COSTING COLLECTIVE BARGAINING PROPOSALS

A manual for Canadian academic staff associations

CAUT
Canadian Association of
University Teachers

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Executive Summary

This manual and the associated templates, present 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 associations to estimate costs independently from the administration's estimates.

Many unions have traditionally viewed costing collective bargaining proposals as a concern reserved for management. However, changes in the bargaining environment and strategic challenges facing academic staff associations in the university and college sector have made the capacity to cost proposals an essential skill for unions. For academic staff associations and unions, costing bargaining proposals is an essential tool for targeting priorities and ensuring equity. This guide is designed to provide faculty associations and unions representing academic staff a practical, step-by-step approach for calculating cost estimates associated with collective bargaining proposals.

Part 1 presents the framework for costing used in the manual and introduces key terms and concepts. While most bargaining tends to focus on proposals related to specific benefits, arbitrators consider **total compensation** when making comparisons and issuing 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 **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.

Part 2 walks through the step-by-step process to **identify all the elements of compensation** and to collect information about the associated costs and composition of the bargaining unit. The first step in the costing process is to identify and to note all components of compensation.

1. Identify every potential source of compensation in the collective agreement.
2. Indicate whether each benefit is 'salary-related.'
3. Make notes about the specific information needed to calculate total annual costs for each component of compensation.

Step 1 in the costing template provides a systematic tool to review the collective agreement and identify all components of compensation. Step 2 in the template turns the notes about compensation into an official **information request** to management. The association has a right to information about compensation and the bargaining unit in accordance with the legal principle of good faith bargaining.

The growing variance in academic appointment types makes information about the **composition of the bargaining unit** critically important. The bargaining unit database (Step 3) creates a summary of basic information (Step 4) that serves as a foundation for the Base Year Model.

Part 2 includes a special module on **negotiating benefits**. Most collective agreements specify the insured benefits but information about costs usually has to be obtained from the benefits carrier through the employer. Costing benefits requires breaking a group benefits package into its component parts and gathering information about the premiums associated with each category of benefit. Union-oriented benefit consultants can provide important independent information about trends in benefits, but premium costs are typically based on the experience of claims specific to the bargaining unit.

Part 3 reviews the step-by-step process to calculate costs for each category of compensation and build the Base Year Model. Part 3 also reviews the calculations and special considerations for each category of compensation. There are **four key calculations** to express cost:

1. Total annual cost for the entire bargaining unit;
2. Average annual cost per full-time equivalent (FTE) for each component of compensation;
3. Average cost per course per FTE, (this serves as the most basic unit of measure for estimating compensation costs); and
4. The percent of base salary for salary-related benefits, (this provides the roll-up factor for each component of compensation.

The **roll-up factor** provides a measure of the cost increases triggered automatically by an increase in the base salary. Because of the salary-related benefits, a 1% base salary increase results in a higher cost impact. For example, if the compensation structure has a roll-up factor of 0.3, (salary-related benefit costs are proportionally 30% of total base salary costs, a $1,000 base salary increase will actually cost $1,300. This manual and the templates provide a systematic way to calculate roll-up costs.

The template automatically calculates the roll-up factor in the Base Year Model. The summary provided in the Base Year Model also provides the union leadership with insights about the compensation structure and the underlying university or college operations. Such information is critical during negotiations, but union leaders will also find detailed information about total compensation a valuable resource for a broad range of representational and advocacy activities.

Part 4 reviews how to use the Base Year Model as a benchmark for costing specific proposals during negotiations. There are two important methods for reporting costs:

1. **Cash flow** reports the 'new money' needed to pay for the changes in a year or over the term of the collective agreement. Cash flow is reported as a total dollar amount.
2. **End rate** reports the ongoing, structural changes to compensation. End rate is reported as a percentage increase to total compensation.

When costing multi-year proposals, it is important to account for the **compounding** effects of ongoing changes to compensation.

There are several special modules in Part 4 which review the following topics:

1. Costing changes to employee rights.
2. Costing faculty complement.
3. Costing changes to paid and unpaid leaves.

In some cases, changes will not increase individual compensation, but the **changes impact the underlying assumption**s about the composition of the bargaining unit. If it takes more academic staff to deliver courses, such changes may have a significant impact on the overall salary mass of the bargaining unit.

In other cases, strengthening employee rights does not result in any direct cost increase but may constrain management rights to unilaterally direct the operations of the university or college. In general, employers will vigorously resist the erosion of management rights, even if there are no direct or immediate costs associated with the change. There are **limitations to the role of costing** and in these cases, **bargaining power** will determine the outcome.

Costing is a tool to help to counter the possible inflation of Employer's costings of bargaining proposals; determine which and how many bargaining unit members will benefit from a proposal; prioritize proposals for the bargaining team; and assist in the development of an overall bargaining strategy.

Success at the bargaining table however is determined by the strength of the support of the membership and the ability to leverage the union's bargaining power.

This manual presents a comprehensive approach to costing compensation. However, even a little bit of costing preparation will support more effective bargaining strategies. To get the most out of this manual, collecting information about the bargaining unit, operations, and compensation should be a regular, ongoing activity of the association.

Introduction

This guide is designed to provide academic staff associations and unions with a practical, step-by-step approach for calculating cost estimates associated with collective-bargaining proposals. The changing bargaining environment for unions in general and in the university and college sector in particular, has forced unions to be more strategic. Government interventions into bargaining procedures and legislated directives for interest arbitrations has further pressured unions to provide economic rationales for bargaining proposals and the costs associated with them.

The manual has three primary objectives. First, this manual is designed to support the strategic capacity of academic staff unions to bargain in increasingly hostile environments. The guide's systemic approach, provides a mechanism for identifying and assessing all components of compensation. The step-by-step procedures for calculating compensation costs as part of preparations for collective bargaining enhances the capacity for informed responses to administrative proposals. Second, by using a standardized method for calculating and expressing compensation costs, this manual provides academic staff associations with tools for establishing bargaining priorities in an equitable manner. Finally, one of the key objectives of the manual is to develop consistent and compelling positions in the case that contract disputes must be submitted to interest arbitration.

The manual can be used as a set of stand alone modules, focused on specific components of compensation, such as costing health benefits, clarifying the operational and cost impacts of enhanced paid leaves, or working with complex career development salary models. In addition to these special topic modules, the manual provides background and context for the importance of building costing competencies among academic staff associations in the current bargaining environment. These foundational concepts are important because costing collective bargaining proposals is both a science, using mathematical formulas to predict cost impacts, and an art, crafting and articulating operational assumptions about the labour cost structures of universities and the composition of bargaining units.

Background & Context for Costing Collective-Bargaining Proposals

A recent CAUT survey found significant variance in the incidence of costing practices across academic staff associations. In some associations, the small size of the bargaining unit facilitated individual-level estimates in the cost of proposed compensation changes. In other associations, academic staff with expertise in mathematics or accounting applied those skills to support bargaining practices in their faculty association. Overall, the survey results supported the development of a costing manual designed specifically for the university and college sector.[1]

Why Should Unions Cost Bargaining Proposals (Isn't that Management's Problem)?

While the processes and techniques of costing compensation may be the same for employers and unions, the motivations and objectives are very different. Unions have historically viewed the costs associated with bargaining proposals as a "problem for management to figure out." Employers are responsible for the financial management of the enterprise and often use the argument of cost as the reason for rejecting proposals. The objectives of costing from the administration's framework are focused on financial management and budgetary controls; but such objectives are not the only motivation or reason to cost proposals and changes to compensation.

For academic staff associations, costing bargaining proposals is an essential tool for targeting priorities and ensuring equity. Knowing the cost of changes to compensation does not make a union more susceptible to an employer's concessionary demand. However, lacking tools to assess and counter employer claims regarding the cost impacts of proposals leave unions significantly disadvantaged in the current political environment. Refusing to cost proposals on the grounds that such concerns belong solely with management undermines the ability of the leadership of the association to maximize value in bargaining priorities, to operate strategically in hostile bargaining environments, and to ensure equity in bargaining outcomes.

Academic staff associations should be clear about the reasons and objectives for costing bargaining proposals. Investing the time and resources into costing serves several key strategic objectives for academic staff unions. First, costing and basic financial literacy skills are essential for managing bargaining priorities and ensuring equity across employee groups. Protecting the value of academic labour and advocating for fair terms and conditions of employment

1. This manual is an adaptation of a more generic manual for costing collective bargaining proposals. Hickey, Robert, Richard P. Chaykowski, and Brendan Sweeney. *Costing Collective Agreement Proposals: An Instructional Guide,* School of Policy Studies, Queen's University, 2013.

requires knowing the monetary value of total compensation. Costing practices do not assume an underlying acceptance of managerial responsibility for institutional operations. Rather, knowing the cost of the bargaining demand is about maximizing the value of academic labour and ensuring equity.

Second, the bargaining environment has significantly changed for unions in general and academic staff associations in particular. Changes in the managerial orientation and administrative practices at universities and colleges have resulted in greater cost sensitivity and more distributive bargaining practices by administrations. In particular, the rise of "activity-based budgets" has led to a much greater focus on costs by administrators.

> *Activity-Based Budgeting (ABB) is driven by the overarching principle that revenue centres within an enterprise should be made primarily responsible for all the direct and indirect expenses they incur. In the case of universities, revenue centres (faculties and schools) are treated like "profit centres" in private sector businesses; they manage the revenue they generate and control their own costs while also covering their share of the costs incurred in the delivery of shared university services. ABB originated in the private corporate world in the 1970s and 1980s and the ABB literature is replete with "corporate speak" – revenue maximization, cost reduction, entrepreneurial incentives, efficiency, increased productivity, etc. In part, the vigorous debates over the desirability of introducing ABB in universities stem from the cultural clash between management concepts and values and academic concepts and values.*[2]

The growth of managerialism in administrative practices has coincided with increasing public-policy pressures, especially mandates for net zero changes to compensation and rollbacks in public funding support for the postsecondary sector. In a bargaining environment increasingly dominated by cost considerations, academic staff unions need independent access to and analysis of compensation data. Such independent expertise on the part of academic staff unions is especially important if bargaining disputes are referred to interest arbitration for resolution.

Identifying appropriate comparators is a common and important point of leverage to justify bargaining demands. The use of 'orbits of coercive comparison' has historically played a significant role in collective bargaining and wage settlements.[3]

Finally, the costing model presented in this manual provides tools for advancing equity across the academic workforce. For example, clarity on the equity implications of the differential impact of percentage based versus dollar-based increases to base salaries provides the bargaining team with better data for informed decision-making. Likewise, the costing model provides the bargaining team with objective tools for comparing the value of different proposals and their impact on a diverse bargaining unit.

Limitations of Costing

Despite the strategic advantages to costing, there are important limitations. First, costing is a tool to support the leadership team in making bargaining decisions. However, costing does not replace the important, and often difficult political decisions that the bargaining team will need to make during the course of negotiations.

Second, costing projections inherently involve estimates based on operational assumptions, but changes in the economic or political environment may significantly impact the operations of the institution. The costing methods described in this manual can provide accurate estimates of compensation costs, but changes from new technologies or government policies require that the union leadership and bargaining team members possess more than technical skills.

Third, and perhaps the most important limitation in the use of costing is that collective bargaining is not simply a rational decision-making exercise. Bargaining outcomes are often driven by power relations and political considerations, despite, or even in contrast to economically rational decisions. Costing is distinct from and provides no substitute for the importance of association bargaining power. University and college administrations, like any employer, will vigorously defend managerial authority and management rights to run the operation. Proposals which do not impose costs, but do erode management rights, will face stiff opposition at the bargaining table.

2. Holmes, John, *Queen's University New Budget Model: A Report Prepared for Queen's University Faculty Association*, Queen's University Faculty Association, 2017. p. 14.
3. Ross, Arthur Max. *Trade Union Wage Policy*, Univ of California Press, 1950.

Organization of Costing Guide & Templates

This manual is designed to be used with the companion Excel-based templates to support preparation for bargaining and data-informed decision-making throughout the collective bargaining process. Part 1 begins by presenting the overall framework for the costing model and introduces key terms used in costing. In Part 2, the manual presents a systematic approach to identifying all of the elements of compensation and collecting information about total compensation costs. Part 3 takes the information collected about compensation, calculates costs in consistent formats, and creates a Base Year Model. Part 4 shows how the Base Year Model supports cost calculations in dynamic bargaining environments. Part 5 presents a fictional case, the Great Northern University, to demonstrate the application of the costing methods reviewed in the manual.

The manual includes modules on topics for special consideration:

- Costing academic salary models
- Union right to information
- Costing benefits
- Cost impacts of salary-related benefits (roll-up costs)
- Bargaining costs associated with faculty complement
- Costing considerations when negotiating workload provisions
- Negotiating paid and unpaid leaves
- Costing employee rights (e.g. job security)
- Costing new appointment types
- Key costing concepts and terms

The Excel-based templates include 14 individual spreadsheets, which align with the steps outlined in the costing manual.

- Step 1: Appointment types and compensation profiles
- Step 2: Information request template letter
- Step 3: Bargaining unit database
- Step 4: Summary of basic information
- Step 5: Premium and overload pay
- Step 6: Insured benefits
- Step 7: Statutory benefits
- Step 8: Pension contributions
- Step 9: Annual payments and allowance
- Step 10: Other benefits
- Step 11: Post-employment benefits
- Step 12: Summary base year model
- Step 13: Impact of collective agreement
- Step 14: Summary of changes

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 Model[4] 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

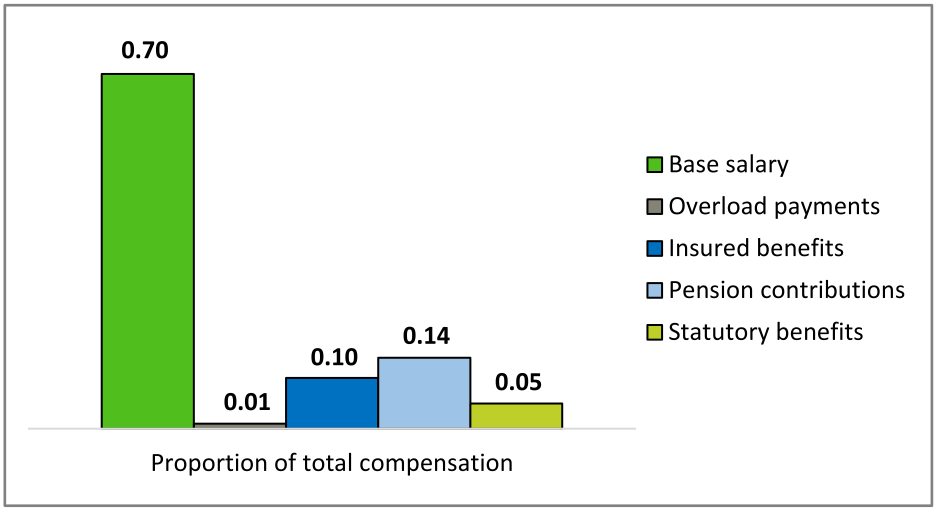
4. The Base Year Model is a summary of all the components of compensation reflected in Step 12 of the costing template. The Base year Model provides a standardized expression of cost for each category of compensation. The Base Year Model is built on a set of underlying assumptions which reflect recent 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 credit[8] 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.

Part 2: Identifying Elements of Compensation & Collecting Information about Costs

Quick Reference – Part 2 Summary

Part 2 walks through the step-by-step process to identify all the elements of compensation and to collect information about the associated costs and composition of the bargaining unit. The first step in the costing process is to identify and to note all components of compensation.

1. Identify every potential source of compensation in the collective agreement.
2. Indicate whether each benefit is 'salary-related.'
3. Make notes about the specific information needed to calculate total annual costs for each component of compensation.

Step 1 in the costing template provides a systematic tool to review the collective agreement and identify all components of compensation. Step 2 in the template turns the notes about compensation into an official **information request** to management. The union has right to information about compensation and the bargaining unit in accordance with the legal principle of good faith bargaining. A sample information request letter is included as Appendix B.

The growing variance in academic appointment types makes information about the **composition of the bargaining unit** critically important. Distinct compensation structures across appointment types, such as tenure stream and contract academic staff, will typically require separate Base Year Models. The bargaining unit database (Step 3) creates a summary of basic information (Step 4) that serves as a foundation for the Base Year Model.

Part 2 includes a special module on **negotiating benefits**. Most collective agreements specify the insured benefits but information about costs usually has to be obtained from the benefits carrier through the employer. Costing benefits requires breaking a group benefits package into its component parts and gathering information about the premiums associated with each category of benefit. Union-oriented benefit consultants can provide important independent information about trends in benefits, but premium costs are typically based on the experience of claims specific to the bargaining unit.

In simple terms, the information needed to calculate compensation costs include:

1. Salaries and benefits; and
2. Composition of employees in the bargaining unit.[9]

Identifying all the Components of Total Compensation

While the collective agreement will be the primary source for identifying the various components of compensation, the costing process will require access to additional sources of information. Start with the collective agreement, but do not limit the search to that single document. Review the institution's human resources website, employee manuals and other sources for information about compensation. Use the list of categories in Step 1 of the template as a guide to systematically search for all potential sources of compensation.

1. Identify each element of compensation in its most basic form. (e.g. create a separate entry line for every element of compensation, distinguishing dental benefits from drug benefits and other insured benefits).
2. Take detailed notes about each component of compensation.
   a. Is the compensation described in the collective agreement? (If so, where, if not, where did you find information describing it?).
3. Start by confirming whether this item is compensation and if so, what type of compensation does this item represent? (e.g. base salary, insured benefit, overload payment, etc.).

9. Corry, D.J. *Collective Bargaining and Agreement*, Canada Law Book, 1997.

4. Is this benefit salary-related? (Does this benefit increase if the base salary increases?).[10]
5. What information is needed to calculate total annual cost of this benefit?
   a. Do we need information related to the composition of the bargaining unit?
   b. Do we need information about the operation of the university or college to calculate total annual cost for this component of compensation? (For example, how many academic staff were paid for overload teaching in the last academic year?)
6. Do we have an independent source of information to calculate the total annual cost?
   a. If not, what specific data request do we need to make to the administration to obtain the information required to calculate total annual costs?

Base Salary Information

While it is important to note salary floors and base stipends established by the collective agreement, it is necessary to collect the experience data of the actual base salaries of members of the bargaining unit. Likewise, the costing team should note the basic salary model, appointment types, and features of merit pay if those increases are added to base salaries. (Merit pay paid as a one-time lump sum bonus does not become part of base salary and is therefore treated differently).

Wage-related?	Component of compensation	Source	Information & notes
	Base salaries		Salary floors, course stipends, reduced appointments
	Salary step grid / Salary model		Grid structure, career development breakpoints
	Classifications		Full-service tenure stream, teaching stream, continuing appointments, contract academic staff, librarians and archivists.
	Merit pay		Monetary value of merit pool, is merit added to base or provided as lump sum?

In some situations, it might be important to distinguish base or nominal salary from salary paid as this may be higher or lower than the base salary figure. Academic staff on reduced responsibility may retain their nominal salary for certain benefits, such as pension and life insurance, but receive a reduced salary pro-rated to match their reduced workload. Generally, using the weighted average salary by FTE status will account for pro-rated benefits in the bargaining unit. However, the Base Year Model may not be able to account for all such situations.

Workloads & Premiums

Salary-related?	Component of compensation	Source	Information & notes
	Regular teaching load by appointment type		
	Regular FTE formula for contract academic staff		
	Overload premium(s)		Often provided as a flat-rate stipend, and therefore not a salary-related benefit.
	Administrative stipend(s)		Is this treated as part of the base salary for ATB, or separate, flat-rate benefit?
	Other premiums		

The total salary paid to an academic employee may include certain premia, such as overload pay for teaching extra courses or an administrative stipend. The costing team should note every potential source for premia provided under the collective agreement. These notes will serve as the basis for segments of the information request (Step 2) on the number

10. At some institutions, the parties have traditionally agreed that across-the-board (ATB) increases apply to a variety of benefits. Despite the consistent application of ATBs to these benefits, technically, the application of ATB increases to these benefits is the result of a negotiated outcome, not a feature of the structure of compensation. Therefore, these benefits are still not considered 'salary-related.'

of bargaining unit members receiving the premium payments and the total amount paid under those provisions in the most recent academic year.

Many collective agreements may not include specific information regarding workload, and even if such terms are included, the assumptions in the Base Year Model should reflect the actual experience data of how may courses academic staff taught, on average, in the last academic year. The costing team will have to collect the experience data through the information request letter.

Insured Benefits

Many collective agreements will identify specific classes of benefits provided to employees. Some contracts simply refer to the group benefit plan detailed in the Human Resource department. In any case, the costing team needs to identify every insured benefit category, often reflected in the sample list provided in the template.

