order to attract new faculty. However, the total salary mass cost of running ahead of inflation is significant when calculated as additional compounded lifetime earnings.

Merit is a pay differential to reflect performance above what is, on average, "expected" performance. At Queen's merit pay is tied in with career development increments, explained below, so that "expected" performance will equate to the normal career development increment of 10 (worth \$3,039) or no merit. Performance below expectations can result in the loss of career development points. Merit points at Queen's are worth \$303.86 per point for 2014-15 and 0, 2, 5 or 10 points can be awarded. Opinion surveys before the last two rounds of bargaining yield very similar results: one third of faculty want to abolish merit; one third wish to keep merit as is; one third want to enrich the merit scheme. QUFA has been hearing that the annual assessment and awarding of merit processes are time-consuming and that academic research takes longer periods to come to fruition. Biennial assessments and merit awards have been suggested. Merit schemes with structures different from the annual, award-into-base salary model at Queen's are common. The frequency of merit awards varies, as does whether the payment is a one-time payment or goes into base salary. Awards that do not go into base salary truly have equal value for equal performance, whereas the Queen's system only has equal dollar value in the year of award but the salary increase caused by a merit award early in a career compounds over the course of the career.

Career Development Increments (10 points in our model) are the actual salary model. Outside of the university sector, career development is usually accomplished by a salary grid with a number of steps from the job start rate to the final job rate. Indeed, a salary grid system is used in many universities in the Maritimes and in smaller Canadian universities. Academic staff at the Royal Military College are on a set of grids negotiated with Treasury Board that begin with UT-1 earning \$38,531 (plus one time lump sum payment) in 2013 to UT-4 Step 19 earning \$140,885 (plus one time lump sum payment). Salary models without some form of upper limit on steps are not common, even in the university sector. Mirroring the practice of salary increases for promotion in other sectors, university models that tie some increase in salary to rank promotion are common.

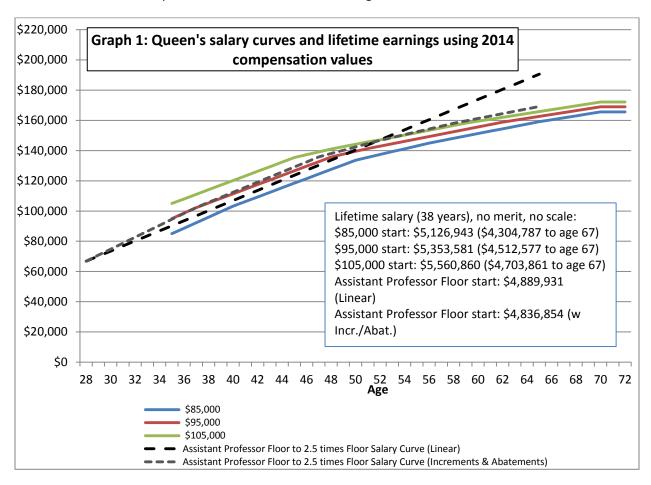
Queen's has neither an upper limit, nor any rank premium built in to the salary model. What our model does share with other university models is the modification of a linear progression of salary into a total salary curve that gives a greater rate of increase early on in a career when salary is low and then flattens out to some degree. The original justifications stated by the 1983 Task Force on Faculty Compensation for this career salary trajectory were that: considerable progress was assumed to be made early on in one's career and that should be rewarded; it created a curve more like those outside the university sector; and, it was desirable to move faculty's very low starting salaries up rapidly.

The assumption that academic salaries are relatively low at the beginning of a career is key to the proper functioning of our current salary model. When the model was put in place in 1984, the average earning of females working full-time, full-year was \$35,900 and for males it was \$56,000 in 2011 constant dollars. The assumed upper end of starting salaries for Queen's faculty in 2011 constant dollars was \$59,359 (\$30,000 in 1984 dollars). By 2011, the average earning of females working full-time, full-year was \$50,500 and for males in was \$68,100 (Statistics Canada, 2014. CANSIM). The average Starting Assistant Professor salary at Queen's for 2010-2011 was \$104,607. The widening ratio over time of academic start salaries to Canadian average earnings while the key values in the model remained static means that new Assistant Professors receive few, if any, steps at the highest rate (at the rate of the Junior Increment before the first breakpoint in the model). In the higher paid disciplines, faculty may start at a salary above a breakpoint (so that they are already subject to two or more breakpoints through Senior Abatements).

