



PART 1 - The Framework

**Costing Collective Bargaining Proposals:
A manual for Canadian academic staff associations**



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Costing collective bargaining proposals: a manual for Canadian academic staff associations

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Part 1: A Framework for Costing Bargaining Proposals

Quick Reference – Part 1 Summary

This manual presents a **comprehensive framework** for modelling compensation structures and costing collective bargaining proposals. The manual is designed to provide support on specific areas of costing, such as negotiating benefits or workload. However, the full value of the framework is built on the principles of providing a comprehensive, agile, and systematic tool for academic staff unions to estimate costs independently from the administration's estimates.

While most bargaining tends to focus on proposals related to specific benefits, arbitrators consider **total compensation** when making comparisons and issues awards. For academic staff, total compensation includes base salary and all other benefits provided by the university or college as remuneration for work performed.

Estimating the projected costs from changes in compensation requires **assumptions** about institutional **operations** and the composition of the bargaining unit. Operational considerations reflect the number of academic staff required to run the university or college. The costing model is based on the assumption that recent operational experiences are the best predictor for operational needs in the near future.

The costing model brings together information about the structure of compensation and assumptions about operations to create a **Base Year Model**. This summary provides a profile of compensation at both the individual and institutional levels. The Base Year Model serves as a benchmark for costing one-time and ongoing changes to compensation.

Basic Features of Costing Framework

Taking the time to develop a Base Year Model⁴ as part of preparations for negotiations improves the collective bargaining process. Negotiating teams will have a more efficient and accurate decision-making tool to use in the highly dynamic negotiations environment. The union's bargaining team can assess the costs of proposals and counter-proposals quickly and accurately.

The creation of a Base Year Model will allow the union to test the impacts of various scenarios before negotiations begin. While the procedures for establishing a bargaining mandate are distinct from costing, the systematic creation and use of a comprehensive costing tool will allow negotiators to make more informed decisions regarding trade-offs and bargaining outcomes.

While the negotiations team may not include the person who actually develops the costing model, that person should be closely engaged with the team throughout the bargaining process. In particular, clear communication regarding the underlying assumptions of the costing model is essential to the effective use of this tool.

The costing model presented in this manual strives to balance complexity with agility. Some academic staff associations may have the capacity to maintain detailed databases of individual bargaining unit members with a built-in salary structure that accounts for complex career progression and merit-based salary enhancements. Such complex databases can provide more accurate estimates of salary costs than models based on weighted average salaries. However, including other elements of compensation in order to have a comprehensive model of total compensation costs are difficult to create and maintain in an employee database. The manual presents an agile costing model using templates that provide accurate and transparent methods, defensible at the bargaining table and before arbitrators.

The costing framework is built on several key principles. First, the framework takes a comprehensive approach to model total compensation. Second, the costs are expressed through standardized units of measure allowing more transparent strategic decision-making and incorporation of equity considerations. Third, the framework balances

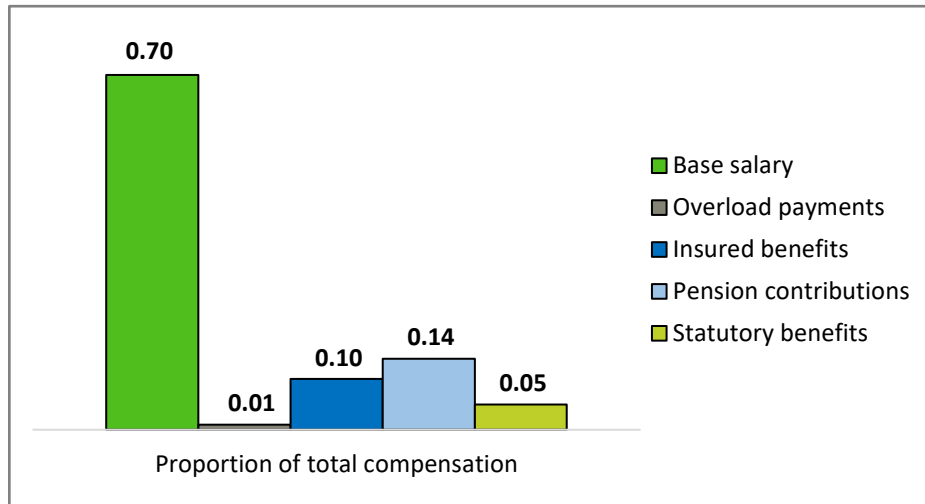
4. The Base Year Model is a summary of all the components of compensation reflected in Step 12 of the costing template. The Base year Model provides a standardized expression of cost for each category of compensation. The Base Year Model is built on a set of underlying assumptions which reflect recent operational experiences and the composition of the bargaining unit.

complexity with the agility to use the Base Year Model during dynamic negotiation sessions. Finally, the step-by-step costing template provides a systematic method for considering all aspects of compensation and how operational assumptions impact compensation costs.