Salary-related?	Component of compensation	Source	Information & notes
	Extended medical		Are there distinct benefit classes under supplemental medical such as semi-private hospital?
	Dental		
	Vision		
Typically yes	Life insurance		Life insurance is often a salary-related type of benefit.
Typically yes	Long-term disability		Employee paid or employer paid premiums?
	Prescription drug		Note any co-pays or annual benefit caps.
	Other		

While the bargaining team will focus on the benefits provided by the collective agreement, the objective for costing is to gather information about the premiums paid to obtain the benefits. The two most important tasks at this stage is to identify every type of benefit provided to academic staff and note which benefits are salary-related. The information request will seek premium information for each class of benefit. The bargaining team will need to track premiums paid by members through co-payments and benefit caps, but the costing model focuses solely on the premiums paid by the employer.

Special Module on Negotiating Benefits

While most collective agreements specify the type or level of insured benefits members of the bargaining unit are entitled to, costing is based on the premiums paid to obtain those benefits. While the union negotiating team should take member paid premiums into account for the overall bargaining strategy, the Base Year Model includes only employer paid premia.

Benefit Providers

Most universities and colleges contract with a benefits provider (e.g. Canada Life Assurance Company – formerly Great West Life, Green Shield, Manulife, Sun Life, etc.) to administer group benefits for employees. Benefit packages negotiated between the institution and academic staff unions often form part of a larger group benefits package. Based on the types of benefits included in the package, and the demographics and past claims data from the employee group, the university or college negotiates a contract with a benefits provider. Given the importance and complexity of designing and contracting group insurance plans, it is common for employers to use an insurance broker or consultant to help with the plan design and contracting with providers.

There are other models for the provision of benefits such as self-funded plans, multi-employer group plans, and union administered benefit plans. Regardless of the specific model used to provide insured benefits, the costing framework is the same — total compensation includes the costs associated with the provision of non-statutory benefits. These costs are part of total compensation whether or not the employee submits claims under the benefit program.

The employer may offer benefits that have not been negotiated into the collective agreement. A common example of this would be Employee Assistance Programs (EAPs). These programs often provide a variety of counseling, health, and wellness services. The costs associated with EAPs typically do not constitute a significant portion of total compensation. The union's costing team should strategically decide whether to include EAP benefits in the Base Year Model. On the one hand, inclusion of unilaterally provided benefits support a more comprehensive model of compensation. On the other hand, terms that are not negotiated or result from collective bargaining proposals may not be included in union costing models to reinforce the union's message that such items are not considered valuable components of employee compensation.

Benefit Cost Structures

When identifying the components of compensation, the costing model should create a separate line for each insured benefit category. For example, most benefit carriers will have specific premiums associated with dental, paraprofessional services, drug benefits, LTD, etc. The information request letter should seek the most detailed information about premiums available. Obtaining information about new benefits or cost projections for current benefits may be more difficult as the employer will likely have to go to their benefits consultant or carrier for those estimates.

The premium costs for benefits are shaped by two primary factors: 1) prices for the products or service, and 2) the experience of usage data from the benefit claims. Cost structures can also be shaped by whether employees have individual or family coverage. Carriers also typically have reciprocity arrangements for coverage provided by family members with other sources of insured coverage.

While not directly accounted for in the costing model, knowing the usage or experience data for insured benefits is very valuable information for the bargaining committee when assessing costs and benefit priorities. Experience data can provide union leaders with important information to assess the importance and value of individual elements of insured benefits. During the information-gathering phase, the union should also note eligibility requirements or prorating arrangements for contract academic staff and others without a full-time equivalent appointment.

The following steps outline a systematic procedure for identifying benefits, collecting information, and calculating costs.

1. Identify every type of insured benefit to which members of the bargaining unit are entitled under the collective agreement.
    a. Note whether the benefit is salary-related.
    b. Note the eligibility requirements for each type of benefit.
    c. Significantly different benefit entitlements across appointment types may justify distinct Base Year Models for each appointment type.
2. Isolate the information needed and the source of information for the cost of premiums for each benefit.
    a. In most cases, the collective agreement establishes the level of benefit, but the cost of the premium has to be obtained from the administration.
3. Write a detailed information request to the employer for data about the cost and usage of insured benefits.
    a. The goal of the information request is to obtain the total annual cost for every insured benefit provided as part of the total compensation package. To ensure that the costing model includes the most up-to-date premiums, the letter should request the monthly premium costs for each benefit type as of the last day of the expiring collective agreement.[11]
4. Calculate the total annual cost for each benefit type.
    a. When calculating the total annual cost for each benefit, be sure to limit attribution of those costs only to eligible employees in the bargaining unit.
    b. In Base Year Models that include a mix of both eligible and non-eligible employees, the expression of benefit costs on an FTE and a per course per FTE, spread the average cost across the entire bargaining unit. This allows the bargaining team to compare the values of a particular benefit, especially if eligibility and access vary.[12]

Requesting Information about Benefit Costs

While there are significant privacy concerns surrounding information about benefit claims and the health status of employees, providing the information needed for costing benefits is a legitimate obligation for good faith bargaining by the employer. Potential denials based on privacy concerns makes it more important that the union information request be detailed and specific as possible.

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11. Universities typically hold annual contracts with insurance carriers to provide the specified benefits at fixed premiums for the year. Renewal of these contracts may result in changes to the costs of the premiums. Therefore, the information request letter should not ask for the premium payments over the previous twelve month reference period as they may include different premium rates depending on the date of renewal. Premium costs as of the last day of the expiring collective agreement provide the best benchmark for the Base Year Model.
12. Benefits available to only a portion of the bargaining unit will have a lower weighted average value to the entire bargaining unit compared to benefits available to all employees. By standardizing the unit of cost expression, the Base Year Model provides equity-based comparisons.

1. Monthly premium costs for (e.g. dental benefits) provided by the collective agreement as of (the last day of the current collective agreement).
    a. If the premium varies by family or single coverage, request the premium rates for each category and the enrollment data for bargaining unit members. (What percentage of the bargaining unit is signed up for family coverage and what portion is enrolled for single coverage? Use the weighted average of the enrollment figures to calculate the total annual costs.)
    b. If the collective agreement requires co-payment of the benefit premiums, the union might request both total payments and premiums broken down by employer and employee portions.
2. While not directly relevant for costing and calculating the Base Year Model, the information request letter should also establish a record of asking the employer if they plan or are aware of any changes in the benefit carrier or group benefits plan.

Unions can enhance their access to information about benefits, including costs and usage, by negotiating disclosure and joint review procedures in the collective agreement. The following terms were negotiated by the Queen's University Faculty Association to ensure, regular, detailed information about the financial performance and usage of the group benefit plan:

> *The Parties agree to establish a Joint Benefits Committee to advise the Parties on the operations of all benefits plans (except the Pension Plan). The Parties shall each appoint three (3) individuals to the Joint Benefits Committee. The Committee shall meet periodically at the request of either Party and at least once per year. The Mandate of the Committee shall be:*
>
> *(a) To receive financial reports from the University and insurance carrier(s) showing the claims made, expenses incurred, and reserves for each benefit plan;*
> *(b) To provide input to the University on considerations for plan changes that may be desired;*
> *(c) To advise the Parties on any decision to publicly tender the plans;*
> *(d) To advise the Parties on the need to retain consultants or outside advisors; and*
> *(e) To advise the Parties on any improvements or additions to the plans and the costs of such improvements or additions.*

Maintenance of Benefits

A common and important point of contention and difference in costing practices by administrations and academic staff associations concerns costs associated with the maintenance of established benefit levels. This reflects the important difference between benefits provided and the costs associated with purchasing those benefits. For example, the union may not propose any changes to the benefit plan over the life of the agreement, but the cost of those benefits may increase significantly. From the academic staff association perspective, the union has not tabled proposals to enhance the benefits and therefore there are no costs associated with collective bargaining. Those cost increases are important budgetary considerations for the institution, but have no more relevance than other inflationary cost pressures for the general operations of the institution.

Health Care Spending Accounts

Insured benefit carriers offer an increasing range of products and services beyond the standard group benefit plans. These include a variety of plans that offer more flexibility through a menu-type selection option. Health care benefit accounts offer another form of flexible spending for individual employees. For employers responsible for maintaining benefit levels, health care spending accounts provide greater cost certainty since the employer is committing to provide a set amount of money each year, not a level of benefit subject to inflationary cost pressures. Individual employees may find the new products like health care spending accounts an attractive alternative to group benefits they may not currently use. Costing benefits and analyzing the experience data from benefit claims can provide the union negotiating team with an important tool for assessing the value of benefits for the bargaining unit. Generally, the cost of pooled insured benefits will provide employees with greater collective value, especially if the medium term maintenance of benefits are included in the analysis.

Union Consultants & Benefit Brokers

In some jurisdictions, provincial academic staff union federations retain benefit consultants to advise local associations about costs and trends in benefit coverage. These supports can be an extremely valuable independent source of information about cost trends and other developments in the benefits industry. However, one important limitation is that costing information has to be obtained from the provider through the employer given the unique variation in experience data and associated premiums for each institution.

Special Considerations for Specific Benefits

Drug benefits

Benefit plans vary widely in their provision of drug benefits, and therefore premium costs will also vary greatly. The costs of drug coverage has been one of the primary drivers of cost escalation in most benefit plans in Canada. The cost of drug benefits, especially specialty drugs such as biologics derived from living cells that are used to treat complex or rare chronic conditions such as cancer, rheumatoid arthritis, hemophilia, and HIV have increased at rates well above standard inflation. This has led to more focused efforts by employers to implement or to negotiate cost containment provisions for drug benefits. For example, employers have sought caps to benefits or co-payments to premiums to control the rising cost of prescription drugs.

If the union anticipates that the employer will seek concessions in drug benefit coverage, it is possible to obtain more detailed experience data on the claims made by bargaining unit members to assess the factors contributing to premium cost increases. However, information related to basic monthly premium costs for drug benefits are sufficient for creating the Base Year Model.

Supplemental medical

Supplemental medical benefits include a range of services such as paraprofessional services, semi private hospital coverage, massage therapy and psychologist services. These individual components of supplemental medical benefits may be packaged into a single benefit premium cost or the benefit carrier may be able to provide line-by-line premium costs associated with each supplemental benefit. In general, greater detail will allow the negotiating team to compare the money-for-value across the various types of benefits.

Long-term disability (LTD)

Like drug benefit costs, the costs associated with long-term disability plans has risen at a rate exceeding increases in the Consumer Price Index (CPI). There are several reasons for the cost escalation, with recent claims being the most important factor. Assessing the value-for-money of LTD benefits can be a more complex exercise given the important tax implications depending on who pays the LTD premium. If the employer pays the premium, the benefit is typically salary-related and an employee receiving LTD benefits will generally have to pay taxes on those benefits. In contrast, if employees pay the full premium, the costs will not be included in the Base Year Model and the employees can generally receive LTD benefits without paying taxes on the benefit payments received.

The Base Year Model does not include premiums paid by employees, but the negotiating team may still want to collect information about LTD premium costs given the importance of this benefit and the significant costs associated with the premiums.

Statutory Benefits

Collective bargaining teams do not typically discuss statutory benefits because such items are not negotiated terms of employment. Nonetheless, statutory benefits are included in the Base Year Model in order to capture the comprehensive structure of total compensation. Changes to employer obligations to pay for statutory benefits, such as rate increases to the Canadian Pension Plan, will affect the bargaining environment and it is therefore important for the union's leadership to see these compensation costs as part of the total compensation package.

Salary-related?	Component of compensation	Source	Information & notes
Depends	Employment Insurance		Record the YMIE from the CEIC website.
Yes	Employer Health Tax		
Depends	Canada Pension Plan		Record the YMPE from the CRA website.[13]
Yes	Workers' Compensation		

13. Refer to Canada Revenue Agency - https://www.canada.ca/en/revenue-agency.html and Government of Canada CPP contribution rates table https://www.canada.ca/en/revenue-agency/services/tax/businesses/topics/payroll/payroll-deductions-contributions/canada-pension-plan-cpp/cpp-contribution-rates-maximums-exemptions.html.

Collective agreements may make passing references to the employer's obligation to ensure payment for statutory benefits and timely remittance of the employees' share for such benefits. For union costing teams, the formulas for calculating the costs are less important than gathering information about the total amount paid by the employer for each statutory benefit on behalf of bargaining unit members.

There are a number of special considerations related to the statutory benefits.

Canada Pension Plan (CPP)

The federal government sets the contribution rates for the CPP, including the Yearly Maximum Pensionable Earnings (YMPE). Employees and employers do not pay premiums on earnings above the YMPE. The CPP is a salary-related benefit or average annual salary (less the Annual Basic Exemption) in the bargaining unit is below the YMPE.

Employment Insurance

Employees and employers pay premiums for Employment Insurance (EI). The Canada Employment Insurance Commission sets the EI premium rate on an annual basis and includes a Maximum Insurable Earnings cap. If the average annual salary for bargaining unit members exceeds the cap, EI is no longer a salary-related benefit in the Base Year Model.

Employer Health Tax

On January 1, 2019, British Columbia joined a number of other provinces by adopting an Employer Health Tax to provide funding to the provincial health care system.[14] The specific formula for the Employer Health Tax (EHT) will vary by jurisdiction, but the basic model constitutes a payroll tax based on total remuneration (all salary and benefits). For this reason, the EHT has a roll-up affect greater than a typical salary-related benefit. For the purposes of the costing model, it is sufficient to treat the EHT as a salary-related benefit.

Workers' Compensation

The premiums for provincial Workers' Compensation insurance programs are payroll taxes based on a complex formula of industry and experience ratings. The Base Year Model requires information on the total premiums paid by the employer for bargaining unit members. The employer is unlikely to have premium payment information on an individual or bargaining unit basis, so the union may need to estimate the appropriate portion from the employer's total payments for all employees. As a payroll tax, this statutory benefit is salary-related and therefore should be included as part of the roll-up factor.

Pensions

Costing pensions for the Base Year Model is possible when the collective agreement clearly defines the employer's contribution rate. Accounting for special solvency payments or payments towards unfunded liabilities in defined benefit pension plans, goes beyond the scope of the Base Year Model and the union bargaining team should seek expert actuarial advice in those situations.

Salary-related?	Component of compensation	Source	Information & notes
Typically yes	Employer contribution rates		Eligibility criteria, contribution rates below and above YMPE.

Pensions are typically salary-related benefits with contribution rates that often vary for earnings below and above the Yearly Maximum Pensionable Earnings (YMPE) set by the federal government, (see discussion of CPP above).[15] The costing model focuses only on employer contributions, which may or may not be specified in the collective agreement. At this step, the costing team should also note eligibility criteria and other factors that may affect the total annual costs of this benefit.

14. Provinces with an Employer Health Tax include Ontario, Quebec, Manitoba, Newfoundland and Labrador, and most recently, British Columbia.
15. Depending upon defined benefit accrual rates, some high-wage employees may reach the annual maximum amount of pension contributions allowed under the Canada Revenue Agency's (CRA) pension benefit rules. (This is distinct from the YMPE threshold for the CPP.) Unless the *average salary* for bargaining unit employees results in contributions above the CRA maximum, pensions will typically remain salary-related benefits.

Annual Payments & Allowances

Annual payments may include both one-time benefits, such as moving expenses, and on-going allowances. Identify and note information about every potential source of allowance as a separate line item in the template. The union may opt to include some allowances, such as professional expenses and tuition payments to dependents, in the Base Year Model, even though they do not constitute compensation to employees under the rules established by the Canada Revenue Agency.

Salary-related?	Component of compensation	Source	Information & notes
	Professional Expenses		Most annual professional expense (PE) allowances are not compensation in a strict sense, but given the importance to academic staff, PE should be included in the costing model.
	Tuition benefits		Some arrangements may seek to buffer this benefit from taxes and therefore technically not compensation. Regardless of the tax arrangements, it is appropriate to include this benefit in the Base Year Model.
	Education Stipend		
	Childcare benefits		
	Other		

Other Benefits

The costing team can record benefits that do not fit into any of the established categories in this section. For example, this may include provisions in the collective agreement that allow for payments of cash in lieu of benefits. The notes in this section should trigger specific questions about the total annual costs of these benefits in the information request letter to the employer.

Post-Employment Benefits

Post-employment benefits, such as severance payments and other benefits that accrue over time but are not paid until the end of the employment relationship can be difficult to cost as new proposals. The employer may budget for the accumulated liabilities for deferred compensation and therefore cost proposals at a relatively high potential payout. However, the Base Year Model focuses on compensation actually paid during a specific reference period, such as the previous academic year. For established post-employment benefits, the experience data for the past year can give the total annual cost and an estimate for the typical separation rate of bargaining unit members.

Salary-related?	Component of compensation	Source	Information & notes
	Severance		Separation rate of employees eligible for this benefit.
	Retiree benefits		

Composition of the Bargaining Unit

Creating an accurate profile of the composition of the bargaining unit is one of the first, and perhaps most essential, steps in costing. The composition of the bargaining unit includes all academic staff covered by the terms and conditions established under the collective agreement. While the administration may consider the “spillover effects” of Academic Staff Association bargaining, the costing model should focus solely on members of the bargaining unit.

Scope Clause & Appointment Types

While the scope of the bargaining unit is typically described in the recognition clause of the collective agreement, costing requires specific details regarding the characteristics for each category or class of employee within the bargaining unit. For example, some associations represent a range of different appointment types such as contract academic staff, tenured and tenure stream faculty, and librarians/archivists. Each appointment type typically has a distinct compensation model with important implications for costing estimates.

If the appointment types constitute different bargaining units, the approach to costing should create a distinct model (spreadsheet) for each bargaining unit. However, even if the appointment types are in the same bargaining unit or covered by the same collective agreement, separate costing models might be appropriate for each distinct compensation structure. Costing practices attempt to balance the simplicity of 'average' employee characteristics with the complexity of more detailed and distinct job classifications. To determine how best to use the costing template, and whether distinct models are needed for different appointment types, begin to identify and to outline the components of compensation for each type of appointment (Step 1 in the costing template). Another important factor will be operational, specifically differences in workload especially in teaching.

Step 1 – Compensation Structures & Appointment Types

When taking notes about compensation, especially in bargaining units with a variety of appointment types, it is best to track the components of compensation by distinct appointment types.

	Contract academic	**Continuing appointment**	**Full responsibility**	**Librarian/Archivist**
Salary	Per course	% FTE	Annual	Annual
Supplemental health benefits Drug benefits Paraprofessional Dental LTF	Eligible? Pay in lieu?	Eligible? Pay in lieu?	Premium payments Benefit levels	Premium payments Benefit levels
Pension Defined Benefit or Defined Contribution	Eligibility?	Access?	Contribution rates Employee Employer	Contribution rates Employee Employer
Allowances Professional expenses Childcare funds Tuition support funds	Pro-rated?	Pro-rated?	Tied to ATB?	Tied to ATB?
Premiums Overload payments				

The information needed to calculate the total annual cost for each component of compensation would likely vary by appointment type. The kind of detailed information needed about the composition of the bargaining unit will also vary by appointment type.

Step 2 – Data Requests & Union Rights to Information

Union access to information about the terms and conditions of work and the bargaining unit[16] is a well-established right across all jurisdictions in Canada. This right stems from the principle of the 'duty to bargain',[17] and an essential feature of good faith bargaining. 'Good faith' serves as a cornerstone of the legal framework for collective bargaining legislation. When employers refuse to share information the union needs in order to prepare for negotiations and make well-informed decisions about bargaining proposals, such a refusal may constitute bad faith bargaining and therefore an unfair labour practice. In DeVilbiss (Canada) Ltd., the labour board adjudicator wrote directly to the issue of union access to information:

> *Of additional concern is the respondent's failure to respond to the complainant's request at this first meeting for existing wage and classification information. Particularly in "first agreement" situations, it is little wonder that a complainant would have an incomplete monetary demand until it fully appreciated the current rate of wages paid by a respondent and the detailed nature of its job structure. Rational and informed discussion cannot easily take place until this information is provided to a trade union and thus this aspect of the duty supports its production. As a general matter of policy, if parties are to engage in economic conflict their differences ought to be real and well-defined. It is patently silly to have a trade*

16. Access to information by associations without certified legal bargaining authority under the applicable labour relations act is more limited.
17. *Bargaining Advisory on the Provision of Information to the Association,* Canadian Association of University Teachers, April 2016.