Of course, later starts for new Assistant Professors could moderate the total career earnings impact of higher starting salaries (the actual average age of new hires over this last contract was about 36, compared to the assumed starting age of 28 for the current version of the salary model). However, the elimination of mandatory retirement which permits faculty to extend their highest earning years, adds to the salary mass cost because the model has no salary cap.

Eliminating inflation, scale and merit from the equation, an individual's starting salary has some impact on total earnings, but length of service has a greater impact (Graph 1). The gap between a linear rise in salary and the actual curve of the salary model (the two gaps or areas between the two dashed lines before and after they cross at about age 52) are the amounts of earnings shifted from late career to early career. The shift is not great enough to make up for the effect of flattening of the salary curve (there is a big gap right at the end of the career curves) before the effect of early money into the

pension is taken into account. As the 1990 Discussion paper makes clear, any shift in lifetime earnings to early career increases early pension contributions. Without the assumption that early money will be earning a return – in the Pension Plan or elsewhere – the current salary model is no more beneficial than a linear model that provides the same life time earnings.



Salary Models at other Canadian Universities

While the Queen's salary model may appear to be unique in diminishing career development increments to more highly paid faculty members through Senior Abatements, this is actually the norm among nongrid Canadian salary models. To make this clear, I have produced a chart (Appendix A) that uses the same terminology for all models; all salary levels at which years-of-employment salary increases change are called "breakpoints" and all values of career development changes are called salary increments. All other components of salary (performance-based pay, scale, one-time payments, etc.) have been stripped off these models to leave, where possible, only salary increments at adequate performance.

All the universities in the chart decrease salary increments at some point in faculty members' careers. Alberta and Calgary have salary ranges by rank and pay Assistant Professors (the probationary period) a lower increment than Associate Professors. Increments still decrease with increasing salary within rank.

UBC does not tie salary breakpoints to salary but to years of employment. Universities in Central Canada tend to have salary models more similar to that at Queen's. The number of breakpoints at which the value of a salary increment decreases vary in number from one breakpoint at the University of Toronto, to seventeen breakpoints for the University of Ottawa. Alberta, UBC, Carleton, and Toronto have rank or upper limit salary ceilings beyond which salary increments are not applied. Waterloo and Western have systems that cannot be disentangled from merit assessment (although both have separate discretionary merit funds as well). In all cases, there are mechanisms for withholding some portion of a salary increment if a faculty member's performance is below that expected. The mechanism of withholding part of the salary increment for performance below that expected is the only performance-linked salary model element at the University of Ottawa. The lack of merit at Ottawa goes some way in explaining the relatively high value of salary increments there.

Waterloo and Western have complicated systems that work rather more like a merit system (although they have separate systems to determine merit and its value in salary). At Waterloo, the pool of salary increment money is determined by the number of faculty within salary breakpoint ranges and as an arbitrary lump sum amount at Western. The value of a single increment is determined by a faculty member's performance relative to their colleagues and the value declines at salary breakpoints.

The salary model at Queen's is, then, not so different from models at other large Canadian Universities. In the 2011 negotiations the Queens's administration proposed suspending the salary model - Career Development Increments, Merit and scale – temporarily to save money. QUFA rejected this move on the ground that it was unprincipled, would produce substantial inequity and inflict on some faculty. This paper is offered for the purpose of clarifying the goals and assumptions that shaped the current model and the contexts of its current operation, so that any future conversations about salary model can proceed on a principled basis.