Total Compensation of Academic Staff

While bargaining strategies often focus on only a handful of key elements of compensation in each round of collective agreement negotiations, costing methods should include all elements in order to model total compensation for bargaining units employees. Total compensation includes everything an employer spends on employees in remuneration for their work. Total compensation includes base salaries, special payments, and benefits as shown in **Figure 1**.

Figure 1: Example of total compensation breakdown



Costing total compensation, and not just comparing salary levels or individual benefits, has become an essential feature of briefs submitted to interest arbitration. Arbitrators have articulated the principal of total compensation in a number of key decisions.

I have always thought it essential not to look at any such item in isolation. With rare exceptions any such proposed improvement looks plausible on its face. The Union can point to some number of bargaining relationships where this point has already been conceded. It may even be true that, taken one by one, no single revision will actually cost that much. But, cumulatively, these changes can mount up substantially. Thus, sophisticated parties in free collective bargaining look upon their settlement as a total compensation package, in which all of the improvements are costed out and fitted within the global percentage increase which is deemed to be fair to the employees and sound for their employer that year.⁵

Likewise, Arbitrator Teplitsky described the importance of total compensation even when arbitrators discuss proposals on an issue-by-issue basis.

Although I am proceeding on an issue by issue basis, I have kept in mind the principle that it is the cost of the total compensation package which is relevant. An arbitrator must recognize the monetary implications of all proposals.

As well, I agree with Mr. Houck that an arbitrator should be alert to prevent a party from selective utilization of comparables. In other words, it is not reasonable to "shop" a group of comparables to ascertain the best features of the total compensation package of each. A party's relevant position qua others cannot be determined by reference to any particular item in the compensation package, even salary. Rather, it depends on how the total compensation packages compares.⁶

5. 65 Participating Hospitals and CUPE, Re 1981 CarswellOnt 3551.

6. Teplitsky, Martin, *The Windsor Police Association and the Board of Commissioners of Police for the City of Windsor*, 1981.

Characteristics of Compensation

All elements of compensation are divided into three basic categories:

Base salary – This represents the nominal salary of academic staff.

Salary-related benefits – This includes any form of compensation in which the costs are directly associated to base salary. A common example would be pension contributions or life insurance premiums.

Non salary-related benefits – This category includes any element of compensation for which the costs are independent from the base salary. For example, dental benefits often vary depending on whether coverage is individual or family, but do not vary by individual salary levels.

Elements of Total Compensation

Base salary

Base salary refers to the nominal earnings an academic staff member receives for their “regular” or “normal” workload. This costing manual uses two common units of measure for earnings in the sector: 1) the annual salary, or 2) the course stipend for contract academic staff. In other sectors, costing methods typically drill down to the base hourly wage.

Premiums & overload pay

Premium pay, such as administrative stipends and overload payments for additional teaching or service duties, should be included in the Base Year Model under this category of compensation. It is important to note whether such payments are based on salary (thus a salary-related benefit), or provide a flat rate enhancement regardless of salary (non-salary related benefit). Merit pay and other forms of variable pay, whether they are added to the base or given as a one-time lump sum, should be included as part of the category of premium pay earnings.

Special consideration is needed for whether to include ‘soft-money’ forms of compensation in the Base Year Model. Many institutions allow faculty to enhance base salaries from research grants or other soft-money flowed through the university or college. To avoid assumptions based on unpredictable soft-money operations, the sources of additional compensation dependent on self-generated research grants or contracts will not be included in the costing model.

Insured benefits

Academic staff unions negotiate a wide range of benefits such as supplemental medical, dental, life, and disability insurance plans. These benefits can be costly to provide and employers have increasingly sought to have employees ‘co-pay’ the benefit premiums.

Pension benefits

Estimating the long-term liabilities of defined benefit pension requires sophisticated actuarial modelling and goes well beyond the methods presented in this manual. However, the contribution rates for pensions and other deferred earnings programs can be calculated as one component of the annual cost of total compensation.

Statutory benefits

Employers are required by law to pay a variety of payroll taxes and health related premiums that are levied to support specific government programs and benefits. These include benefits such as the Canada Pension Plan (CPP), the Employer Health Tax (EHT), Employment Insurance (EI), and Workers’ Compensation. Employers typically include these benefits in their compensation models as they may represent as much as 8 – 10 per cent of academic staff total compensation. Unions often do not include statutory benefits in costing models for collective bargaining because these are not negotiated terms and conditions of employment.