> *union "in the dark" with respect to the fairness of an employer's offer because it has insufficient information to appreciate fully the offer's significance to those in the bargaining unit. Moreover, a trade union has a duty to all of the employees in the bargaining unit and thus has to be concerned, in a large measure, with equality of treatment.*[18]

This does not mean that unions have an unfettered right to information and an employer's obligation to share unsolicited information is limited. The employer is under no obligation to share information that is not relevant to negotiations or specific proposals and cannot provide information it does not collect. Union information requests should not be so broad as to reflect a 'fishing expedition' for information. The employer also has the right to charge reasonable expenses associated with fulfilling the union's request for information.

The union can strengthen its request for information in preparation for bargaining by providing clear, detailed, and specific descriptions of the information needed to support rational, informed decisions based on accurate costing estimates.

Strategies to Improve Information Disclosure

The first step in crafting an effective information request comes from taking careful notes during the process of identifying the various components of compensation in the collective agreement. For each element of compensation, the costing process seeks to calculate the total annual cost for that item. What information is needed to calculate the total annual cost? The more detailed and specific that question can be written, the stronger the information request. Two important costing concepts help focus methods for asking about information related to compensation costs: 1) **snapshot date**, and 2) **reference period**.

The snapshot date refers to certain conditions of employment or facts about the bargaining unit on a specific date. For example, to obtain the most accurate information about supplemental healthcare premium costs, the union's request should ask for the monthly premium on the last day of the current collective agreement. That snapshot in time provides a better measure than asking for the total annual payment in benefit premiums over the previous year since rates often change as a result of annual contract renewals with benefit carriers.

However, calculating the costs for some benefits requires a reference period – a longer timeframe to capture the operations of the university or college and the total compensation costs. For example, the union may have identified teaching overload as a potential source of compensation premiums in the collective agreement. To calculate the total annual cost of this component of compensation, the union needs to know how many bargaining unit members were paid overload over the past twelve months. The data request in the letter should ask for the name, overload amount, course, proportion of course responsibility, and what term the course was offered.

Payroll systems may not capture all of the information requested and the employer may not collect every data point. The employer may not have the information in a specific format. Payroll systems and human resource information systems are not designed to support collective bargaining, so the employer may not be able to isolate certain facts. The point for the information request letter is to make it as detailed and clear as possible so that the union can receive the information necessary for calculating the total annual cost for every component of compensation.

The union cannot expect to receive the information in an arbitrary format. However, keeping the end goal of estimating the total annual cost for each component of compensation will allow the union to adapt the information as required. (A sample information request letter is included in Appendix B.)

18. *United Electrical, Radio and Machine Workers of America v. DeVilbiss (Canada) Ltd.*, OLRB, 1976. A number of additional cases detail the union's right to information as part of the employer's good faith bargaining obligations: *Pine Ridge District Health Unit,* 19771 OLRBR Feb.65; *CUPE, Local 30 v. Edmonton (City)*, Alta. LRBR 102, 1995.

Step 3 – Bargaining Unit Database

A critical part of the information request is gathering information about the composition of the bargaining unit. In order to complete Step 4, a summary of basic information in the costing template, the union should build a database of academic employees with as much as the following information about the bargaining unit as possible:

1. Name
2. Base salary
3. Administrative and other stipends
4. Merit award in previous academic year
5. Total annual salary in previous academic year
6. Regular teaching load
7. Appointment type / rank
8. Full-time equivalency designation
9. Step or years of service

Some unions maintain more complete and complex databases. Performing costing estimates directly with an employee database can provide detailed estimates of the cost of salary increases, especially if the database is designed to account for differential breakpoints in career development models. However, designing the database to account for total compensation would require a far more involved design and structure. The Base Year Model seeks to balance the accuracy of highly detailed salary models with a functional method for costing total compensation.

It is likely that some administrations do not record or track information about teaching activities on an individual level (item 6). Even if the course instruction information is tracked, the data may come from distinct sources or systems which cannot merge the data with payroll information. For this reason, an effective strategy in information requests is to seek information at the most detailed level, but suggest an alternate format that will still satisfy the objective of the request. In the case of teaching activities, the goal is not to create a detailed database of individual teaching activities, but to gather information about operations to model the average workload of bargaining unit members. If the regular teaching load at the individual level is not available, get the total number of courses taught by the bargaining unit and calculate the average by FTE.

While labour boards have consistently upheld the union's right to information to ensure good faith bargaining and support rational, informed discussions, unions can improve information disclosure practices by negotiating such disclosure obligations into the collective agreement.[19]

Collective Agreement Language

The CAUT Bargaining Advisory bulletin on the *Provision of Information to the Association*, provides a range of examples of language used in collective agreements to ensure information disclosure. Central to costing procedures would be information about bargaining unit members and the institution. Academic staff associations can negotiate language into the collective agreement to provide information about external contracts, especially with benefit carriers, as shown in the section on negotiating benefits.

Step 4 – Summary Basic Information

Using the information from the employee database, the template populates the summary of basic information in Step 4 (see Figure 3).[20] The formatted excel worksheets provide a generic tool for summarizing the basic information, but custom adaptation may be necessary depending on the composition of the bargaining unit. Manual calculations or alternate sources of data may also be necessary, especially for the basic information related to courses and the average salary per course.

19. *Bargaining Advisory on the Provision of Information to the Association,* Canadian Association of University Teachers, April 2016.
20. If differences in compensation structures across various appointment types warrants separate costing models by appointment type, the database should be separated and different templates used for each appointment type. This separation will have to be carried through the entire framework and result in a Base Year Model for each appointment type.

Figure 3: Summary of basic information

Reference period		Snapshot date	
Full-time employees		Total annual base salary costs	
Part-time employees			
Headcount (HC)		Average annual salary per HC	
Full-time equivalents (FTE)		Average annual salary per FTE	
Total courses (credits) delivered			
Average courses (credits) per FTE		Average salary per course	

Reference period: Note the primary reference period used in the collection of experience data, typically the 12 month academic year immediately preceding the expiry of the collective agreement.

Full-time employees: A simple headcount measure of the total number of employees designated as holding a full-time appointment (FTE = 1.0).

Part-time employees: A simple headcount measure of the total number of employees holding a part-time appointment, (FTE < 1.0).

Headcount (HC): The sum of full-time and part-time employees.

Full-time equivalents (FTE): A weighted measure of employees in the bargaining unit that pro-rates part-time employees by their FTE appointment.

Total courses (credits) delivered: A measure of the total number of courses (or academic credits) delivered by members of the bargaining unit.

Average courses (credits) per FTE: This ratio $(Courses/FTEs)$ provides the average workload per FTE.

Snapshot date: Record the date for data collected based on a single point in time.

Total annual base salary cost: This is a measure for the total regular salary mass for members of the bargaining unit.

Average annual salary per HC: Base salary costs divided (weighted) by Headcount (HC).[21]

Average annual salary per FTE: Base annual salary costs divided (weighted) by total FTE. This number is generally higher than average annual salary per HC.

Average salary per course: This measure serves as the most basic unit of cost, rather than compensation cost per hour, in the Base Year Model adapted for the postsecondary sector.

21. The primary use for the average annual salary per HC is to determine whether certain statutory benefits (CPP and EI) are salary related or above the annual cap.

Module – Costing Salary Models & Career Development Increments

Some post-secondary institutions follow a traditional salary grid system. Under a traditional grid system, an employee automatically advances a step according to negotiated time increments. These advances are time-based and not dependent on performance or merit.

Other salary models include various ways of combining career development increments with merit pay or other performance-based compensation. These non-grid salary models typically share several characteristics. These models may specify a salary floor and a salary cap by academic rank. Most non-grid salary models include career development increments with breakpoints at specific salary levels or years of service.[22]

Costing & PTR

There is a fundamental difference in perspective between academic staff associations and most administrations regarding the costing impacts of PTR models and their role in the economics of the collective bargaining relationship. Arbitrator Burkett's 1982 interest arbitration award at the University of Toronto acknowledged the nature of the conflict and affirmed the association's perspective regarding PTR:

> *Before outlining the respective positions of the parties it is necessary to describe in summary form progression through the ranks scheme (PTR) which is in place at the University. Although the parties are agreed that the PTR scheme should remain in place, there is a disagreement between them with respect to whether or not the value of PTR increases should be included for purposes of calculating the value of the universities offer. More importantly, there is a fundamental disagreement between the parties with respect to whether or not average PTR increases should be included in calculations to determine the relative position over time of the salaries paid to University of Toronto faculty compared to wages and salaries of other groups in society or to movement in the consumer price index.*
>
> *The original recommendation of the budget committee in support of the PTR scheme was framed in terms of an allocation of funds for "career advancement" and I am satisfied that the annual PTR increase is given, where it is earned, to effect this purpose. The purpose of the PTR increase therefore is not to advance the salary ranges but to recognize merit by moving individual faculty members through the salary ranges. Upward movement of the salary ranges is achieved by means of, and in the amount of, the annual economic increase. It follows that only the amount of economic increase should be included for purposes of determining how faculty salaries have fared over time.*[23]

While this interpretation and perspective of PTR's in faculty salary models has been largely upheld in most interest arbitrations, there are fundamental weaknesses in the sustainability of this position for associations. First, any changes to PTR formulas opened the entire model to arguments that these constitute economic demands by the union. Chief Justice Winkler articulated this danger in the 2006 arbitration award at the University of Toronto:

> *With respect to the competing PTR proposals, in consideration of determination that this should be a two-year award, we conclude that the University's proposal to make special allotment to the PTR pool more closely reflects the likely bargained result than does the association's proposal to increase respective pools by one percent of salary. We extended to apply on equal terms to the second year of the agreement. The PTR pool has historically been available to ensure that the meritorious achievement of faculty members is properly rewarded. In that respect, while PTR amounts have the dual effect of increasing the base pay of faculty members once awarded in a continuing impact thereafter in regard to faculty wide ATB increases, the available pool has never been tied specifically to the total salary allocation. The Association proposal to increase the PTR pool by the amount suggested has ramifications that require consideration of the effect on the overall economics of the relationship.*[24]

The second fundamental problem with PTR salary models has been their failure to achieve self-funding sustainability. In theory, career development increments are not supposed to result in an overall increase in the salary mass because of the differences between retiring faculty with high salaries and new appointments with much lower salaries. There are a variety of reasons for the inability of these salary models to be self funding. First, new faculty appointments have been hired at salary levels well above the assistant professor floor. This significantly reduces or

22. For a survey of university salary models see Chant, John. "How We Pay Professors and Why It Matters", *The Education Papers*, ed. C.D. Howe, 2005.
23. Burkett, Kevin. *University of Toronto and University of Toronto Faculty Association*, unreported, 1982.
24. Winkler, Warren. *The Governing Council of the University of Toronto and the University of Toronto Faculty Association*, 2006, p. 12.

eliminates any savings from retirements. Second, the limitation of mandatory retirement has extended the working careers of faculty at the top end of the salary scale.

From the perspective of administrations, the failure of career development increments or PTR schemes to achieve self-funding dynamics has led them to view this component of the salary model as having a real impact on compensation costs. The University of Toronto articulated this position in their interest arbitration brief submission to Arbitrator Teplitsky in 2010:

> *Although there may have been a hope at the beginning of the PTR scheme, in the 1970s, that the funds for PTR fund could be "recovered" within the operating budget from the difference between salary lines eliminated through retirements and those of new hiring salaries, that recovery model was never fully realized and has ceased to have any meaningful application in the University for many years. Under the current budget model, divisions must fund all compensation increases from the overall operating funds in the same way as they fund any other increase or expense. There is no longer any notion of retirements funding PTR or any other compensation increases; the implications of factors such as the elimination of mandatory retirement in the ensuing low number of retirements as well as a significant increase to hiring salaries over the past 20+ years and other variables in the complement have made the approach obsolete.*[25]

While academic staff associations should maintain the position that career development increments and PTR schemes should not be factored into the economics and costs of bargaining proposals, administrations will continue to challenge these models and seek to offset the cost impacts in other areas of compensation. Efforts to increase the merit pool in salary models that effectively combine PTR and merit could potentially open the entire salary model to arbitral review and costing.

25. Brooks, John. "University Arbitration Brief", *University of Toronto and University of Toronto Faculty Association*, Hicks Morley Hamilton Stewart Storie LLP, 2010, 21, paragraph 35.

Part 3: Calculating Costs & Building the Base Year Model

Quick Reference – Part 3 Summary

Part 3 reviews the step-by-step process to calculate costs for each category of compensation and build the Base Year Model. There are **four key calculations** to express cost:

1. Total annual cost
2. Average annual cost per FTE
3. Average cost per course per FTE
4. For salary-related benefits, percent of base salary.

The **roll-up factor** provides a measure of the cost increases triggered automatically by an increase in the base salary. Because of the salary-related benefits, a 1% base salary increase results in a higher cost impact. For example, if the compensation structure has a roll-up factor of 0.3, (salary-related benefit costs are proportionally 30% of total base salary costs, a $1,000 base salary increase will actually cost $1,300.)

Part 3 reviews the calculations and special considerations for each category of compensation in steps 5 through 11 in the template. The summary table in each step populates step 12 to create the Base Year Model.

The template automatically calculates the roll-up factor in the Base Year Model. The summary provided in the Base Year Model also provides the association leadership with insights about the compensation structure and the underlying university or college operations.

The Base Year Model serves as the benchmark for calculating the cost impacts of collective bargaining proposals and comparing them to the existing cost structure of compensation. The Base Year Model reflects the costs of each component of compensation on a per course per FTE, an annual basis per FTE, and the total costs of each component of compensation for the entire bargaining unit.

This section reviews the step-by-step procedure to use the information about compensation to cost each category and build the Base Year Model. While the calculations and formulas are mathematically straightforward, linking the cost information to the underlying operational assumptions in the Base Year Model requires careful consideration for the negotiating team to use the tool effectively during negotiations. This section begins with an overview of the calculation methods and various formats for expressing costs.

Framework for Calculating & Expressing Costs

The framework for calculating and expressing costs for each category of compensation follows a standardized model. The process builds upon the critical steps of identifying and assessing each component of compensation and collecting information to calculate the total annual costs for each component of compensation. Most important, the salary-related benefits should be flagged and the costing team should have the information about the total annual cost for every component of compensation.

There are four key calculations to express compensation costs:

1. **Total annual cost:** This is the total paid by the university or college for a specific benefit for all bargaining unit members per year.[26]

26. If different appointment types have been divided into separate costing models, use only the number of bargaining unit members in that appointment type.

2. **Average annual cost per FTE:** This figure is calculated by dividing the total annual costs by the FTE.[27]

$$\text{Average annual cost per FTE} = \frac{\textit{Total annual costs}}{\textit{Total number of FTEs}}$$

3. **Average course cost per FTE:** This number is calculated by dividing the average annual cost per FTE by the average number of courses delivered by FTE.

$$\text{Average course cost per FTE} = \frac{\textit{Average annual cost per FTE}}{\textit{Average number of courses per FTE}}$$

4. **Percent of salary-related benefits to base salaries:** This calculation is only necessary for salary-related benefits. The figure is used to calculate the roll-up factor for the Base Year Model, (see the Module below on salary-related benefits). This number is calculated by dividing the total annual cost of the benefit by the total annual salary figure from the summary of basic information.

$$\text{Salary-related benefit as a \% of base salaries} = \frac{\textit{Total annual cost of salary-related benefit}}{\textit{Total base salaries}}$$

Figure 4 - Worksheet framework the costing template

Component of compensation:							
	Salary-related?	**Units**	**Rate**	**Total annual costs**	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**
Item 1							
Item 2							

Summary for Category:				
	Total annual costs	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**
Total salary-related costs				
Total non salary-related costs				
TOTAL COSTS OF ...				

Figure 4 presents the worksheet framework the costing template uses for each category of compensation. From Step 5 (Premium Pay) through Step 11 (Post-employment Benefits), the template uses the same process to calculate and express costs:

1. Use information to confirm or calculate total annual costs of each component of compensation for the entire bargaining unit.
   a. Note in some cases, it may be necessary to build up the cost of each component of compensation from an individual level to the entire bargaining unit.
2. Once the total annual costs are entered for each item, the preformatted cells in the template will automatically calculate the average annual cost per full-time equivalent (FTE) and the average cost per course per FTE using data from the summary of basic information (Step 4).
3. If the check box indicates that the component of compensation is salary-related, then the template will also calculate wage-related items as a percentage of base salary.
4. At the bottom of each worksheet, the template summarizes all components in each compensation category.

27. It is important to note that if only a portion of the bargaining unit is eligible for certain benefits, the costs will still be expressed as an average of the total bargaining unit. This procedure standardizes the value of benefits across all components of compensation.

The template cells are formatted to perform calculations and populate the Base Year Model from the summary cells. However, depending on the number of items in each category, some adaptation of the formatted cells will be required in most situations.

A critical advantage to using the Base Year Model during negotiations is that it provides the negotiating team with a tool to calculate the ***roll-up costs*** associated with changes in base wages. A two percent (2%) increase in base salaries will impact costs associated with all of the salary-related components of compensation, such as pension contributions. The proportion of costs associated with salary-related benefits to total base wage costs provides a quick estimation of roll-up costs.

Module – Cost Impacts of Salary-Related Benefits

The roll-up factor provides a quick and accurate estimate of the total costs associated with changes to the base salary. In simple terms, a 2 per cent across-the-board (ATB) increase could have a higher actual total salary and salary-related cost impact because of the automatic increases associated with salary-related benefits. For example, the 2 per cent ATB would result in a 2.6 per cent total cost impact if the compensation structure and associated operational assumptions result in a roll-up factor of 0.30.

Any benefit that is tied to the base salary, such as pension contributions, life insurance, and long-term disability (LTD), is part of the roll-up factor. The costs associated with these benefits automatically change with any changes to the base salary. Typically, no additional negotiations or proposals are needed to effect these increases because the benefit levels are already established in the collective agreement and based on the salary of the employee.

When costing compensation and developing the Base Year Model, it is important to make a special note flagging all of the benefits which are salary-related. However, not all components of compensation are salary-related, even items that may be paid as part of a salary. An example of a non salary-related benefit would be a flat rate (dollar-based) stipend. The union may negotiate the application of the across-the-board increase to this stipend, but this benefit will not increase automatically as a result of the ATB increase. Generally, salary-related benefits are constructed as a percentage of the base salary, whereas non salary-related benefits are flat rates or stipend amounts.

How to Calculate the Roll-Up Factor

Calculating the roll-up factor involves identifying and accounting for the impact of salary-related benefits which 'roll-up' the costs of an across-the-board increase (ATB) or general wage increase (GWI). The following steps calculate the roll-up factor.

1. Identify all of the components of total compensation which are salary-related.
2. Collect information about the salary-related benefit in order to calculate the total annual cost of that benefit for the entire bargaining unit.
3. Divide the total annual cost of the salary-related benefit by the total annual base salary cost for the bargaining unit (see Step 3 in the costing template). This calculation provides the partial roll-up factor (percentage) for that benefit item.
4. To calculate the total roll-up factor, divide the total annual costs of all salary-related benefits by the total annual base salary cost for the entire bargaining unit.

Example from the Summary Base Year Model

The process for calculating the roll-up factor is summarized in the Base Year Model. Each step in the process outlined by the template systematically constructs and calculates the roll-up factor. It is very important to note that the roll-up factor is a combination of both the structure of compensation and the operational assumptions in the Base Year Model. In the postsecondary sector, such operational assumptions may not be as significant as an industrial setting where overtime hours worked may be the largest contributing benefit to the roll-up factor. Tracking the salary-related benefits throughout the process of collecting compensation data and calculating total annual costs for each benefit category leads to the summary costs for each category of compensation, as shown in the Summary of Base Year Costs table on the next page.

The Base Year Model summarizes each category of compensation with the components divided between salary-related and non salary-related benefits. To calculate the roll-up factor, total salary-related costs are calculated as a percent of total base salaries, cell F29 in the Summary Base Year Model template. The Base Year Model also provides important insights to the compensation structure and those components that provide the greatest contribution to roll-up costs.

Step 12 - Summary base year model

Summary of Base Year Costs					
	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 and 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					

During negotiations, the roll-up factor can be used to provide a quick, yet accurate estimate for the total cost impact of the change to the base salary. Rather than running the ATB calculation for every salary-related benefit, a single calculation using the roll-up factor or costs of all salary-related benefits will provide the bargaining team with information about the total cost impact of the ATB.

Step-by-Step Costing Considerations

Step 5 – Premium Pay

When confirming the total annual costs of premium pay, the costing team will have to assess which sources of compensation payments were central to operations. Academic staff may earn extra payments from a variety of sources, including research grants, professional (non-credit) programs, and similar 'soft money' revenue generating activities. In general, the union should be cautious about including soft money revenue sources in the Base Year Model compensation structure.

While not all academic staff will earn premium pay during any given reference period, the cost associated with each premium is averaged over the entire bargaining unit on an FTE basis. This is the case for every component of compensation in the Base Year Model.