APPENDIX A - Breakpoints in Canadian university salary models, merit component removed	n university salary	models, merit component	emoved where p	where possible (2013-14, unless otherwise noted)	therwise noted)					
(Rank maxima bolded if stipulated) (Indexed Floors italicised)										
Alberta (2014-15)	Rank Floor	Base Salary Increment	t Breakpoint 1	Salary Increment	Breakpoint 2	Salary Increment				
Assistant Professor	₹.	\$75,403 \$2	\$2,452 \$10	\$104,827 0						
Associate Professor	<u>.</u>	\$93,944 \$3,144 (n=12)	\$13	\$131,672 0	\$143.837	7 \$2.452	-			
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British Columbia			Year 1	Years 2-5	Years 6-7	Year 8	Years 9-15	16 years +		
Assistant Professor	n/a	\$1	.684 BSI x2	BSI X1.5	BSI x1.0	BSI x0.5		0		
Associate Professor	n/a	\$1	684 BSI x1.5	BSI X1.5	BSI x1.0	BSI x0.5		0		
Professor	n/a	\$1	\$1,684 BSI x1.0	BSI x1.0	BSI x1.0	BSI x1.0	BSI x1.0	0		
, aculco			t +aioa/cord							
Calgary	•		פֿע	Salary micrement						
Assistant Professor (max. \$106,121)	л. v	\$72,000 \$85,000		\$117 566 \$1 200						
Professor	\$11\$		\$2,700	\$143,576 \$2,000						
Carleton	Assistant Prof Floor	oor Base Salary Increment	t Breakpoint 1	Salary Increment	Breakpoint 2	Salary Increment	Breakpoint 3	Salary Increment	Breakpoint 4	Salary Increment
	35	110	20	0,000			\$0			
McGill										
	\$	\$65,000 Information not available	able							
McMaster										
	·ss.	\$71,082 \$3	\$3,872 \$12	\$129,788 \$2,904	\$158,470) \$1,936	9			
-										
Queen's	4									4
	χ. 	\$65,218 \$3	53,557	\$97,827 \$2,964	\$130,436	51,838	8 \$142,293	,293 \$1,541	\$154,151	\$1,245
Toronto*										
(Assistant Prof max. \$94,500)	35	\$56,600 \$3	\$3,655 \$14	\$148,450 \$2,245						
Waterloo (2014-2015)**	ł			000	20.40					
Wortors **	À	5/4,4/6	55,043	\$150,490	161,0815					
	n/a	(\$400,000/# of faculty)		\$107,582	\$130,916	.0				
York										
	₹\$	\$55,000 \$2700 (2012 -2015) (plus 1 incr. upon promotion to Assoc., plus 2 increments upon promotion to Professor)	plus 1 incr. upon p	romotion to Assoc., plus	2 increments upon	promotion to Prof	ssor)			
Ottawa - hired after 04/2006			Breakpoin	Salary Increment	Breakpoint 2	Salary Increment	Breakpoint 3	Salary Increment	Breakpoint 4	Salary Increment
(Assistant Prof max \$99,845,	;\$	\$72,191 \$4	\$4,392	,521			10	\$80,105 \$4,007	\$81,397	\$3,877
Associate Prof max. \$138,482,			Breakpoint 5	Salary Incre	Breakpoil	Salary Incre	Breakpoi	Salary Incre	Breakpoint 8	Salary Increment
Professor max. \$167,156)			3\$,270		2 \$3,747		,654 \$3,618	\$105,945	\$3,487
			Breakpoint 9	Salary Incre	Breakpoir	Salary Increment	Breakpoint 11	Salary Increment	Breakpoint 12	Salary Increment
			\$10	\$107,238 \$3,361		9 \$3,230	0 \$116,281	,281 \$3,101		\$2,971
			Breakpoint 13	Salary Incre	Breakpoir	Salary Incre	Breakpoint 15	Salary Incre	Breakpoint 16	Salary Increment
			\$11	998	\$120,159	9 \$2,714	4 \$121,450	,450 \$2,584	\$129,202	\$2,455
			Breakpoint 17	Salary Incre						
			\$13	\$130,496 \$2,326						
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^{*} From 2012 through 2014, U of T's breakpoint value increases but the dollar value of the increment per FTE declines year over year.

under breakpoint 1, then "R" - the 0 to 2.0 annual performance rating - equals actual R, if salary is \$154,090 to \$186,090, then "R" is actual R minus 0.75; if salary is \$186,191 or higher, then "R" is actual R minus 1.25. ** Salary increment pool calculated by Faculty as 0.25 of an increment for each member, 0.25 for each member below break point 1, 0.5 for each member under breakpoint 2.

^{***} Western's Career Trajectory Fund was started in 2012-13 and had a total value in each of 2012-13 and 2013-14 of \$400,000. The salary increment value is this amount divided by number of Probationary, Tenured and and account and higher. This same weighting is used in is used to weight distribution to individual faculty.

The example given by Western using 2012-13 values was for a faculty member with a base salary of \$105,800 who would have received \$348 in salary increment.

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