The current costing model includes statutory benefits for two reasons. First, while statutory benefits are not negotiated, they can significantly contribute to the roll-up costs of across the board salary increases. To account for these ‘hidden’ costs, statutory benefits are included in the model. Second, statutory benefits are a fixed structure of compensation. The Base Year Model includes statutory benefits to be comprehensive and capture the structure of total compensation. Employers will include costs associated with statutory benefits, including roll-up costs and changes in statutory benefits such as the phased-in enhancements for CPP, so the union should be in a position to independently assess those estimates.

Annual payments & allowances

Annual payments and allowances may include a range of benefits such as tuition and childcare subsidies. However, many expenses are incurred by academic staff in the normal conduct of their work. Travel to academic conferences,

the purchase of lab equipment and similar expenses are reimbursed to employees because they are a normal part of “operating costs.” Membership in scholarly associations, travel to academic conferences, the purchase of equipment for research, and other forms of allowable expenses do not reflect remuneration.⁷ Generally, operational expenses should not be included in compensation models. An easy rule is that if the benefit is not taxable, it is not a component of compensation.

Including professional expenses as an element of compensation reflects the art of costing. In a strict sense, professional expenses do not constitute compensation; rather they are an operational expense to enhance the scholarly environment at the university or college. However, many academic staff unions prioritize the strategic importance of professional expense allowances and other enhancements to the scholarly environment. In bargaining, the administration often treats proposals to enhance professional expense allowances as compensation proposals and the union should include these benefits in the model. When professional expenses are provided on an individual or per capita basis, changes to the composition of the bargaining unit or the number of staff entitled to professional expenses, will have important cost implications.

Similarly, other types of payments to employees are allowances that are meant to defray costs that employees may incur in the normal course of their employment – but the level of the allowance is subject to negotiations. Whether or not these allowances are considered a part of employee compensation or a taxable benefit, the union should estimate the cost of negotiated changes to these allowances.

Operational Assumptions & Costing Projections

On the one hand, estimating the cost impacts of collective bargaining proposals involves the simple calculation of the value of the compensation enhancements to the members of the bargaining unit. However, these future projections of estimated costs are built on a web of assumptions regarding the operations of the academic institution and future composition of the bargaining unit. Costing is not just concerned with changes to individual compensation, but must account for global changes to the entire salary and benefit mass of the bargaining unit. An important feature of effective costing practices requires the identification and explicit articulation of these operational assumptions.

Operational Models for Canadian Universities & Colleges

In simple terms, the operational assumptions embedded in the Base Year Model for costing reflect how many academic staff are required to run the institution. Contemporary universities and colleges are complex networks of research institutes, teaching programs, and bi-cameral administrative structures. The basic question that any operational model needs to address is “how many units of academic labour does it take to run the institution?”

The challenge for costing models in the postsecondary sector is to define that basic unit of measure for academic work. In many employment settings, the hourly rate serves as the basic unit for measuring the costs of labour inputs. However, hourly rates are generally not salient to most university settings. In order to model compensation cost structures for academic staff, including faculty with a full range of research and service responsibilities, the basic unit of measure tends to be the tangible and predictable core of the institution’s teaching functions.

Other important aspects of academic labour, such as research or service work, are an assumed component of the operational model. However, changes in these functions are difficult to model in a way that ties this work directly to compensation structures or the composition of the bargaining unit. In contrast, changes in teaching workloads and practices have a clear and direct impact on the academic salary mass and structure of compensation.

The primary variables needed to model postsecondary operations include the number and composition of staff in the bargaining unit, the number of courses or academic credits delivered, and the methods of delivery or work processes. The key assumption underlying the operational model, and ultimately the Base Year Model for compensation structures, is that the number of courses offered in the past year, and the associated composition of the bargaining unit, will be the same for the coming years in the short term.

While the necessary focus on teaching workloads is a limitation in costing models, this does not limit the union’s ability to defend and promote the importance of research and service. For example, the union should track information

7. The Canada Revenue Agency provides an extensive guide for employers on taxable benefits and allowances - <https://www.canada.ca/en/revenue-agency/services/forms-publications/publications/t4130/employers-guide-taxable-benefits-allowances.html>

about the annual value of research grants and contract work. Similarly, the bargaining team should make sure they have access to various measures of academic productivity, such as publications and other forms of knowledge mobilization. However, this manual discourages building these measures into the Base Year Model as they may introduce productivity expectations ill-suited to most programs of research. Workload measures for teaching has a predictable level of expected productivity that does not apply to most research and service activities.

Collecting Information about Operations

As the union team identifies the components of compensation and prepares to collect information about the costs associated with each component (see Part 2 of this manual), it is important to collect information about current operations. The information needed for an employee database about the composition of the bargaining unit (see page 23) will include individual level data about operations. The union should also collect information about operations at the university or college level. The following data about teaching programs should be included in the union's request for information (see Step 2 in costing template).