One method for confirming the total annual costs for each component of premium is to multiply the number of units of work (overload courses, stipends, etc.) by the average rate for each component. This can also provide the costing team with a comparative assessment of the value of teaching overload courses versus the value of teaching as part of the academic staff member's normal workload.

Component of compensation: Premium pay							
	Salary-related?	**Units**	**Rate**	**Total annual costs**	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**
Premium 1	☐						
Stipend 1	☐						
Stipend 2	☐						
Overload 1	☐						
Overload 2	☐						

Summary for category: Premium pay				
	Total annual costs	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**
Total salary-related costs				
Total non salary-related costs				
TOTAL COSTS OF PREMIUM PAY				

The template worksheet will automatically populate the summary section based on the calculations of each component of compensation. The summary divides the components between salary-related and non salary-related provided the check boxes have been marked in the main worksheet area.

Step 6 – Insured Benefits

In confirming the total annual costs of insured benefits, using the experience data from the previous academic year may not provide an appropriate benchmark for current premium costs going forward. Insured benefit premiums tend to increase every year – substantially in the case of drug benefits and LTD. Instead, a snapshot date of the premium costs at the expiry of the current collective agreement tends to provide a better benchmark going forward. When using monthly premiums, it will be necessary to 'build up' to the total annual costs for each component of insured compensation.

To calculate total annual costs, include only the employees in the bargaining unit eligible for the benefit and for whom the employer was obligated to make payments. In some situations, employees may have the option to take pay in lieu of benefits. In this case, use the experience data for the actual number of employees provided the insured benefit rather than the total number of eligible employees in the bargaining unit. Likewise, some collective agreements provide benefits to part-time employees on a pro-rated basis. These costs will need to be converted to FTE and added to the total annual costs.

Component of compensation: Insured benefits							

Coverage	**Single**	**Family**
Percentage		

Insured Benefit	**Salary-related?**	**Monthly rate (single)**	**Monthly rate (family)**	**Total annual costs**	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% base salaries**
Supplemental health							
Dental							
Prescription drugs							
Vision							
Long-term disability							
Basic life							

Summary for category: Insured benefits	**Total annual costs**	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% base salaries**
Total salary related costs				
Total non salary-related costs				
TOTAL COSTS OF INSURED BENEFITS				

One last consideration for insured benefits is that the template facilitates calculations of the employer's weighted average costs for premium payments based on the rates and enrolment information gathered. If premium rates differ for family and individual enrolees, the enrolment ratios and rates can be entered to calculate the weighted average premium. The weighted premium rates are then used to express the costs of each component of insured benefit compensation. Once again, the worksheet template summarizes the total for all the benefits in this category of compensation. However, the simpler approach of gathering information about the total annual premium costs associated with each insured benefit will be sufficient in most cases.

Step 7 – Statutory Benefits

The union should request the total amount paid on behalf of bargaining unit members for each statutory benefit rather than attempting to calculate the total annual costs based on payment rates. However, the union costing team should still collect information about key figures, such as the YMPE and the YMIE, as these caps are required to determine if the benefits are salary-related. If the average annual salary by headcount (HC) is below the YMIE or YMPE (less the annual base exemption), then the benefit is salary-related.

Component of compensation: Statutory benefits						
		Value	**Total annual costs**	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**
Canada Pension Plan *Based on headcount (HC)*	Rate					
	ABE					
	YMPE					
	YPE					
Employment Insurance *Based on headcount (HC)*	Rate					
	YMIE					
Employer Health Tax	Rate					
Workers' Compensation	Rate					

Summary for Category: Statutory benefits				
	Total annual costs	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**
Total salary-related costs				
Total non salary-related costs				
TOTAL STATUTORY BENEFIT COSTS				

Payroll-based statutory benefits, such as provinces with an Employer Health Tax and most Workers' Compensation premiums, are salary-related.

Step 8 – Pension

Begin by confirming that the total annual costs includes only the employer's portion of the regular contribution rates. To confirm the accuracy, the union can build up the annual cost based upon the contribution rates and the average annual salary. It is important to note that most pension contribution rates 'wrap around' the CPP, requiring higher contributions for earnings above the CPP's YMPE. Generally, pension benefits are a salary-related benefit and can represent a significant source of roll-up costs.

Component of compensation: Employer pension contributions						
	Salary-Related?	**Rate**	**Total annual costs**	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**
> YMPE						
< YMPE						

Summary for category: Employer pension contributions				
	Total annual costs	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**
Total salary-related costs				
Total non salary-related costs				
TOTAL COSTS OF EMPLOYER PENSION CONTRIBUTIONS				

Costs associated with pension benefits have been a flash point in bargaining disputes, particularly for plans facing unfunded liabilities. The Base Year Model focuses on specific contributions associated with current pension benefit accruals, not special payments that may be required for solvency or going-concern liabilities. In those situations, the union should retain professional actuarial advice to assess the employer's costing claims.

Step 9 – Annual Payments & Allowances

When confirming the total annual costs for some allowances, the union negotiating team may face the challenging reality that academic staff routinely 'leave money on the table' by failing to claim allowances for which they are eligible. Professional expenses is the classic example of this dilemma since it is not technically a component of compensation but something of value to most academic staff.

Collective agreements typically establish allowance maximums and timeframes for claim submissions. The university or college generally retains any unclaimed allowances and the pattern of unclaimed allowances becomes a factor in the employer's operational budgets. However, for costing purposes, it is better for the union to cost professional expenses and similar allowances at the full potential cost impact rather than discount these benefits based on experience data.[28]

Component of compensation: Annual payments & allowances						
	Salary-related?	**Value**	**Total annual costs**	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**
Professional expenses						
Education stipend						
Other allowance						

Summary for category: Annual payments & allowances				
	Total annual costs	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**
Total salary-related costs				
Total non salary-related costs				
TOTAL COSTS OF PAYMENTS & ALLOWANCES				

28. This does not mean that union negotiators should not use the argument of reduced claims experience during negotiations. Rather, presenting demands for an economic enhancement while asserting that the cost impacts will be less because employees will not claim their entitlements is a weak position to defend.

Step 10 – Other Benefits

As with other categories of compensation, some of the benefits included on this worksheet may apply to only a portion of the bargaining unit. Once again, the total annual costs are averaged across the total bargaining unit (or appointment type in split models). This ensures that the costs associated with this benefit are expressed in the same format as all other components of compensation.

Component of compensation: Other benefits						
	Salary-related?	**Value**	**Total annual costs**	**Average annual cost per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**
Other benefit 1						
Other benefit 2						

Summary for category: Other benefits				
	Total annual costs	**Average annual cost per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**
Total salary-related costs				
Total non salary-related costs				
TOTAL COSTS OF OTHER BENEFITS				

Step 11 – Post-Employment Benefits

Confirming the total annual costs of post-employment benefits requires the underlying assumption that the institution's post-employment costs experienced during the reference period provide a good prediction of costs going forward. Again, there is a difference between university or college budgeting practices, which may track total potential liability for deferred benefits and severance payments, and costing practices based on experience data from the reference period.

Component of compensation: Post-employment benefits						
	Salary-related?	**Value**	**Total annual costs**	**Average annual cost per FTE**	**Average course (credit) cost per FTE**	**% of base salary**
Severance						
Retiree benefits						

Summary for category: Post-employment benefits				
	Total annual costs	**Average annual cost per FTE**	**Average course (credit) cost per FTE**	**% of base salary**
Total salary-related costs				
Total non salary-related costs				
TOTAL COSTS OF POST-EMPLOYMENT BENEFITS				

Step 12 - The Base Year Model

The Base Year Model uses the summaries of each component of compensation to establish the benchmark cost structure of compensation for academic staff members. These elements are summarized so that the cost structure of compensation can be expressed in terms of base salaries, salary-related and non salary-related benefits, and total compensation costs.

The Base Year Model reflects the structure of compensation and provides a benchmark for assessing the impact of collective bargaining proposals over a multi-year period. The summary template of the Base Year Model includes a column to calculate the cost of each component of compensation as a proportion of total payroll (total salary + total benefits).

How to Use the Information in the Summary Base Year Model

The Base Year Model provides the union negotiating committee with a summary view of the bargaining unit's current compensation structure. While the Base Year Model serves as benchmark to cost collective bargaining proposals during the negotiations process (see Part 4), the model provides other useful information about the structure of compensation.

Compensation structure

By presenting each category of compensation as a proportion of total compensation, union negotiators can quickly assess the structure of compensation in the bargaining unit. This provides important insight into the money for value considerations when developing the mandate and crafting bargaining strategies. For example, the summary Base Year Model displays the costs of insured benefits as a percentage of total compensation costs. As benefits have expanded, it is important to see their relative weight in the total compensation package.

Operational factors

Information about operational factors in the compensation cost structure can also be assessed from the summary Base Year Model. For example, if premium pay for teaching overload constitutes a significant portion of total payroll, then this suggests that the institution relies more on overload teaching than complement expansion.

Roll-up factor

The summary Base Year Model calculates the total roll-up factor for compensation costs in the bargaining unit. This figure can provide a quick estimate of the roll-up costs associated with a change in the base salary.

Equity Considerations

There have been significant advancements in the ability of academic staff associations to address discrimination in salary models and promote greater equity, especially gender equity. There is an important strategic issue related to costing practices and equity considerations. Costing is typically associated with the economic demands represented by the association's bargaining proposals. Equity considerations represent ongoing efforts to eliminate discriminatory treatment in compensation and therefore do not constitute new economic benefits for the affected members.

Including the economic impacts of equity considerations within the costing model, and to some extent including those economic demands within the union's regular monetary proposals, has the potential to conflate the principles of equity with the basic economic impacts of changes to the collective agreement. However, pay equity legislation in most jurisdictions make alternate avenues for addressing discriminatory pay practices within job classifications challenging. An alternate approach, currently enshrined in a range of faculty association collective agreements, is language directing the creation of a joint committee for analyzing equity considerations. In many of these examples, the union negotiates a fund to address anomalous salaries. Strategically, the unions balance the certainty of monies to address the effects of discriminatory compensation practices against other strategies, such as public campaigns or legal claims. Unions should also be cautious regarding language providing market differentials and retention funds as these may be the source of inequities.[29]

Costing models can inform equity considerations, but averaging compensation profiles in the Base Year Model may also mask important information. This reinforces the importance of negotiating language that enables on-going reviews of compensation for equity purposes. Indeed, effective equity practices present an important opportunity for

29. *Bargaining Advisory on Market Differentials & Supplements,* Canadian Association of University Teachers, October 2018.

ongoing union-management costing practices. There is a variety of examples for incorporating compensation equity provisions in the collective agreement. Most establish a joint committee to review potentially anomalous salaries. Some, like the University of Guelph Faculty Association establish basic terms:

> *Letter of Understanding 13 – Joint Salary Review*
>
> *The Parties agree this letter will form part of the Collective Agreement.*
>
> *The Parties agree that within six (6) months of ratification they will commence a Joint Salary Review. The purpose of the review will be to examine the issue of salary anomalies, if any, and make recommendations for correction of any identified anomalies. The work of this committee, including recommendations, will be completed no later than December 2018. The timeline may be extended by mutual agreement.*[30]

In other examples, the union bargained more prescriptive language regarding the methods for determining anomalies such as the terms negotiated by the Queen's University Faculty Association:

> 2.2 The allocation from the Anomalies Side-Table Fund shall be performed by an Anomalies Side-Table of the JCAA pursuant to the following terms:
>
> a. *The Anomalies Side-Table shall compare all salaries to a model based on years of experience, merit and discipline group. Applications shall not be required nor entertained for Anomalies Side-Table decisions.*
>
> b. *Years of Experience shall be as determined by the Deans according to the most recent Years of Experience Guidelines approved by the JCAA.*
>
> c. *No awards shall be made to any Member who is not identified by the model as anomalous. Anomalous is defined as a salary that is at least 5% below the predicted salary for the Member. No requests for special adjustments will be entertained, nor recommendations made with respect to such adjustments.*[31]

Access to the necessary salary information is essential and strengthened by the creation of these joint union-management committees. The challenge, as with most committee structures, is making sure the committees operate in a timely and effective manner. Through costing procedures, the union can create greater independent capacity to administer these provisions in the collective agreement.

30. University of Guelph Faculty Association Collective Agreement, July 1, 2017 - June 30, 2021, Letter of Understanding 13 (p. 190).
31. Queen's University Faculty Association Collective Agreement, May 1, 2019 - 2022, Appendix K, Article 2.2 a, b, c. (p. 260).

Costing Timeline

Preparation Phase

Six (6) Months Prior to Expiry

- Begin building Base Year Model costing spreadsheet:
  - Create profile of all appointment types in the bargaining unit
  - Identify all components of compensation
  - Identify data sources and special considerations
- Draft and update data request letter
- Update member database from association records

Three (3) Months Prior to Expiry

- Send employer notice to bargain
- Information / data request
- Update bargaining unit database with employer data inputs
- Calculate summary information
- Cost salary range changes (1% - 2% - 3% - 4% - 5%)
- Consult independent benefit carrier / broker
- Solicit input and develop mandate

Formal Bargaining

- Request cost estimates for employer proposals
- Conduct independent cost estimate of employer proposals
- Estimate cost 'gap' between union and employer proposals

Conciliation & Interest Arbitration

- Document the costing steps and procedures in the arbitration brief
- Use total compensation for comparators
- Highlight key assumptions in the costing model

Part 4: Costing During Negotiations

Quick Reference – Part 4 Summary

Part 4 reviews how to use the Base Year Model as a benchmark for costing specific proposals during negotiations. There are two important methods for reporting costs:

1. **Cash flow** reports the 'new money' needed to pay for the changes in a year or over the term of the collective agreement. Cash flow is reported as a total dollar amount.
2. **End rate** reports the ongoing, structural changes to compensation. End rate is reported as a percentage increase to total compensation.

When costing multi-year proposals, it is important to account for the **compounding** effects of ongoing changes to compensation.

There are several special modules in part 4 which review the following topics:

1. Costing changes to employee rights.
2. Costing faculty complement.
3. Costing changes to paid and unpaid leaves.

In some cases, changes will not increase individual compensation, but the **changes impact the underlying assumption**s about the composition of the bargaining unit. If it takes more academic staff to deliver courses, such changes may have a significant impact on the overall salary mass of the bargaining unit.

In other cases, strengthening employee rights does not result in any direct cost increase but may constrain management rights to unilaterally direct the operations of the university or college. In general, employers will vigorously resist the erosion of management rights, even if there are no direct or immediate costs associated with the change. There are **limitations to the role of costing** and in these cases, **bargaining power** will determine the outcome.

This section discusses how to use the Base Year Model and information collected about compensation during the negotiations process. The basic objective in costing collective bargaining proposals is to estimate the value of 'new money' related to each proposed change to the current terms and conditions in the collective agreement. The Base Year Model serves as the benchmark or reference point to determine the variance or relative cost of each proposed change. The primary objectives of this section include:

1. The importance of systematically costing collective bargaining proposals
2. How to use the template to cost proposals
3. Special considerations when costing proposals during negotiations, especially proposals related to:
    a. Costing changes to employee rights in the collective agreement.
    b. Costing changes to the complement of academic staff.
    c. Costing changes to paid and unpaid leaves.

Framework for Using Base Year Model to Cost Proposals

Using information about compensation to cost the impact of collective bargaining proposals on compensation begins with the summary of costs for the Base Year Model. The summary of basic information in the Base Year Model will be used as the benchmark for the key assumptions such as the composition of the bargaining unit and the number of FTEs, the total number of courses delivered by bargaining unit members, and the weighted average base salary.

Summary of basic information

Reference period		Snapshot date	
Full-time employees		Total annual base salary costs	
Part-time employees			
Headcount (HC)		Average annual salary per HC	
Full-time equivalents (FTE)		Average annual salary per FTE	
Total courses (credits) delivered			
Average courses (credits) per FTE		Average salary per course	

The summary of base year costs are used as the base year values in the last two Excel-based templates titled, "Impact of collective agreement" and "Summary of changes." The mechanics of calculating the cost impacts of collective bargaining proposals follows a systematic process for each change in compensation:

1. Calculate the cost impact of a general wage increase to the base wage
2. Calculate the roll-up of wage-related benefits
3. Calculate new and ongoing cost increases associated with changes to benefits
4. Calculate any new cost increases associated with one-time changes to benefits
5. Calculate the cost impact of ongoing benefit reductions
6. Calculate the cost impact of one-time benefit reductions

These calculations are organized on the worksheet template titled, "Impact of collective agreement."

General wage increase	Flat rate Percentage					
	Base Year	Year 1	Year 2	Year 3	Added to base	
Base salary					**Total**	**%**
Total base salaries						
Salary-related benefits						
Sub-total (salaries & salary-related benefits)						
% Increase to salaries and salary-related benefits						
Proposed benefit changes						
Ongoing benefit enhancements						
Individual proposal 1						
Individual proposal 2						
One-time benefit enhancements						
Individual proposal						
Ongoing benefit reductions						
Individual proposal						
One-time benefit reductions						
Individual proposal						
Sub-total (annual benefits changes)						
Cash flow (new money)					**Total added to base:**	
% Increase					**% Added to base:**	

Calculating & Reporting Costs from Multi-Year Proposals

There are two main ways to report costs associated with multi-year collective bargaining proposals:

- Cash flow (New money); and
- % increase (End rate).

The cash flow method of reporting costs reflects the estimated amount of money needed to pay the costs associated with the collective bargaining proposals. Cash flow is determined by the timing of the cost changes, but it does not distinguish between increases in the base rate and one-time or lump sum payments. For this reason, the cash flow method of reporting provides important financial information, but does not reflect structural changes in compensation.

The monetary value of cash flow associated with ongoing changes in the base compensation rate is reported separately to emphasize the compounding costs associated with ongoing changes in the base compensation rate.

The changes "added to the base" reflect the structural changes in compensation and the ongoing cost impacts of those changes. The cumulative change to the base indicates the percent change to the salary-related base rate over the term of the collective agreement. This "end rate" method illustrates the ongoing, out-year cost impact. The two reporting methods provide slightly different, but important information.

Calculating the Costs of Multi-Year Proposals

In multi-year collective agreements, increases to the base pay ***compound*** over the life of the agreement. That is, an increase this year becomes the "new base pay" upon which next year's increase is calculated, and this process is repeated for each year of the collective agreement. The result is that, in each future year, the percentage increase is applied to a higher base amount.

Consider an example that illustrates the power of compounding pay increases. In this example, we consider a 3-year contract, where the proposed annual increases in each successive year are: 2%, 2% and 3%. In this case, the overall increase in wages calculated over the entire three-year agreement is slightly *more* than 7 per cent.

While the effect of compounding may appear small – just a few cents on the dollar – the impact of compounding at the aggregate level of the bargaining unit can be significant for an organization.

To further illustrate, using our example, suppose that we have 150 employees earning an average annual salary of $115,000, initially. The estimated annual wage bill cost when compounding is *not* accounted for over the term of the collective agreement is almost $11,000.00 less than the actual cost incurred when the compounding is included. Of course, in this example, we are only illustrating the effects of compounding on straight wages; but the compounding principle applies to all wage related costs that escalate over the term of the contract.

Example – Compounding wage increases
A university or college employs 150 academic staff with an average annual salary of $115,000. The bargaining proposal is for a three-year agreement with annual base increases of 2%, 2%, and 3%. The total percentage increase over the three-year agreement would be 7.16%, (not 7%).

	Base period	Year one	Year two	Year three	Total increase
Contract % increase		2%	2%	3%	**7.16%**
Annual average salary	$115,000	$117,300	$119,646	$123,235	**$8,235**
Total annual salary mass of 150 staff	$17,250,000	$17,595,000	$17,946,900	$18,485,307	**$1,235,307**
Cost if calculated at only 7%					**$1,207,500**
Annual difference accounting for compounding					**$27,807**

Costing Base Salary Increases

In the row titled "General salary increase," input the value of the annual across-the-board (ATB) salary increases. The template calculates the impact of the general salary increase to the average salary and to the costs of the base annual wages. Next, the template applies the roll-up to salary-related benefits. Sub-totals for the annual salary and salary-related benefit costs based on the proposed ATB are presented as well as the cumulative percent change to the salary-related base. Non salary-related benefits do not change as a result of any changes to the base wage rate. Therefore, base year and the on-going out-year costs of the non salary-related benefits will be constant and not reported in this section of the template. Changes to benefits are calculated in the next section of the template.

Costing Changes in Benefits

Calculations of the cost impacts of changes in benefits, both salary-related and non salary-related, focus on "new money." The base year values of salary-related and nonwage-related benefit costs are already reflected in the Base Year Model as part of the employer's ongoing benefit costs. The calculation of the changes in benefits therefore focus on the cost differences from the base year for each

Ongoing or one-time changes to benefits are calculated based on information for each component of compensation in the Base Year Model. Changes can represent either increases or reductions in the costs of benefits. The following steps reflect the general process for calculating the costs of benefit changes for individual proposals. Note that certain benefits will require intermediate calculations – steps unique to a particular benefit or bargaining proposal.

1. Use a separate row for each proposed change to individual components of compensation.
2. Determine whether the proposed change represents an ongoing or one-time change to compensation.
3. Determine whether the proposed change involves a wage-related or nonwage-related benefit.
4. Calculate the difference between base year costs and the proposal.
5. Identify the impacted years. (For example, a benefit improvement may not take effect until year 2 of a three-year proposal.)
6. If the benefit is wage-related, you will need to apply the roll-up over the impacted years based on the cost difference from the base year.
7. Sub-total individual proposals into the respective ongoing or one-time benefit change categories.

For example, a set of proposals, which include five (5) changes to benefits, would be organized in the following manner based on whether the changes were ongoing or one-time, enhancements or reductions.

Cost differences in changes from base year (New money)		Salary-related	Year 1	Year 2	Year 3
Change #1					
Change #2					
Change #3					
Ongoing benefit enhancements	1 + 2 + 3				
Lump sum bonus					
One-time benefit enhancements					
Change in sick days		Yes			
Ongoing benefit reductions					
One-time benefit reductions					

Module – Costing Employee Rights in the Collective Agreement

Academic unions strive to secure a range of employee rights in the collective agreement. While most of these rights may not have a direct monetary component attached to them as an element of compensation, such rights may have a significant impact on the Base Year Model and overall compensation cost structures at the university or college. The intersection of employee rights and operational functions shape the compensation cost structure at the institution.

When & How to Cost Employee Rights

Whenever a collective bargaining proposal will change the underlying assumptions of the Base Year Model, that proposal should be costed. In other words, if the composition of the bargaining unit or the average number of courses delivered per employee changes, the union should estimate the cost impacts. Often, the estimates regarding the nature and extent of change will have to be inferred from the bargaining objectives. For example, bargaining proposals to increase the opportunities of contract academic to convert to continuing appointments may shift the composition of the bargaining unit towards more continuing appointments. In such a case, the cost impact would equal the marginal increase in the average cost per course by moving a greater share of the courses delivered to continuing employees.

The process for estimating the cost impacts of proposals to strengthen employee rights should begin with a careful examination of how these rights will impact the composition of the bargaining unit and operations of the institution. Once the new assumptions are modelled, costing should focus on the marginal cost increase or 'new money' required to pay for the enhanced rights. The following steps outline the process for costing new employee rights:

1. Estimate the operational changes resulting from the proposed language on employee rights. Think through the various ways in which the increased rights might change operations, alter the composition of the bargaining unit, constrain management rights, or introduce new potential sources of compensation.
    a. Do these rights change the composition of the workforce? What is the best estimate for the new configuration for the distribution of work across employee classifications?
    b. Do the rights change access or eligibility for insured benefits or other components of compensation not previously available to that employee group?
    c. Do these rights introduce new termination or separation costs? Estimate how many employees would likely be eligible for these new payments. For example, to cost the introduction or extension of the notice period for course cancellation compensation, the costing model would have to model an assumption for the number of employees eligible for this benefit.
    d. Do these rights increase paid or unpaid leaves? (See module on changes to paid and unpaid leaves.)
    e. Many rights have no direct cost impact but may impose significant transaction costs for managing the new work rules. While the administration may certainly consider these costs in their operational budgets, costing for collective bargaining is focused on compensation and should not attempt to estimate these costs.
    f. Individual rights, such as grievances resolved during the course of negotiations, would generally not be costed unless the settlement is used as a precedent for interpreting broader application of rights under the collective agreement. However, whether these costs are included as part of the newly negotiated terms of the collective agreement, or the clarification of previous rounds of bargaining, will depend on the settlement terms.

2. Focus on estimating the marginal cost difference between the benchmark from the Base Year Model and the new costs based on changes in the model's assumptions.
   a. To calculate the marginal cost differences, focus on the average total compensation cost per course.

Administrative Resistance Despite Cost Neutral Employee Rights

Administrators will generally resist efforts to expand employee rights, even if the costing model demonstrates that the changes would be cost neutral. This limitation of costing reflects the importance and value administrators place on management rights and the exclusive authority to manage the operations of the enterprise. Invariably, employee rights create operational constraints that will add to the administration's transactions costs in managing and running the institution. However, even these costs are less important than the right to manage and control the operations. The role of costing has limitations and does not substitute for the importance of bargaining power when negotiating the expansion of employee rights.

Workload Standards

There are two models for bargaining workload standards. First, centrally bargained standards enshrine the key provisions of the workload standard in the collective agreement. Second, an alternate model ascribes the responsibility for setting the terms of workload standards to individual faculty units or departments. This alternate model may retain collegial mechanisms for the creation of workload standards, but often have some form of administrative input.

For the purposes of costing, the normal teaching load established by workload standards has the most direct and important implications for operational assumptions and costing estimates. Other features of full-responsibility faculty appointments, such as research productivity and service, do not have the direct and clear link to operational costs.

Changes in the normal teaching loads defined in workload standards have significant implications for the cost impact for collective bargaining proposals. We can see the impact by using the simple formula of one faculty member teaching one term length course reflects one unit of labour producing one unit of teaching output. Reducing the normal teaching load from 3 – 2 down to 2 – 2 results in a 25 percent increase in the relative cost of the unit of labour. In the first workload model, 20 faculty members could produce 100 courses. Under the reduced workload model, the university or college would need 25 faculty members to produce the same level of teaching output.

Module – Costing Faculty Complement

While language proposals regarding faculty complement are often included in the 'non-monetary' package of collective bargaining proposals, such changes have the potential for significant impacts on the cost structure of compensation. This is because changes to complement, typically union proposals to increase the number of academic staff to handle the existing workload, can significantly change the operational assumptions of the Base Year Model.

For example, caps on course enrolments will generally require the university or college to offer more courses and hire more academic staff even if the size of the student body remains constant. In operational terms, it will take more labour to deliver educational services to the same number of students.

The cost impacts of other strategies for protecting faculty complement may not include such clear and direct increases to the total labour costs. For example, benchmarking ratios, or collective agreement language requiring the administration to maintain student–faculty ratios with a certain band or at a set historical target would appear to be cost neutral. In some ways, such proposals seek to standardize and hold constant the existing operational assumptions.

Again, administrative resistance to such proposals reveals the limitations of costing and rational, cost-based collective bargaining procedures. Administrators, like managers in any sector, will vigorously defend their unilateral rights to manage operations. Managers in any workplace setting constantly strive to increase efficiency and productivity in operations by controlling the work process.[32] Collective agreement language regarding faculty complement, even seemingly cost-neutral language on the maintenance of student-faculty ratios, fundamentally challenge these management rights.

32. For a discussion of employer strategies and behaviours, see chapter 6, Godard, John. "Understanding and Explaining Management", *Industrial Relations, the Economy, and Society*, Captus Press, 2011.

This also highlights another limitation of costing and modelling new assumptions based on past operational strategies. Employers, and that includes university and college administrators, will often actively change operational strategies to mitigate or escape the costs associated with these constraints. While costing the projected impacts of changes in complement or workload is necessarily limited to increasing current labour inputs, the final result will likely involve more substantial changes to work organization to reduce current cost structures.

Costing Language on Faculty Complement

The procedure for estimating the costs associated with a proposal regarding faculty complement begins with examining the existing assumptions in the Base Year Model and assessing how faculty complement language might alter these assumptions. Next, a series of probing questions can explore how language on complement might impact labour cost structures at the institution.

1. How does the proposal on faculty complement impact the number of academic staff needed to carry out the current operations of the university or college?
    a. To calculate the total annual costs associated with increasing the composition of the bargaining unit, multiply the number of additional positions by the average annual cost per FTE.
    b. The longer-term effects of this language are more difficult to cost as it constrains the administration's simplest strategy for increasing labour productivity – increasing enrollments while keeping the faculty complement constant or reducing the complement over time. Since this will likely be the greater concern from management's perspective, it is important for the union to explore potential reactions and unintended consequences of language on faculty complement.
2. Are there other teaching delivery mechanisms or technologies that the administration can implement to increase productivity without triggering the language on complement?
    a. Recent arbitration decisions, including some involving the university and college sector, have shown the difficulty in protecting the work of the bargaining unit for academic staff unions.[33]

Negotiating commitments to hire additional academic staff are notoriously slippery given management's residual rights to control the operations of the institution, including determining hiring practices, the number employees, what courses to offer and how the courses will be delivered. Such proposals may have important strategic and symbolic significance for the academic staff union, but since negotiated commitments to hire additional staff do not change the underlying assumptions, costing such proposals is not necessary.

Module – Costing Changes to Paid & Unpaid Leaves

Jurisdictions across Canada have enacted a number of new extended leave provisions in the past several years. For example, most jurisdictions now provide statutory leave protections for survivors of domestic violence.[34] In many cases, the expansion of leave rights to the general workforce through employment standards legislation follows gains by academic staff and other unions at the bargaining table. Estimating the cost impacts of negotiated leaves involves direct and indirect compensation costs as well as operational considerations of the assumptions built into the Base Year Model.

For most academic staff, conventional paid leaves such as statutory holidays and vacations provide important personal value individually, but are not generally considered a factor in post-secondary operations or costing practices. Indeed, many academic staff association collective agreements do not reference these conventional forms of paid leave.

However, term length or full-year academic leaves are a central feature to academic staff compensation and present more complex considerations for costing. Associations can legitimately argue that paid leaves do not constitute paid time off, but rather shift the focus of productive activities from teaching to research. However, changes in paid academic

33 . For a discussion of work protection cases, see Willis, Elaine and Warren Winkler. *Willis & Winkler on Leading Labour Cases*, ed. Thomson Reuters Canada, Thomson Reuters, 2015. Chapter 2, in particular, the discussion of the cases Athabasca University Governing Council and CUPE, Local 3911 (Employee Status), Re (2012), 224 L.A.C. (4th) 1, 112 C.L.A.S. 273, 2012 CarswellAlta 1775, [2012] A.G.A.A. No. 55 (Sims, Ross, Furlong), 244 L.A.C. (4th) 1, (sub nom. CUPE Local 3911 v. Athabasca University) 2014 C.L.L.C. 220-040, 240 A.C.W.S. (3d) 456, 2014 CarswellAlta 782, 2014 ABQB 292 (Alta. Q.B.) demonstrates the difficulty academic unions face when trying to control the various forms of instructional work at universities.

34 . For a review of domestic violence leave legislation see http://makeitourbusiness.ca/blog/most-canadian-provinces-are-providing-domestic-violence-leave.

leaves do pose new costs to administrators when replacement instructors or substitute librarians are needed to perform the teaching related duties of the staff member on leave.

Replacement Costs for New Leave Provisions

Existing leave provisions do not require special treatment under this costing method.[35] The Base Year Model assumes the operational characteristics of the institution and the composition of the bargaining unit will remain relatively stable in the short term. The composition of the bargaining unit last year, including the number of academic staff on various types of leaves, will be similar to the composition over the next few years. The number of staff working during this reference year included those needed to cover for those on leave. Similarly, the operations of the institution, especially the number or courses delivered and other academic work performed by the bargaining unit will also remain relatively stable.

Existing leave provisions are already accounted for in the Base Year Model. However, the costs associated with new leave provisions will depend on a number of factors with the replacement cost ratio being the central factor in the estimate. In theory, replacement costs can vary widely. At one end of the scale, the university or college may experience actual savings when a high-salary academic employee takes an unpaid leave and no replacements are hired to teach those courses or take on their responsibilities. In contrast, paid leaves requiring full replacements, such as hiring more regular, full-time academic staff, may result in a replacement cost ratio that is equal to a factor of one or more. In other words, for each bargaining unit member taking a paid leave, another person has to be hired to do the work. Compensation costs are twice as much for the same amount of work.

Costing Unpaid Leaves

By definition, employees do not receive salaries during unpaid leaves, but such provisions may still impose costs to the employer. Strategically, if the union is simply introducing new, statutory leave rights into the collective agreement, these should not be costed by the union as they do not reflect new rights or benefits requiring a negotiated settlement. The law already requires the employer to provide these employment standards, so any associated costs would not be the result of collective bargaining.

However, if the union is seeking to secure a greater right or benefit, above the statutory minimum for unpaid leaves, or a new type of leave not mandated by statute, it would be useful to assess the proposal for potential cost impacts. The following steps provide a method for estimating compensation and other labour costs associated with negotiating unpaid leaves.

1. Does the ‘unpaid’ aspect of the leave include both salary and benefits?
    a. First, clarify whether the unpaid leave provision requires employees to assume responsibility for paying the employer’s share of benefit costs to maintain insured benefits, accrue pension credits, or maintain other forms of compensation during the leave.
    b. If the employer does still carry the benefit costs of the employee during the unpaid leave, include these costs in the estimate.
2. How many members of the bargaining unit will be eligible to take the unpaid leave? How many are likely to actually request the leave if they are eligible?
    a. It can be very hard to predict the actual take up of unpaid leaves and this estimate becomes less relevant if the administration retains final authority to approve the leave. Still, the union should provide a reasonable estimate for the number of employees eligible and the number likely to take the unpaid leaves.
    b. Unless there are reliable indicators to suggest otherwise, the costing model should assume that everyone eligible will take the leave.
3. How will the leave impact operations in general and course delivery in particular?
    a. Assuming that the overall number of courses offered by the university or college will remain relatively stable despite changes in individual leave status, who will perform the work? The institution or academic department may elect not to offer the particular course taught by the staff member on leave, but the costing model works at the aggregate level where the total number of courses offered will likely be more stable.

35. Other costing methods such as Granof, Michael H., Jay E. Grenig, and Moira Kelly. *How to Cost Your Labor Contract, 2nd ed.*, BNA Books, 2011., distinguish between the cost of pay for time worked from the costs associated with pay for time not worked.

4. Estimate the replacement cost ratio:
   a. For unpaid leaves, which do not require the employer to maintain any benefits, replacement costs may be fully offset by the forfeited compensation.
   b. Unpaid leaves in which the employer continues to make benefit payments may have a fractional replacement ratio because the costs of hiring a replacement are not fully offset by the saved compensation.
      i. Estimate an appropriate replacement ratio. For example, if employer benefit costs are 20 per cent of total compensation, the replacement ratio would be an additional 0.20 cost in the compensation structure based on the estimated number of staff taking the leave or courses requiring replacement.

Paid Leaves

Enhancing paid leaves has an effect similar to increasing the composition of the bargaining unit – it will take more employees to perform the same amount of work. In the postsecondary sector, short term paid leaves, such as paid bereavement leave or other paid leaves lasting 5 days or less, impose a cost on the university or college, but are not factored as changing the assumptions of the Base Year Model since they are unlikely to result in replacement costs. A class session or lab may be cancelled, but the department will not hire such a short-term contract academic employee.

New paid leaves resulting in new replacement costs, or proposals to enhance existing paid leave provisions should be costed by examining their impact on the Base Year Model. The costing method is very similar to unpaid leaves.

Costing Proposals for New Paid Leaves

1. Once again, estimate how many members of the bargaining unit will be eligible to take the paid leave.
2. Model how replacements will be managed based on current operations and estimate the replacement cost ratio.
   a. For paid leaves, the estimate for replacement cost ratios should not be less than a one-for-one, or full replacement ratio. For every academic employee eligible for the leave, the institution will have to hire an additional employee to perform those duties.
   b. Multiply the number of academic staff eligible for the new leave benefit by the average total annual compensation per FTE in the bargaining unit. Alternately, the estimates could be based on the number of courses and the average cost per cost per FTE.

Costing Proposals to Enhance Existing Paid Leave Provisions

Existing paid leave provisions can be enhanced along two dimensions – compensation and time.

1. Collect information about the number of academic employees taking the paid leave during the reference year. Unless the proposal is changing the eligibility requirements, these experience data will provide a better cost estimate than the number of employees eligible.
2. For compensation only enhancements, multiply the number of employees taking the leave by the value of the compensation enhancement.
   a. To calculate the value of a salary-related enhancement, use the weighted average total compensation for the bargaining unit.
   b. For flat rate benefit enhancements (non salary-related), simply multiply the number of employees on leave by the value of the benefit enhancement to estimate the total annual cost increase associated with the proposal.
3. For enhancements in the amount of leave time, calculate the replacement costs the same way as new leave provisions. Pro-rate replacement costs for partial years or calculate based on course replacements.
4. Enhancements along both dimensions (time and compensation) require a two part calculation.
   a. First, estimate the cost of the compensation enhancement for the member on leave for the entire proposed leave period.
   b. Second, estimate the replacement costs for the enhanced time of the leave. Again, this should be pro-rated for partial year leaves or based on course replacements.

Costing Equity of Leaves Which are Dependent on Administrative Approval

Union bargaining teams generally strive to ensure that academic staff eligible for various forms of leave are not unfairly denied the opportunity to take such a leave. However, there are many examples of administrative discretion for approving paid and unpaid leaves in academic staff collective agreements. The equity function of costing can be used to help ensure that administrative discretion does not result in disparate treatment of bargaining unit members.

During the data collection phase for bargaining preparations, the union should include requests for information related to academic staff on leave.

1. A list of the number and type of leave requests approved by the administration in the past 12 months. For each leave request approved, include the following information:
   a. Whether the leave was paid or unpaid for both salary and benefits.
   b. Length of the approved leave period.
   c. Identity of the bargaining unit member and department.
2. Identify the number, the type of leave, and the reason for leave requests denied by the administration in the past twelve (12) months. For each leave request denied, include the following information:
   a. Whether the leave request was for paid or unpaid for both salary and benefits.
   b. Length of the leave period requested.
   c. Identity of the bargaining unit member and department.

To improve the reliability of information, the union should independently track leave requests by encouraging members to share the original leave requests with the union and ask that the administration's response be made in writing and also sent to the union. Such procedures or annual reporting can be outlined in the collective agreement. Analysis of this information can identify patterns in denials and approvals and be used to advance equity in administrative approvals of leaves.

Collective Bargaining Scenarios

This section briefly reviews the application of using the Base Year Model to cost a range of typical collective bargaining proposals. For a complete case example of gathering information, developing the Base Year Model, and using the Base Year Model during negotiations, please see Section 5 – Great Northern University.

Proposals for Multi-Year Across the Board Increases to Base Salary

A common and relatively straight forward collective bargaining proposal involves multi-year, across the board (ATB) increases. These are base salary increases which are applied "across-the-board," meaning that the increases impact base wages for all job classifications, wage steps, and other designated base salaries.

There are two types of ATB increases:

1. Flat rate
2. Percentage

Flat rate increase

Proposal for annual ATB wage increases of $1,000 - $1,000 - $1,500

To "roll-up" the wage-related benefits based on flat rate increases, the template formula converts the flat rate increase into a percentage increase and applies the cost roll-up to wage-related benefits.

General wage increase	**Value**	$1,000	$1,000	$1,500	$3,500
Base salary	$85,000	1.17%	1.16%	1.72%	
Annual costs	**Base year**	**Year 1**	**Year 2**	**Year 3**	**Cumulative total**
Total annual base salary		$86,000	$87,000	$88,500	$3,500
Salary-related benefits	$25,000	$25,425	$25,832	$26,276	$1,276

Percentage increase
Proposal for ATB percentage wage increases of 1.5% - 1.5% - 2.25%

For increases to the base wage based on percentage across-the-board, increase the template first accounts for the compounding effect over multiple years. The template then applies the roll-up impact of a percentage increase to wage-related benefits.

General salary increase	**Value**		1.5%		1.5%		2.25%		5.34%
Base salary	$85,000								
Annual costs	**Base year**		**Year 1**		**Year 2**		**Year 3**		**Cumulative total**
Total annual base salary			$86,275		$87,569		$89,539		$4,539
Salary-related benefits	$25,000		$25,375		$25,755		$26,335		$1,335 (5.34%)

One-time lump sum bonuses
Lump sum payments and similar proposals should be included in the one-time benefit change category. For example the following steps can be used to calculate the cost impact of a $750 lump sum payment (pro-rated for part-time employees) in lieu of wage increases in years one and two:

1. Determine the number of employees eligible for the bonus;
2. Calculate total annual costs for the new benefit; and
3. Record these costs only in the year in which they occur.