1. Total number of courses offered for academic credit⁸ during the previous academic year.
2. Total number of courses delivered by members of the bargaining unit during the previous academic year.
3. Total number of bargaining unit members by faculty/department and appointment type.
4. Normal teaching loads by faculty/department and appointment type.

One important challenge to modelling university and college operations is the growing diversity of programs and delivery methods. For example, some institutions are diversifying their revenue streams by offering more non-academic credit or professional development programs. While such practices have been common in business schools for decades, the growth of activity-based budget models has expanded pressures for more revenue generating activities across the institution. Unless base compensation costs of bargaining unit members are dependent upon such revenue streams, including these activities in the model of operations and assumptions for the Base Year Model may be problematic.

Basic information about postsecondary operations will help the union answer the basic question, what teaching load reflects an average full-time equivalent (FTE) appointment? Instructors holding a teaching-only appointment may teach eight (8) term length courses in order to achieve a 100 per cent FTE status. In contrast, tenure and tenure stream faculty may have teaching loads of 2-2 or 2-1. For this reason, creating distinct Base Year Models for each appointment type would provide a more accurate framework for compensation cost structures.

Accounting for Workload Diversity & Employment 'Churn.'

There tends to be some variation in the teaching workloads across individual faculty members at most Canadian universities and colleges. Faculty appointed as Canada Research Chairs or those utilizing course buyouts from research grants may have reduced teaching responsibilities compared to other colleagues. There may be variation across departments for what is considered a 'normal' teaching load. With these operational assumptions built into the Base Year Model, the costing procedure assumes that the diversity of individual level teaching may continue to fluctuate, but that the institution-level total mass of teaching activities, and the number of instructors needed to deliver them, will remain relatively constant.

Likewise, these costing methods assume that employment churn is a relatively consistent part of normal operations. Employment churn refers to the normal entry (new hires) and exits (retirements and separations) of academic staff. Teaching loads and compensation tends to vary along the career trajectories of most academic staff and the entries and exits of bargaining unit members create churn in the composition of the bargaining unit. However, unless there are clear demographic bulges or exogenous shocks (such as large departmental closures), the churn reflects random noise, not affecting the Base Year Model and underlying assumptions regarding the composition of the bargaining unit and operations of the institution.

The Base Year Model accounts for these variations through the basic operational assumption that the most recent experiences in operations are adequate predictors for the workforce needs for the near future. In other words, variations in teaching loads in the past year will likely be repeated in the near future. Therefore, the composition of the bargaining unit and the

8. The manual references "academic credit" here to distinguish academic courses from workshops and other professional development activities that may not be a regular part of the teaching workload. Non-credit programs may be a regular feature of academic workloads in some faculties and schools. In these cases, the union should make an explicit decision about whether to include these programs in the operational assumptions.

workforce needed to deliver academic programs will have the same basic profile. As a result, the Base Year Model's compensation structure and total base costs can be used as a model to predict costs in the near future.

Base Year Model

The Base Year Model (see *Figure 2*) provides a summary of the total compensation structure of the bargaining unit. The costs are expressed in standardized formats to identify the average cost of each compensation category by FTE and the average cost per course by FTE.

Figure 2: Step 12 - Summary base year model

	Total annual costs	Average annual costs per FTE	Average course (credit) cost per FTE	% of base salaries	% of payroll
Base salary					
Base salary costs					
Premium pay					
Total salary-related costs					
Total non salary-related costs					
Insured benefits					
Total salary-related costs					
Total non salary-related costs					
Statutory benefits					
Total salary-related costs					
Total non salary-related costs					
Pension contributions					
Total salary-related costs					
Total non salary-related costs					
Payment & allowance costs					
Total salary-related costs					
Total non salary-related costs					
Other benefit costs					
Total salary-related costs					
Total non salary-related costs					
Post-employment benefit costs					
Total salary-related costs					
Total non salary-related costs					
TOTAL BASE SALARY COSTS					
Total salary-related costs					
Total non salary-related costs					
TOTAL BASE YEAR COSTS					

The Base Year Model summarizes each category of compensation in a way that retains the distinction of salary-related compensation costs. The template calculates salary-related costs as a percentage of base salaries in order to calculate the roll-up factor. For a detailed description of the roll-up factor, see the module on “Cost Impacts of Salary-Related Benefits” on page 32.

The Base Year Model represents a detailed profile of the institution's compensation costs for bargaining unit members, based on the operational assumptions adopted as part of its creation. The steps in the costing template provide a systematic process for collecting information and calculating costs to build the Base Year Model.