Value		$750		$750				
		Year 1		**Year 2**		**Year 3**		**Cumulative total**
One-time benefit enhancements								
(Lump sum payment)	**Full-time**	$62,250		$62,250		$0		
	Part-time	$30,750		$30,750		$0		

Changes to Insured Benefits
To calculate the cost impact of proposals to improve dental and vision plans, follow these steps:

1. Contact the insured benefits consultant or broker to estimate increases to premium rates. (Note, the employer's insurance carrier would provide the most accurate estimates of premium changes, but that information may be difficult to obtain through the employer. Simultaneous requests to the employer and an independent broker would allow a valuable, independent assessment of the information provided by the employer. Even if the union is not proposing any changes to insured benefits, the union should request information from the insurance carrier regarding costs associated with maintenance of benefits.)
2. Calculate a new weighted average premium for insured benefits with different single and family rates.
3. Calculate the difference between the new weighted premium rate compared to the base year premium rate.
4. Calculate the total annual cost increase or decrease. (Be sure to use only the number of employees eligible for insured benefits in this calculation.)

This change would result in ongoing costs, so the line item for this compensation change would be included under "ongoing benefit enhancements."

Changes in Paid Leave Time
Employers which experience replacement or backfill costs associated with paid leave time will need to calculate the replacement cost impact of proposals to change paid leave provisions in the collective agreement. For example, the following steps should be used to calculate the cost impacts of a proposal for a change in workload for the entire bargaining unit:

1. Determine the replacement ratio (the best cost estimate will be the conservative assumption replicating the appointment type);

2. Estimate the change in the number of replacement courses;
3. Calculate the per course cost based on the replacement ratio; and
4. Calculate the change in total annual cost for each year of the proposed collective agreement.

Changes in paid leave reflect changes to the benefit cost structure and should be included as part of the category of "ongoing benefit changes."

Paid leave replacement costs							
Change in paid leave	***Replacement ratio***	**Courses year 1**	**Cost year 1**	**Courses year 2**	**Cost year 2**	**Courses year 3**	**Cost year 3**

Changes in Allowances & Other Benefits

Proposals to change allowances can involve ongoing or one-time benefit changes. To calculate the cost impact:

1. Determine whether the proposal involves ongoing or one-time changes.
2. Calculate the difference between the proposed allowance and the base year for that benefit. (For new allowance benefits, this would include all costs associated with the change.)

Summary of Changes

The individual line item calculations for each proposed change to benefits are summarized depending on whether they are ongoing or one-time, enhancements or reductions. Ongoing benefit enhancements result in changes in the base compensation structure and will therefore be included as a change added to base compensation and calculated as part of the percent increase to base compensation.

At the bottom of the template, the line titled "Cash flow (New money)" reports the total annual amount of money the proposed collective agreement will cost the employer. This cash flow is expressed in percentage terms on the last line of the template. In the far right hand column of this template, the total cost impact of changes added to the base report the ongoing structural changes to compensation.

Reporting the Cost Impacts of a Tentative Agreement

Most negotiating teams will need to report the cost impacts of a tentative agreement to a Board of Directors or other governance authorities in the organization for approval. The template worksheet titled, "Summary of changes," provides a tool for reporting such information.

					Added to base/End rate	
	Base year	**Year 1**	**Year 2**	**Year 3**	**Total**	**%**
Salaries						
Salary-related benefits						
Benefit enhancements						
Benefit reductions						
Nonwage-related benefits						
ESTIMATED TOTAL COMPENSATION						

It is important to note that base year non salary-related benefits are assumed to remain constant over the life of the proposed collective agreement. Any proposed changes are reflected in the rows for benefit enhancements and benefit reductions. To account for any operational changes which may impact the costs of non salary-related benefits, the negotiating team will need to estimate changes in the composition of the bargaining unit or workload of academic staff. It is important to clearly explain how the changes in assumptions result in the cost estimates to constituents and governance boards.

Part 5: Great Northern University – A Fictional Case Study of Costing

Quick Reference – Part 5 Summary

This section presents a step-by-step example involving a fictional case of the Great Northern University Academic Staff Association (GNUASA). The case draws upon a mock collective agreement (Appendix C) and discusses the steps reflected in associated templates.

GNUASA represents a full range of appointment types, includes tenure stream, teaching stream, continuing, and contract academic staff. Based on the review of compensation and operational characteristics, three distinct Base Year Models were developed to account for differences between the appointment types.

The case demonstrates the application of procedures outlined in the costing manual and use of the templates. Common problems and challenges are highlighted with suggested strategies for working with the available information. The case example concludes with a mock bargaining scenario comparing the cost estimates for the union and employer proposals.

The Great Northern University Academic Staff Association (GNUASA) is beginning to prepare for the next round of collective bargaining. The current collective agreement is set to expire in six months and several developments have made the bargaining environment more challenging for GNUASA. First, the provincial government recently announced plans to pass legislation to limit compensation increases in the university sector to one (1) per cent per year. This is in addition to a variety of cuts and roll-backs of post-secondary education sector funding and a freeze on the level of government transfer payments projected for the next three years.

Second, the administration of Great Northern University (GNU) recently adopted an activity-based budgeting strategy supported by an array of private sector management consultants. The administration's reports to the Board of Governors have focused on financial management and the need to "recalibrate" the labour relations environment at GNU in order to constrain costs.

Third, there is increasing frustration among GNUASA members that the administration is ignoring equity concerns on campus and the implementation of activity-based budgeting has had a disproportionally negative impact on Indigenous faculty working in the Languages and Cultures department as well as the School of Nursing.

As the bargaining team solicits input from the membership and meets with the executive to establish the mandate, they discuss the bargaining environment and decide that costing their proposals and the employer's counter-proposals is strategically necessary. If negotiations require conciliation or they are forced into interest arbitration, their capacity to model total compensation and accurately defend the costs associated with their key priorities will be critically important. Even if negotiations do not go to arbitration, their ability to assess employer claims and proposals independently will be especially important in the current environment.

Step 1 – Identifying Components of Compensation

The ability to cost proposals during bargaining builds on the preparations of modelling total compensation in a Base Year Model. The first step of the process begins by reviewing the terms of the collective agreement. Selected excerpts of the relevant articles in the mock collective agreement between GNU and the staff association are included as Appendix C. The members of the union's costing team record notes and specific references to all forms of compensation in Step 1 of the costing template, "Elements of Compensation."

1. Identify each component of compensation.
2. Review each category of compensation in the template and take notes:
   a. Is the benefit salary-related?
   b. How does compensation differ by appointment type?
   c. What additional information is needed to calculate the total annual cost for this component of compensation and what is the best source for that information?

Using the total compensation guide in Step 1 of the costing template, the negotiating committee members identified the following components of compensation.

Wage-Related?	Component of compensation	Source	Information & notes
Basic wage information			
	Base salaries		·Base salaries (Assistant floor) Article 18. $68,250 ·Continuing Base ·Contract academic staff per course stipend
	Salary step grid / Salary model		Article 18
	Appointment types / Classifications		Article 2 Recognition
	Merit pay		Article 18 - Merit pool = FTE x $500
Workloads & premiums			
	Regular full-time teaching load by appointment type		Specific provisions for workload set at departmental level. The general workload for tenure stream faculty is 2-2, or the equivalent number of credits.
	Regular FTE formula for contract academic staff		0.5 FTE for normal workload.
	Overload premium(s)		$10,000 per 3-credit course
	Administrative stipend(s)		$10,000 minimum subject to negotiations.
Flat rate Not salary-related	Other premiums		- Years of experience and class size premiums for CAS. Need breakdown of large course premiums and years of experience for CAS. - Course cancellation fees for CAS.
Benefits			
	Eligibility		Tenure stream and continuing only. (CAS not eligible.) Employee must have 0.51 FTE or greater.
	Benefits general		CA specifies maintenance of current benefits in the group benefit plan. 100% employer paid. Need information about premium rates.
	Long-term disability, optional life, and ADD.		100% employee paid.
	Child care		Pool of $350,000
	Tuition support		Pool of $650,000
Pension benefits			
Salary-related	Employer contribution rates		< YMPE = 9%, > YMPE = 11% match but subject to higher rates based on actuarial valuation.
Statutory benefits			
Potentially salary-related	Employment Insurance, Employer Health Tax, Canada Pension Plan, Workers' Compensation		No reference in CA. Need total annual paid on behalf of bargaining unit.
Allowances			
Not salary-related	Professional expenses		Tenure stream and continuing appointments eligible (not CAS). $2,000 maximum claim pro-rated based on FTE.
Child care			Individual maximums and total pool cap ($350,000).
Tuition			Individual maximums and total pool cap ($650,000).
Other			
	Other		
Post-employment benefits			
	Severance		
	Retiree benefits		Not in collective agreement

Based on this initial review of the compensation structure, it seems likely that splitting the costing models by appointment type will be appropriate. This decision may not be confirmed until the costing team reviews the operational assumptions. Specifically, if the workload structures of the appointment types are also significantly different (e.g. normal teaching loads), then distinct Base Year Models would be appropriate.

Step 2 – Preparing the Information Request Letter

Based on the notes from the first step of identifying each component of total compensation, the costing team drafted an information request letter to the employer. The costing team had three basic objectives for the information request:

1. Information needed to calculate the total costs of salaries and benefits;
2. Information about the composition of the bargaining unit; and
3. Information about the basic operations of the institution.

In drafting the information request letter, the team requested concise but detailed information about each component of compensation. The union's information request letter explained the purpose of the request, the relevance to collective bargaining, and the preferred format to receive the information.

Employer Response

The willingness of employers to provide the union with the information requested will vary by institution based on the bargaining history and labour relations climate. Since the GNUASA does not have a history of submitting information requests of this scope, and their collective agreement does not require the employer to provide annual information about the bargaining unit, obtaining the requested information required a good bit of back and forth. GNUASA repeatedly emphasized that the information was required for the union to engage in collective bargaining with the university.

The faculty relations office at GNU continued to object to the scope of the request and the ability of the university to provide information in the format requested. For example, an employee database including all of the fields requested by the union would require the university to match individual-level data across several information systems. To fulfill the request as stated, the university would charge the union "at least $75,000 for the staff time required to collate the information." The GNUASA referenced the flexibility expressed in the original request letter and described how the university could satisfy the request by providing global information about total annual costs, teaching workloads, and other operational practices.

In the end, the union did not get everything requested, nor did the union get all the information in a format that could be easily incorporated into the costing template. However, the union did receive sufficient information about the total annual costs for each component of compensation and about the operational assumptions needed for the Base Year Model. The full text of the employer's response is included in Appendix E. The Employer provided academic staff database without many of the fields requested by the union. The following table presents a sample of the database. A complete version of the employer's database is included in the GNU case templates.

Academic employee database				
Employee ID	**Job class**	**FTE**	**Regular workload**	**Base annual salary**
100088	Tenure stream	1.0	3.5	$147,748
101107	Tenure stream	1.0	3.5	$153,937
103371	Tenure stream	1.0	3.5	$155,290
105134	Continuing	0.2	2.0	$25,600
105664	Contract academic staff	NA	1.0	$8,000
106441	Tenure stream	1.0	3.5	$169,503
107264	Contract academic staff	NA	1.0	$8,000
107705	Tenure stream	1.0	3.5	$166,155
108636	Contract academic staff	NA	1.0	$8,200
108983	Continuing	1	10.0	$128,000
109355	Contract Academic Staff	NA	3.0	$24,000
109570	Contract academic staff	NA	2.0	$16,000
110592	Tenure stream	1.0	3.5	$165,537
110595	Contract academic staff	NA	1.0	$8,000
110965	Continuing	1	10.0	$128,000
111388	Tenure stream	1.0	3.5	$101,172
111575	Continuing	0.4	4.0	$51,200
112159	Tenure stream	1.0	3.5	$116,113
112182	Contract academic staff	NA	1.0	$8,000
112262	Contract academic staff	NA	1.0	$8,000
112519	Tenure stream	1.0	3.5	$118,045
112583	Tenure stream (Teaching-focused)	1.0	6	$105,862

Step 3 – Employee Database

There were a number of problems obtaining the requested information in a database format. First, individual instructor teaching activities (how many courses, which courses, and the proportion of responsibility) are not stored with other personnel information, but in the registrar's course information system. In fact, the university's IT department could not easily amalgamate that information at the individual level. The university was able to provide the average number of courses taught on a global level for the tenure stream faculty (3.5 per year) and the proxy estimate for continuing faculty based on their recorded FTE designation.

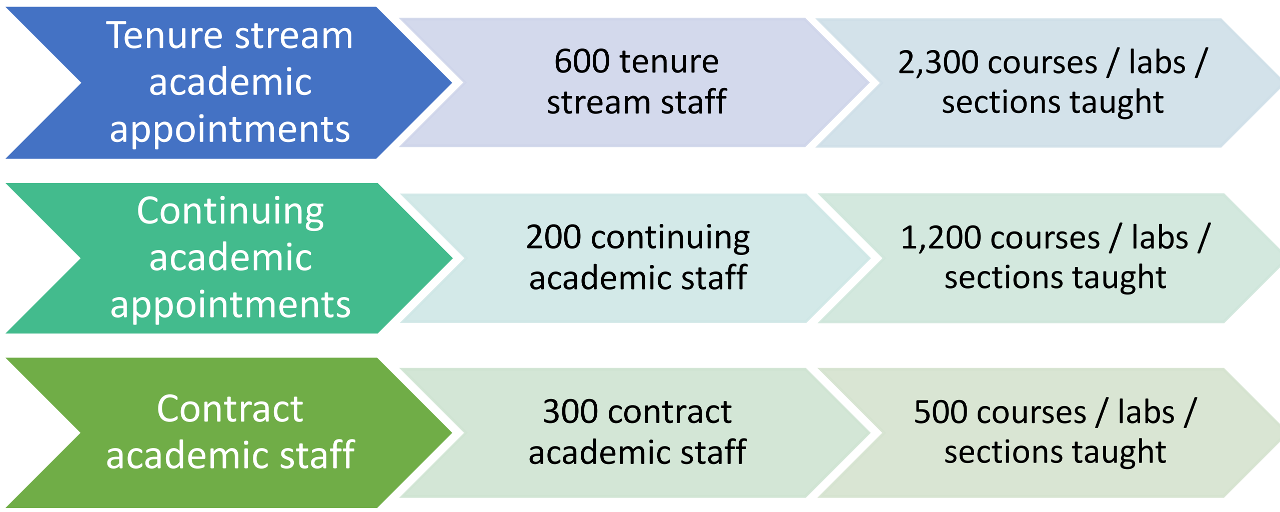
Second, merit awards are integrated with PTR in the payroll system, so the database could not generate a distinct column for merit in the database provided by the university HR department. The total pool available for merit was awarded and these increases are added to base salaries and reflected in the database.

For contract academic staff, various premiums such as attributed years of experience and class size premiums could not be separated from the base salary information. Note that in the collective agreement, years of experience for CAS does not refer to calendar years of tenure, but rather a formula of teaching credit based on the number of courses taught over time. As an alternative to the individual-level data, the union decided it could use global operational information about these premiums. In the current case of GNU, some of the premiums identified in Step 1 will require intermediary steps to separate them from the base salary.

Clarifying the Operational Assumptions

Great Northern University (GNU) offers 3,500 undergraduate courses and labs and 500 graduate courses and related supervisions. The Great Northern University Academic Staff Association (GNUASA) represents three distinct appointment types: tenured and tenure stream, continuing academic staff, and contract academic staff. For purposes of mapping the operations of the university's teaching programs, GNUASA initially included work performed by the teaching-focused and full responsibility tenure stream faculty in the same operational category in order to capture the global picture of course delivery.

As the costing team gathered information to clarify important operational assumptions, it became evident that the compensation structures required distinct models. The compensation structure and workload for teaching-focused faculty was more similar to continuing staff than full-responsibility faculty. The teaching workload for continuing and teaching-focused faculty were similar.



Continuing appointment teaching staff were responsible for 1,200 courses, however the number of courses and salaries varied across disciplines and individuals. The full-time equivalency (FTE) status ranged from 0.1 (teaching staff who regularly taught one course per year), to 1.0 for those who taught eight to ten courses per year. On average, continuing academic staff taught six courses per year. This was similar for teaching-focused appointments. Of the 600 tenure stream faculty, 100 were teaching-focused appointments, accounting for 600 courses taught by tenure stream faculty.

Contract academic staff were paid on a per course basis and the collective agreement provides enhancements for courses with large enrollments, labs, and other special characteristics. Most contract academic staff taught only one or two courses. There tends to be high turnover in this employee group. Contract academics who teach the same course for more than three years accrue continuing appointment rights and move into the continuing appointment group. Despite the turnover, the number of courses taught by contract academic staff, 500, remains relatively stable from year to year. The assumption is that the proportion of university courses delivered by this employee group will remain stable over the next term of the collective agreement.

The 500 tenure and tenure-stream (full responsibility) staff taught slightly less than one-half of all the university courses last year – a total of just over 1,700 courses. While the normal teaching load for a tenure stream appointment was four courses, there was variation due to academic, medical, and other leaves, reduced teaching loads for research chairs, temporary reduced responsibility appointments, and other forms of variance in the teaching load. The overall average teaching load was 3.5 for full-responsibility tenure and tenure stream faculty.

The staff association could pose the following questions to the administration to confirm the operational assumptions:

Will the same number of courses be offered over the near term (next three years)? Are there any anticipated changes to recent operational strategies? (e.g. increases in student enrollments, course delivery methods, etc.)

Invariably, standard operational practices at many universities will make some operational procedures difficult to define and cost. For example, some collective agreements may provide instructors with more 'credit' for teaching large courses or labs. Unit-level workload documents may provide teaching credit for Master/PhD supervisions in some departments or not others. Overload teaching may be compensated by overload payments or by reduced teaching loads in future years. The complex details of these arrangements are accounted for by the global modelling of operations as a whole. The underlying assumption is that (absent significant operational changes) the number of academic staff needed to deliver courses and supervise students at the university last year is the best predictor of the composition of the bargaining unit next year.

Does the bargaining unit require multiple compensation models?

Based on the review of compensation entitlements, workload provisions, and operational assumptions, the costing team may decide that it is necessary to separate the bargaining unit by appointment type or job classification. For GNUASA, the costing team divided the employee database in Step 3 into three distinct compensation models:

1. Tenure stream (full responsibility);
2. Tenure stream (teaching-focused) and continuing appointments; and
3. Contract Academic Staff.

Based on this decision, the costing team will divide the employee database into three costing templates.

Step 4 – Summary Basic Information

Once the employee database is divided into the three templates, calculation of the summary of basic information will be done by the template formulas.

Tenure stream (full-responsibility)

Reference period		Snapshot date	
Full-time employees		Total annual base salary costs	$63,389,718.00
Part-time employees	0		
Headcount (HC)	495	Average annual salary per HC	$128,060.04
Full-time equivalents (FTE)	495	Average annual salary per FTE	$128,060.04
Total courses (credits) delivered	1732		
Average courses (credits) per FTE	3.5	Average Salary per course	$36,599.14

Continuing & teaching stream

Reference period		Snapshot date	
Full-time employees		Total annual base salary costs	$26,592,725.00
Part-time employees			
Headcount (HC)	302	Average annual salary per HC	$88,055.38
Full-time equivalents (FTE)	226.3	Average annual salary per FTE	$117,510.94
Total courses (credits) delivered	1851		
Average courses (credits) per FTE	8.2	Average salary per course	$14,366.68

Finally, the costing team had to make a few adjustments to the template for contract academic staff. Most significant, the use of 'full-time equivalency' does not apply to this employee group, so calculations will be done on a headcount basis.

Contract academic staff

Reference period		Snapshot date	
Full-time employees		Total annual base salary costs	$4,001,300
Part-time employees			
Headcount (HC)	301	Average annual salary per HC	$13,293.36
Full-time equivalents (FTE)	NA	Average annual salary per FTE	
Total courses (credits) delivered	496		
Average courses (credits) per FTE	1.6	Average salary per course	$8,067.14

Analyzing Information & Calculating Costs

Steps 5 through 12 involve a standard procedure of analyzing the information collected and calculating the costs for each component of compensation. Analysis of the information collected, combined with the clarification of the operational assumptions should answer the basic question of what are the total annual costs for each component of compensation. This may require intermediary steps to transform the information provided into an appropriate format for use in the costing template.

Once the costing team has entered the total annual costs for each component of compensation, the template design calculates and expresses the cost for each category of compensation. Despite the standardized and automated design of these procedures, the process will require a variety of strategic decisions to ensure the accuracy and usability of the information generated for the Base Year Model. This section reviews these procedures and considerations based on the fictional GNU case.

Step 5 – Premium Pay

Analyzing information about premium pay

The costing team encountered a number of issues calculating premium pay costs. For tenure stream faculty, overload payments may take the form of overload stipends as indicated in the collective agreement. However, operationally, many faculty members choose to 'bank' the extra teaching credit in order to reduce their teaching load in a future year. Therefore, the costs associated with these premium payments may take the form of enhanced tenure stream salary or increased staffing. A similar issue arises for continuing and teaching-focused positions.

Recognizing that there are multiple modes of payment for overload premiums does not require any changes in the standard procedures. In this case, the direct costs of overload payments would be reflected in the premium pay category. The indirect costs of deferred teaching credits would be reflected in the increased composition of the bargaining unit. The underlying assumption is that the number of overload courses, and the patterns of direct and indirect compensation, will remain consistent in the near future.

Similar questions arise for CAS in relation to premium payments for tenure and class size. The employer provided information included these special benefits in the employee database without distinguishing between stipends for years of experience and stipends for large class sizes. However, the union had also requested information about the composition of the bargaining unit. Therefore, the base salary included the effective years of experience of CAS as defined in the collective agreement and operational information about the number of large classes triggering the special payments language. These premium payments can be separated from the base salary information for a more detailed profile of the CAS compensation structure if needed. As a result, the union costing team can separate these benefits from the base salary mass and assign this element of compensation to the premium pay category.

Calculating costs

In the tenure stream (full-responsibility) template, the premium payments for overload teaching and administrative stipends would not be salary-related benefits.

Calculate premium pay for base year (Tenure stream)

Component of Compensation: Premium Pay					
	Wage-related?	Total annual costs	Average annual costs per FTE	Average cost per course per FTE	% of base wages
Overload	No	$262,000.00	$529.29	$151.23	0.00%
Admin stipend	No	$510,000.00	$1,030.30	$294.37	0.00%

Summary for Category: Premium Pay				
	Total annual costs	Average annual costs per FTE	Average hourly costs per FTE	% of base wages
Total wage-related costs		$0.00	$0.00	0.00%
Total nonwage-related costs		$772,000.00	$220,571.43	
TOTAL COSTS OF PREMIUM PAY	$0.00	$772,000.00	$220,571.43	0.00%

Step 6 – Insured Benefits

Analyzing information about insured benefits

When calculating the costs associated with insured benefits, it is important to confirm the number of bargaining unit members eligible and enrolled in the benefits program.[36] There is a sizeable pool of continuing academic staff who fall just short of being eligible based on FTE status (0.5 FTE when the cut-off is 0.51). As a result, there are 84 continuing academic staff, of the 198, who are eligible for benefits.

The employer provided information about the total annual costs associated with each category of insured benefits. The union also received information about the individual premium costs of each benefit for single and family enrollments. The costing team can check the total annual costs against estimates based on enrollment data for the bargaining unit on an individual basis. Some discrepancy between these two figures should be expected given employment churn, but the differences should not be significant.

Calculating costs

The information provided by the employer did not allocate the premium payments by appointment type, so those costs must be allocated by the proportion of eligible employees. Of the 681 bargaining unit members eligible, 495 (73%) are tenure stream and the rest (27%) are teaching-focused and continuing. We must assume that the enrollment patterns of single and family coverage are similar for these two employee groups.

36. Eligibility and enrollment are two important factors associated with insured benefit costs. Despite eligibility, some employees may decline enrollment in benefit programs, even those benefits that are 100 per cent employer paid. Costs also vary depending on individual or family enrollment patterns.

Calculate insured benefit costs for base year (Tenure stream)

Component of compensation: Insured benefits						
	Coverage	Single	Family			
	Percentage	40%	60%			
Insured benefit	**Wage-related?**	**Total annual costs**	**Average annual costs per FTE**	**Average cost per course per FTE**	**% Base wages**	**Notes**
Supplemental health		$841,441.00	$1,699.88	$485.68	0.00%	
Dental		$599,621.00	$1,211.36	$346.10	0.00%	
Prescription drugs		$0.00	$0.00	$0.00	0.00%	Included with supplemental health
Vision		$0.00	$0.00	$0.00	0.00%	Included with supplemental health
Long-term disability		$0.00	$0.00	$0.00	0.00%	Employee paid
Basic life	☑	$162,022.00	$327.32	$93.52	0.26%	

Summary for category: Insured benefits				
	Total annual costs	**Average annual costs per FTE**	**Average course cost per FTE**	**% base wages**
Total salary related costs	$162,022.00	$327.32	$93.52	0.26%
Total non salary-related costs	$1,441,062.00	$2,911.24	$831.78	
TOTAL COSTS OF INSURED BENEFITS	$1,603,084.00	$3,238.55	$925.30	0.26%

Step 7 – Statutory Benefits

Analyzing information about statutory benefits

The employer provided total annual costs for each category of statutory benefits. Since these are essentially payroll taxes the total annual cost for each benefit should be divided between the three compensation models based on the relative portion of regular salary mass. This intermediary step is needed to allocate the appropriate proportion of the total annual costs to each segment of the bargaining unit.

Compensation template	Regular salary mass	% total salary mass
Tenure stream	$63,389,718	67.4%
Continuing & teaching stream	$26,592,725	28.3%
CAS	$4,001,300	4.3%

Calculating costs

When calculating costs, the first factor to check is whether the average annual salary by headcount is above the yearly maximum threshold for CPP and EI. In the case of continuing and teaching stream staff, the annual average by headcount ($88,055) is above the maximum for both CPP payments (check CRA website for current Yearly Maximum Pensionable Earnings YMPE) and Employment Insurance. As a result, these statutory benefits are non-salary related.

Calculate statutory benefit costs for base year (Continuing & teaching stream)

Component of compensation: Statutory benefits				
	Total annual costs	**Average annual costs per FTE**	**Average cost per course per FTE**	**% of base wages**
Canada Pension Plan	$1,316,571.00	$5,817.81	$711.28	4.95%
Employment Insurance	$507,136.00	$2,240.99	$273.98	1.91%
Employer Health Tax	$518,558.14	$2,291.46	$280.15	1.95%
Workers' Compensation	$385,662.00	$1,704.21	$208.35	1.45%

Summary for Category: Statutory benefits				
	Total annual costs	**Average annual costs per FTE**	**Average per course cost per FTE**	**% of base wages**
Total salary-related costs	$904,220.00	$3,995.67	$488.50	3.40%
Total non salary-related costs	$1,823,707.00	$8,058.80	$985.25	
TOTAL COSTS OF STATUTORY BENEFIT	$2,727,927.00	$12,054.47	$1,473.76	3.40%

In contrast, for CAS, these benefits will be recorded as salary-related because the employee group has not reached the threshold maximum on average.

Step 8 – Pension

Analyzing information about pensions

Like insured benefits, the eligibility requirements limit access to this benefit. However, unlike insured benefits, all members who are eligible for pensions must participate in the benefit program. The employer provided information about the total annual pension contributions made on behalf of bargaining unit members. It is important to clarify whether this figure includes additional solvency payments or other costs beyond the base contribution rates.

Costing pension benefits for solvency purposes goes beyond the scope of this manual. Special employer payments for ‘wind-up’ solvency liabilities may be significant, but such costs may change substantially based on interest rates, investment returns, and an array of actuarial assumptions. To model compensation cost of pension benefits, the union should focus on the established contribution rates. The total annual cost information by the employer in the GNU case can be checked against the estimates based on contribution rates for individual bargaining unit members eligible for pension benefits. Furthermore, the total annual costs will need to be allocated appropriately to the employee groups in each Base Year Model.

Calculating costs

Pension benefit costs, like insured benefits, must be divided appropriately based on eligibility. Pension benefits are salary-related. The employer included special solvency payments as part of their response to the union’s information request. These special payments should not be included in the Base Year Model as they involve the more volatile actuarial assumptions for defined benefit liabilities. Under the collective agreement, the base cost for the employer is to match the employee contribution rates.

Calculate pension contributions for base year (Tenure stream)

Component of compensation: Employer pension contributions				
	Total annual costs	Average annual costs per FTE	Average cost per course per FTE	% of base salaries
Pension	$5,362,872	$10,834	$3,095	8.46%

Summary for category: Employer pension contributions				
	Total annual costs	Average annual costs per FTE	Average course cost per FTE	% of base wages
Total salary-related costs	$5,362,872	$10,834	$3,095	0.084%
Total non salary-related costs		$0.00	$0.00	
TOTAL COST OF EMPLOYER PENSION CONTRIBUTIONS	$5,362,872.00	$10,834	$3,095	8.46%

Step 9 – Payments and Allowances

Analyzing information about payments and allowances

The costing team identified three benefit types in this category of compensation: 1) child care, 2) tuition support, and 3) professional development / expense reimbursements (PD/ER). While PD/ER is technically not part of total compensation (it is an operational expense rather than individual compensation), the GNUASA decided to include this item in the Base Year Model given its importance to members. Like insured benefits, only a portion of the bargaining unit is eligible for these benefits and the total annual costs have to be allocated proportionally to the employee groups.

Calculating costs

Component of compensation: Annual payments & allowances					
	Wage-related?	Total annual costs	Average annual costs per FTE	Average course cost per FTE	% of base wages
Tuition	No	$474,000.00	$957.58	$273.59	0.00%
PD /ER	No	$793,072.00	$1,602.17	$457.76	0.00%
Child care	No	$255,500.00	$516.16	$147.47	0.00%

Summary for category: Annual payments & allowances				
	Total annual costs	Average annual costs per FTE	Average course cost per FTE	% of base wages
Total salary-related costs		$0.00	$0.00	0.00%
Total non salary-related costs	$1,523,072.00	$3,076.91	$879.12	
TOTAL COST OF PAYMENTS & ALLOWANCES	$1,523,072.00	$3,076.91	$879.12	0.00%

Steps 10 & 11 – Other Benefits and Post-Retirement Benefits

The GNU case did not include any benefits in these categories, however, the same procedures of analyzing information and calculating costs would be applied to any benefits falling into these categories.

Step 12 – Summary Base Year Models

Once each step has been completed and the summaries are populated in each category of compensation, the template automatically pulls the data from each step to complete the Base year Model. In the case of the tenure stream employee group at GNU, the costing team created the following Base Year Model.

Step 12 – Summary base year model (Tenure stream)

Summary of Base Year Costs					
	Total annual costs	**Average annual costs per FTE**	**Average course (credit) cost per FTE**	**% of base salaries**	**% of payroll**
Regular salaries					
Regular salary costs	$63,389,718.00	$128,060.04	$36,588.58	100.0%	83.7%
Premium pay					
Total salary-related costs	$0.00	$0.00	$0.00	0.0%	0.0%
Total non salary-related costs	$772,000.00	$1,559.00	$445		
Insured benefits					
Total salary-related costs	$162,022.00	$327.32	$93.52	0.3%	0.2%
Total non salary-related costs	$1,441,062.00	$2,911.24	$831.78		
Statutory benefits					
Total salary-related costs	$2,153,239.00	$4,349.98	$1,242.85	3.4%	2.7%
Total non salary-related costs	$3,865,295.00	$7,808.68	$2,231.05		
Pension contributions					
Total salary-related costs	$5,362,872.00	$10,834.08	$3,095.45	8.5%	6.8%
Total non salary-related costs	$0.00	$0.00	$0.00		
Payment & allowance costs					
Total salary-related costs	$0.00	$0.00	$0.00	0.0%	0.0%
Total non salary-related costs	$1,523,072.00	$3,076.91	$879.12		
Other benefit costs					
Total salary-related costs	$0.00	$0.00	$0.00	0.0%	0.0%
Total non salary-related costs	$0.00	$0.00	$0.00		
Post-employment benefit costs					
Total salary-related costs	$0.00	$0.00	$0.00	0.0%	0.0%
Total non salary-related costs	$0.00	$0.00	$0.00		
TOTAL REGULAR SALARY COSTS	$63,389,718.00	$128,060.04	$36,588.58	100.0%	80.6%
Total salary-related costs	$7,678,133.00	$15,511.38	$4,431.82	12.1%	9.76%
Total non salary-related costs	$7,601,429.00	$15.356.42	$4,387.55		9.66%
TOTAL BASE YEAR COSTS	$75,744,041.00	$158,927.84	$45,407.95		100.00%

The summary Base Year Model provides a number of quick reference points for the union leadership and bargaining committee. First, the 'roll-up factor' is 12.1 per cent, as shown in the cell for the percent of base salaries for the total salary-related benefits. This figure indicates that given the compensation structure and assumptions in the composition of the bargaining unit and university operations, any across-the-board increase will have an additional cost of 12.1 percent for this employee group. Pension contributions are the main driver for salary-related benefits.

Second, the Base Year Model provides a quick overview of the compensation structure for the bargaining unit. Not surprisingly, base salary costs account for the vast majority (80.6%) of payroll costs for this employee group.

GNUASA Bargaining Mandate & Proposal Development

Creating the Base Year Model will allow union leaders to cost various compensation proposals and inform bargaining strategies. Every academic staff union has its own procedures for establishing the mandate for bargaining. Often this involves researching comparators and identifying trends in university sector bargaining outcomes. Academic staff unions that can collect on total compensation (not just base salaries) at comparator universities will generate more informed bargaining strategies. If negotiations are forced into mediation or interest arbitration, information about total compensation will be central to the union's submission.

Costing the Union's Proposals

The template provides a worksheet to cost individual union proposals. The standard procedure for costing involves the following steps:

1. Determine Where Each Proposal Should be Accounted for in the Template

Changes to base salaries should be entered into the top of the template, but there are several options for benefit changes. For example, benefit changes can include ongoing or one-time changes, as well as enhancements or reductions when costing employer proposals.

2. Calculate Changes to Base Salaries & Salary-Related Benefits.

Input the base year amounts and the across-the-board increase percentage. The template then calculates the annual increases, the cash flow (new money) and the percentage increase. For the GNUASA a proposal for across-the-board increases of 2%-2%-3%, the template would generate the following estimates.

Financial impact of the collective agreement

General wage increase	**Flat rate percentage**	**2.00%**	**2.00%**	**3.00%**		
	Base year	**Year 1**	**Year 2**	**Year 3**	**Added to base**	
Base average salary per course (per course)	$36,588	$37,320	$38,066	$39,208	**Total**	**%**
Total base salaries	$63,389,718	$64,657,512	$65,950,662	$67,929,182	$4,539,464	7.16%
Salary-related benefits	$7,678,133	$7,831,695	$7,988,329	$8,227,979	$549,846	7.16%
Sub-total salaries & salary-related benefits	$71,067,851	$72,489,208	$73,938,992	$76,157,161	$5,089,310	
Cash flow (new money)		$1,421,357	$1,449,784	$2,218,169		
% Increase to salaries & salary-related benefits		0.02%	0.02%	0.03%		7.16%
Cash flow (new money)		$1,421,357	$1,449,784	$2,218,169	Total added to base:	$5,089,310
% Increase		2.00%	2.00%	3.00%	% Added to base:	7.2%

Nearly $550,000 of the costs of this proposal is embedded in the salary-related benefits. Due to the roll-up costs and compounding effects of the multi-year proposal, the end rate increase would be 7.16%. The template also provides an estimate for the cash flow cost of the proposal for the tenure stream faculty, $5,089,310. The same procedure would have to be applied to the other employee groups to obtain the total impact of the proposal on compensation costs.

3. Calculate the Cost for Each Benefit Change Proposal

Calculations for benefit changes include only the difference between the base year and the proposal; that is, the new money needed to pay for the benefit change.

One challenge for the union bargaining team is that new premium rates for insured benefits may not be available from the provider. The union may obtain market estimates from an insurance broker, but some cost projections will be estimates. There are also special considerations for proposed changes to leaves that may require an intermediary estimate for replacement costs. Again, operational assumptions are needed to guide the union's costing strategy. In general, conservative replacement estimates of a one-for-one ratio tend to be the most appropriate.

Conclusion

The GNUASA case provides an example of how to apply the costing manual to a collective bargaining scenario in the university and college sector. The core objective of the manual is to improve bargaining practices by enhancing the capacity of academic staff unions to calculate the cost impacts of proposals and negotiated changes on total compensation. Putting this guide to use involves a number of ongoing activities.

The Costing Manual is a Working Guidebook

The guide should serve as a workbook and reference material. As the bargaining committee prepares for negotiations and during the negotiations process, the team should refer to the various sections to help guide them through the process of collecting information, calculating the costs of compensation proposals, and making strategic decisions about priorities and equity considerations.

Build on Expertise but Engage the Entire Bargaining Team

Many academic staff unions benefit from the contributions of members with expertise in mathematics, accounting, or compensation. The guide is designed to support this expertise, not replace it. Importantly, the guide supports broader engagement of union leaders in strategic decisions regarding the economics of negotiations.

The Costing Templates Should be Tailored to Specific Situations

The Excel-based templates cannot account for specific terms and conditions of individual collective agreements. The templates may need to be tailored to fit the context of particular universities.

The Instructional Guide is a Tool that Must be Worked to be Useful

Creating a Base Year Model involves an investment of time and energy, but can provide union leaders with critical decision-making information. The work involved will also help the bargaining team set priorities and advocate for equity. Costing practices do not guarantee successful outcomes, but the lack of costing knowledge puts unions at a distinct disadvantage in the current bargaining environment.

Appendix A: Key Terms & Concepts in Costing

Aging: "Aging" is an estimation method used in collecting information about compensation when some changes in compensation are already known, but have not yet occurred. For example, if information from payroll is taken before changes such as an annual across-the-board increase or progression through the ranks occur, then the Base Year Model is "aged" to reflect the known changes in compensation. Selecting a snapshot date in the current collective agreement after all changes to compensation have taken place will avoid the need for aging.

Assumptions: In order to predict future cost impacts of changes in total compensation, costing models require assumptions about the operations and workforce composition. Generally, these near future assumptions are based on the established operations and bargaining unit composition. For example, a key assumption is that the information drawn from the most recent year of the collective agreement is the best estimate to predict how changes will impact future costs. The Base Year Model will establish assumptions about the amount of premium pay, the distribution of academic employees by appointment type and position in the career development grid, and other operational characteristics based on information collected in the past year.

Average annual cost per full-time equivalent (FTE): The costs associated with each component of compensation are expressed in terms of the total annual costs, average annual costs per FTE, and average cost per course per FTE. The model assumes 'weighted' averages, with FTE typically serving as the weight. If there are benefits paid to only a sub-set of the bargaining unit, then the costs are expressed as an average for the entire bargaining unit on an FTE basis.

Base salary: The base salary reflects the annual earnings excluding any premium pay for overload or research stipends. It may also be necessary to differentiate nominal versus actual base salary in the case of leaves or reduced workloads. The cost calculations to create the Base Year Model should reflect actual costs incurred in most situations.

Base Year Model: A detailed breakdown of total compensation costs based on the most recent operational and cost experiences. The Base Year Model is the benchmark time period against which the costs of compensation changes are measured. The reference period is usually the final year of the expiring collective agreement. The Base Year Model summarizes the cost of each component of compensation. The model can then be used to estimate the cost impact of each proposed change to the various elements of compensation. The Base Year Model provides a template to estimate the incremental cost increase of the proposals expressed in terms of case flow and the percentage increase as an end rate.

Career Development Increment: Academic salary models often provide incremental salary increases to reflect career growth from newly appointed to the end of one's academic career. These models range from automatic step increases in wage grids, to models that incorporate expectations for performance and career growth. Merit pay or performance bonuses may also be included in the models to recognize performance that exceeds expectations.

Cash flow: The cash flow method of reporting costs reflects the estimated amount of money needed to pay the costs associated with the collective bargaining proposals. Cash flow is determined by the timing of the cost changes, but it does not distinguish between increases in the base rate and one-time or lump sum payments.

Cash flow added to base: This is the monetary value of cash flow associated with changes in base compensation. This figure measures the monetary or case value reflected in the end rate change in total compensation.

Churn: This term refers to the constant changes in the composition of the bargaining unit on an individual level. Senior academic staff retire, new hires enter the bargaining unit, and a variety of other changes to teaching and workloads may occur from one term to the next. Provided that these changes are constant and random, the snapshot profile of the bargaining unit will be relatively smooth and constant. Consistent, random churn supports the assumption that the recent composition of the bargaining unit is the best model to predict the near future composition of the bargaining unit.

Cost of living allowances (COLA): COLAs are formulas based upon changes in the Consumer Price Index (CPI) published by Statistics Canada. Costing COLAs requires assumptions about future increases in the CPI. Bargaining trends have largely shifted from the use of COLA clauses to more fixed calculations, such as across-the-board increases, designed to protect purchasing power against inflation.

Compounding compensation increases: In multi-year collective agreements, multiple increases to the base salary compound over the life of the agreement. Thus, an annual increase of 2 per cent per year over a three-year agreement is slightly more than 6 per cent. While the individual effect of compounding may appear small, the impact of compounding at the aggregate level of the bargaining unit can be significant for an organization.

End loading: End loading refers to the practice of delaying the increase in salary or benefits until the end of a multi-year agreement. The effect of end loading reduces the case flow over the term of the collective agreement, but may not substantially change the end rate.

End rate cost reporting method: The end rate method of reporting costs measures the percentage increase in the base compensation rate over a fixed period. In contrast to case flow, end rate reporting is not sensitive to the timing of the changes; end rate only measures the ongoing or structural changes that occur within the window of the reference period.

Front loading: Front loading refers to the timing of salary or benefit increases. Front loading involves placing compensation increases toward the beginning of a multi-year agreement. Because of the cash flow and compounding effects, front loading results in greater cash value to employees and higher cash flow costs for employers.

Full-time equivalent (FTE): For universities with part-time or reduced responsibility employees, converting part-time positions into FTEs is one way to account for part-time positions in a simplified costing model. For example, if all part-time employees taught four courses and the normal teaching load was eight, their FTE would be 0.5. Because some benefits, such as the Canada Pension Plan (CPP), are based on individual employees, it is important to retain the total headcount (HC) figure as part of the basic data in the costing template.

Maintenance of benefits: The cost of insured benefits often increases because of increases in the cost of premiums from inflationary pressures, even without any improvements in the benefit package. In order to maintain the same level of benefits from one year to the next, organizations have to pay more. There are contrasting perspectives between unions and employers on whether to include the costs of maintaining existing benefits as part of the economic settlement in negotiations. Unions traditionally resist including the cost of maintenance of benefits as a component of the costing model. This is consistent with the general practice of including only costs that result from negotiated changes to the terms of the collective agreement.

Progression-through-the-ranks (PTR): Similar to career development increments, PTR is a salary model that provides incremental salary increases to reflect career growth from a newly appointed staff to the end of one's academic career. These models range from automatic step increases in wage grids, to models that incorporate expectations for performance and career growth. Merit pay or performance bonuses may also be included in the models to recognize performance that exceeds expectations. Trends in faculty salaries have led to compression and annual increases have largely replaced enhancements based on promotions through academic ranks – assistant to associate to full professor.[37]

Post-employment benefits: Unions may negotiate benefits paid to members either at the time of retirement or on an on-going basis during retirement. Severance payments and retirement allowances are the most common forms of post-employment benefits. Employers and unions may use different costing methods for deferred compensation arrangements. Employers may cost the total liability based on total accrued costs of the benefit, whereas union costing methods typically focus on actual costs paid during the base year reference period.

Productive hours: Some costing models distinguish productive hours from pay for time not worked such as holiday and vacation pay. These costing models tend to be more salient for bargaining units with hourly workers or where paid time off is more closely tracked. The costing model presented in this manual incorporates paid leave costs as part of the total paid hours per year. Operational assumptions still need to be checked if there are changes in academic workload. For example, changes in workload may result in the need for more teaching staff resulting in replacement costs or increases in the composition of the workforce.

Reference period: The reference period is the window of time upon which certain information is based, such as the number of overload courses taught or the costs of a particular benefit. Operational assumptions reflect the experience data from the reference period. The Base Year Model typically estimates costs from the final year of the expiring collective agreement as the reference period.

Roll-up: When base salaries increase, certain benefits related to base pay rates increase automatically, or 'roll-up.' The roll-up factor is the relative impact, expressed as a ratio or percentage, of salary-related benefits on total base salary costs. This figure can provide a quick estimate for the roll-up costs associated with a change in the base salary.

37. Martinello, Felice. "Faculty Salaries in Ontario: Compression, Inversion, and the Effects of Alternative Forms of Representation", *ILR Review* (63: no. 1), 2009. p. 128-45.

For example, if the roll-up factor is 0.3 or 30 percent, then a $1,000 increase in the base salary has a real total cost impact on the institution of $1,300.

Salary-related benefits: These benefits change automatically with any change in base salary. The cost impacts of salary-related benefits result in a 'roll-up effect.' The consistent application of across-the-board (ATB) increases, such as professional expense allowances, does not make those benefits salary-related. Those increases, or the application of ATB, must be confirmed through negotiations and do not result from the cost structure of the benefit.

Snapshot: The snapshot method is used to collect information about employees in the bargaining unit or costs of certain benefits. A 'snapshot' of the bargaining unit is taken on a specific date to record the number of employees, their FTE status, base salaries, length of service, position in the salary, or other characteristics that shape compensation. The snapshot method builds the assumption of the composition of the bargaining unit. The variety in the individual employment status of bargaining unit members on the snapshot date, (e.g. on leave, on reduced workload, on LTD, etc.) is representative of the composition of the bargaining unit during the proposed term of the collective agreement. Individual changes in employment status, the 'churn,' is treated as random noise not affecting the aggregate composition of the bargaining unit.

Total compensation: Costing collective bargaining proposals need to consider total compensation, not just salary or a limited set of benefits. Total compensation includes all sources of salary and benefits that academic staff receive as remuneration for work done at the university or college.

Yearly maximum pensionable earnings: The federal government sets the Yearly Maximum Pensionable Earnings (YMPE), the Annual Basic Exemption (ABE), and the rate for the Canada Pension Plan (CPP). Contribution rates for defined benefit pension plans typically differ for salary above and below the YMPE.

Appendix B: Sample Information Request Letter

(Date)

Director of Faculty Relations (or appropriate official)

Dear _______,

As part of its preparation for the upcoming renewal of the collective agreement between ______________, the (academic staff association) makes the following request for information organized in three broad categories:

1. Composition of the bargaining unit;
2. Compensation of bargaining unit members; and
3. Bargaining unit work and workload

This information is needed to assess the current terms and conditions of employment of bargaining unit members and develop informed proposals to fulfill the union's duty of fair representation and good faith bargaining.

The information should be provided in a reasonable timeframe, but no later than _____ (date). The union requests that the information be provided in the format requested. If this is not possible, or the requested information is not available in the requested format, notify the union what information can be provided and in what format that information is available.

Composition of the Bargaining Unit

In order to prepare for the upcoming round of negotiations, (the academic staff association) requests information regarding employees who are members of the bargaining unit represented by the union. The union requests that the information be provided in a database format (Excel, csv, etc.).

Name or ID

Base salary

Administrative or other additional stipends

Merit award in previous academic year

Total annual salary in previous academic year

Appointment type / Rank

Regular teaching load

Courses taught in previous academic year (including shared responsibility)

Years of service

Compensation of Bargaining Unit Members

(The academic staff association) requests the following information regarding compensation paid to employees who are members of the bargaining unit represented by the union.

Overload & Other Salary Premiums

The number of courses and total annual compensation paid in (July 1 to June 30 in the ____ academic year) for overload courses

The number of administrative stipends and total annual compensation paid in (July 1 to June 30 in the ____ academic year).

Insured Benefits

Provide the total monthly premium paid by the employer for bargaining unit members as of ____ (snapshot date) for the following benefits:

- Dental
- Vision
- Group life insurance
- Supplemental health

Statutory Benefits

Total annual payments made during (July 1 to June 30 in the ____ academic year) in each of the following statutory benefit categories.

- Employment Insurance
- Canada Pension Plan
- Workers' Compensation
- Employer Health Tax

Pension Contributions

Total annual regular pension contributions paid by the institution on behalf of employees in the bargaining unit.

Annual Payments & Allowance

Total annual payments by the institution during (July 1 to June 30 in the ____ academic year) to employees for each of the following allowances:

Professional expenses

Other benefits

Post-employment benefits

Bargaining Unit Work & Workload

In order to prepare for upcoming negotiations, the union requests the following information regarding work performed by bargaining unit members:

1. Total number of courses offered for academic credit 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.

If you require clarification regarding this request or need more information to fulfill this request, contact _______________ by phone ___________ or email ____________.

Sincerely,

Lead Negotiator (or appropriate academic staff association representative)

Appendix C: Mock Collective Agreement – Selected Articles[38]

Article 2 – Recognition

The University recognizes the Association as the exclusive bargaining agent of the Members of the Bargaining Unit. Unless and until the Parties agree otherwise, the Bargaining Unit is defined by the certificates of the Labour Relations Board dated October 17, 1987. These certificates, and subsequent amendments, if any, shall be deemed to be incorporated into the become part of this Collective Agreement.

Subject to the exclusions outlined in Article 2.4, Members in the Bargaining Unit are all persons employed as members of the academic staff at Great Northern University, including:

Persons who hold an appointment to the academic staff with Tenure, as defined by Article 30 of this agreement;

Persons who hold a renewed tenure-track, initial tenure-track, non-renewable, non-renewable replacement, or appointment with academic rank, as defined in Article 30 of this agreement;

Persons who hold continuing adjunct appointments as defined in Article 30 of this agreement;

Persons who hold a contractually limited or sessional / term appointment; and

Persons who hold initial, renewed, continuing, or contractually limited term appointments as Librarians, as defined by Article 30 of this agreement.

Article 12 – Continuing Appointments

A Term Adjunct with a minimum of ten (10) years of consecutive service as an instructor and whose years of service multiplied by the cumulative total of the full-course equivalents, she/he has successfully taught in that period equals one-hundred (100) or more may apply to convert his/her Term Adjunct appointment to a Continuing Adjunct appointment in a Unit.

Term Adjuncts, who are converted to Continuing Appointments, shall have FTE salaries that are comparable to existing salaries of Members in the same discipline at Queen's who have similar years of experience and accomplishments.

The standard FTE percent for Continuing Appointments shall be fifty (50) percent for a teaching load equivalent to the Unit teaching workload, pro-rated for teaching loads that differ from the Unit's normal teaching load. The FTE percent calculation includes an allowance for course-related administration.

The FTE of a Continuing Appointment shall be increased if the Member teaches an overload course for five or more consecutive years.

38. The mock collective agreement draws upon actual language from a variety of collective agreements in the sector from across Canada. The mock collective agreement is designed for instructional purposes only and does not represent model or preferred language.

Article 15 – Leaves

Parental Leave

When a Member qualifies for parental benefits under the Employment Insurance Act related to parenthood, as determined by Service Canada, the benefit payable by the University shall be the difference between ninety percent (90%) of the Member's regular salary at the commencement of the leave and the amount the Member receives from Employment Insurance benefits plus any other earnings from employment, for a maximum period of seventeen (17) weeks. Further unpaid leave shall not be unreasonably denied. (This ninety percent (90%) top-up applies where the Member has the requisite number of weeks of insurable earnings for Employment Insurance, irrespective of the length of time of employment at GNU.)

Sick Leave

A Member who holds a Tenure-track, Tenured, or Continuing Appointment who is absent from work as a result of illness or injury up to a maximum of ninety (90) consecutive Calendar days shall receive his/her actual salary and benefits except in the following circumstances:

1. The injury or illness resulted from a work-related incident covered by Workers' Compensation;
2. There is a recurrence of the same or related illness or injury within ninety (90) days following a previous return to work from sick leave.

To ensure a timely application and consideration for Long Term Disability benefits, the person to whom the Member reports will inform Human Resources (Occupational Health and Wellness) as soon as possible of the absence due to illness or injury.

Academic Leaves

Full-time Faculty Members are eligible to apply for Study/Research Leave to commence after six (6) years of continuous faculty service (or its equivalent) since appointment at the University. Only tenured Faculty Members may take a Study/Research Leave.

Sabbatical leave salary support shall be at the rate of:

Six-Month Leaves

a. 100% of academic base salary for six-month leaves.

Twelve-Month Leaves

a. First sabbaticals: For all employees who are taking their first sabbatical leave sabbatical salary shall be 100% of base salary.
b. Second and subsequent sabbaticals: For second and subsequent sabbaticals, sabbatical salary support for twelve (12) month leaves shall be 80% of academic base salary.

Article 18 – Salary

Assistant Professor Floor

The assistant professor floor will be $74, 250. The value of the floor will be indexed to the ATB increases in each year of the collective agreement.

Career Development Increment

The CDI is intended to provide financial progress through each rank commensurate with actual development in a Member's career. Career development is not a measure of the number of years a Member has been employed in a rank, but is based upon, recognizes and rewards actual development in the quality of performance in relation to the Member's responsibilities specified in Article 17, the Member's workload approved or authorized in accordance with Article 20, and the characteristics and contributions relevant to appointment, reappointment, promotion and tenure.

Subject to the performance review detailed below, the base salary of each member shall be increased on an annual basis by $2,500. Where a Member has been given a performance rating of "Unsatisfactory", the Provost may, after having given due consideration to mitigating circumstances, withhold, in whole or in part, the Annual Career Development Increment. The decision of the Provost is subject to the Grievance procedure.

A senior abatement to a Member's career development, having the following percentage value of the assistant professor floor, is activated at 2.3 times the floor. The CDI for Members with salaries at or above the abatement shall be reduced by $2,000 to a $500 annual CDI.

Merit Awards

Merit awards are granted in accordance with criteria and procedures outlined below. A merit award for members shall be $1,000, $2,000 or $5,000 increase in annual salary. (The merit award will be pro-rated for part-time Members based on FTE.) The University will establish an annual merit pool equal to the total number of full-time equivalent (FTE) members in the bargaining unit times $500. The University is not required to disperse all funds in the annual merit pool unless warranted by performance reviews. Merit disbursements will be pro-rated if performance reviews result in merit awards which exceed the annual merit pool.

Administrative Stipends

A Faculty Member who is a Department Chair shall receive an annual stipend. The amount of the annual stipend shall be a minimum of $10,000. The actual stipend amount shall be determined by negotiation between the Faculty Member and the Dean at the time of appointment to the position of Chair.

Overload

Members entitled to additional remuneration in recognition of overload teaching shall receive an amount not less than $10,000 per full class of 6 credit hours, or equivalent, (or a prorated amount for teaching a fraction of a class).

Professional Development / Expense Reimbursement

Each eligible Member may claim reimbursement of eligible expenses up to a value of $2,000. PD/ER for part-time Members will be pro-rated in accordance with the Member's FTE.

Article 20 – Benefits

All existing benefits applicable to Members shall be maintained except insofar as they are modified by this agreement. The Benefit Plans currently in effect include the following:

Extended Health Care Plan;

Dental Care Plan;

Vision Care Plan;

Basic Group Life Insurance Plan;

Long Term Disability Plan;

Optional Group Life Insurance Plan;

Optional Accidental Death, Dismemberment and Loss of Sight Plan.

The University shall pay 100% of the costs for the plans listed, except for Long Term Disability Plan, Optional Group Life Insurance, and Optional Accidental Death, Dismemberment and Loss of Sight Plan for which Members will pay 100% of the costs.

There shall be a Joint Benefits Committee consisting of 2 representatives of the Association and 2 representatives of the University for the ongoing review of the group benefits plan.

Pension

The Parties agree to continue the GNU pension plan in effect. The Parties agree that the maximum contribution rates of Members shall be:

Below YMPE – 9%
Above YMPE – 11%

The Employer contribution rates will continue to be determined by the Plan Actuary, but in no case shall be less than the Member rates.

Provide the total annual pension contributions made by the employer which match employee contributions. Do not include additional employer contributions based on actuarial valuations.

Childcare

The University shall establish an annual childcare fund of $25,000. Eligibility and disbursement of the funds will be done in accordance with the GNU childcare program. The program will be jointly administered by the University and the Association.

Article 35 – Workload

A Member's workload normally includes, in varying proportions, the following duties:

1. Undergraduate and/or graduate teaching;
2. Research, scholarly, artistic and/or professional activity;
3. Academic administration with the university;
4. Professional responsibilities outside the university.

Teaching responsibilities require Members to share equitably the annual instructional responsibilities of their departments/programs/schools, to contribute to their department's/program's/school's curriculum diversity and richness, and to foster their students' critical and creative abilities.

The undergraduate and/or graduate classes to be taught by a Member, and other significant teaching responsibilities assigned to a Member, shall be defined within the Member's Department, School or College, where such units exist or within the Member's Faculty in Faculties where no Departments, Schools or Colleges exist. Members doing overload teaching shall receive an overload stipend.

Research responsibilities require Members to maintain a program of research, scholarship or artistic creativity through which they should aspire to a national or international reputation as scholars.

Service responsibilities refer to the annual contributions that Members make to university governance, to their profession, to the development of their discipline nationally, internationally or locally, and to the furthering of good relations between the University and the local community.

A normal annual workload will include contributions from all three areas of activity, though the particular components of a Member's annual responsibilities may vary from time to time. Research and teaching will take precedence, but all Members will carry their share of service work and achieve an appropriate balance among all three areas of activity.

Appendix D: GNUASA (Union) Information Request

As part of its preparation for the upcoming renewal of the collective agreement between GNUASA and the university, the union makes the following request for information organized in three broad categories:

1. Composition of the bargaining unit;
2. Compensation of bargaining unit members; and
3. Bargaining unit work and workload

This information is needed to assess the current terms and conditions of employment of bargaining unit members and develop informed proposals to fulfill the union's duty of fair representation and good faith bargaining.

The information should be provided in a reasonable timeframe, but no later than one month from the receipt of this request. The union requests that the information be provided in the format requested. If this is not possible, or the requested information is not available in the requested format, notify the union what information can be provided and in what format that information is available. If there are any questions or concerns regarding the requested information, the union encourages the university to express those as soon as possible.

Composition of the bargaining unit

The union requests a database of bargaining unit members. The database should contain the following fields of information about each bargaining unit member:

Name or ID
Base salary
Administrative or other additional stipends
Merit award in previous academic year
Total annual salary in previous academic year
Appointment type / Rank
Regular teaching load
Courses taught in previous academic year (including shared responsibility)

Compensation of bargaining unit members

The union requests information about total compensation payments made to bargaining unit members in the previous academic year in accordance with the relevant articles in the collective agreement.

Premium pay

1. Total annual overload payments made to bargaining unit members by appointment type.
2. Total annual administrative payments made to bargaining unit members by appointment type.
3. Total annual premiums paid to CAS for large classes.
4. Course cancellation fees paid to CAS.
5. Total annual stipend enhancements paid to CAS for years of experience.

Insured benefits

The union requests the total annual premiums paid by the employer for the following benefits.

1. Supplemental health.
2. Dental care.
3. Vision care.
4. Basic group life insurance.

Statutory benefits

Provide the total annual payments for bargaining unit employees for the following statutory benefits:

1. Employer Health Tax
2. Canada Pension Plan
3. Worker's Compensation
4. Employment Insurance

Pension contributions

Provide the total annual pension contributions made by the employer which match employee contributions. Do not include additional employer contributions based on actuarial valuations.

Allowances

What was the total amount paid for PD/ER in the last academic year?
Total annual payments towards child care.
Total annual payments for tuition support.

Bargaining unit work and workload

The following question requests information regarding work performed by bargaining unit members in the previous academic year.

1. Total number of courses offered for academic credit 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.

Appendix E: GNU (Employer) Response to Information Request

To: GNUASA

Response to Information Request

This letter is in response to the union's information request and subsequent modifications of that request by phone and email communications.

Composition of the Bargaining Unit

The employer provides the attached database of bargaining unit members. As previously explained, some of the information requested by the union is not available. The university could not provide information about teaching load and specific courses taught in the previous academic term as that information is stored in a separate database.

Compensation

Premium pay

1. Overload payments in previous academic year = $875,000
   a. Tenure stream = $262,000
   b. Teaching stream = $350,000
   c. Continuing = $263,000
2. Administrative stipends = $640,000
   a. Tenure stream = $510,000
   b. Teaching stream = $130,000
   c. Continuing = $0
3. Large class premiums = $6,500
4. Cancellation fees = $0
5. Years of experience premiums to CAS = $26,400

Insured benefits

Supplemental health premium (Including prescription drugs and vision)

*The university's benefit provider's contract runs on a fiscal calendar from May 1 – April 30. These costs reflect total projected costs for the remainder of the fiscal benefit carrier contract period.

Health	Individual premium (single)	Individual premium (family)	Billed premium
May 1-Apr 30	$85.45	$178.13	$1,152,660

Dental premiums

Dental	Individual premium (single)	Individual premium (family)	Billed premium
May 1-Apr 30	$51.40	$133.75	$821,399

Basic Life

Life Insurance		Premiums paid
May 1-Apr 30	$0.213 per $1,000 coverage	$212,489

Statutory benefits paid

1. Employer Health Tax = $1,832,682
2. Canada Pension Plan = $4,652,195
3. Worker's Compensation = $1,362,764
4. Employment Insurance = $1,792,000

Pension benefit contributions

Employer base pension contributions = $7,346,401

Special solvency payments = $12,000,000

Professional development / expense reimbursement = $1,086,400

Child care payments = $350,000

Tuition support payments = $650,000

Bargaining Unit Work & Workload

1. Total number of courses = 3,500
2. Courses delivered by bargaining unit members = 3,450
3. Total number of active bargaining unit members by appointment type
    a. Tenure and tenure stream = 495
    b. Teaching focused = 102
    c. Continuing = 198
    d. Contract academic staff = 300

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