University
Pensions
Project

UPP Design Framework

June 2015

ONTARIO UNIVERSITY PENSIONS PROJECT (UPP)

UPP DESIGN FRAMEWORK

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A. Preamble

The objective of the exercise has been to develop a model jointly sponsored pension plan (JSPP) in the Ontario university sector that respects and reflects the various interests among and between employers, faculty associations, and unions representing employees.

With support from the Ministry of Training, Colleges and Universities, and the leadership of the Council of Ontario Universities (COU) and the Ontario Confederation of University Faculty Associations (OCUFA), this project encompassed broad consultation, spanning several years.

The intent is that the model developed through this design phase will serve as the basis for consideration by the Government of Ontario for an exemption from solvency funding, and as the basis for the building of a new JSPP by interested university and employee group participants.

Universities and employee groups in the sector are at different stages in their consideration of pension issues, and in their collective bargaining cycles. Therefore it is anticipated that a new JSPP will develop over a period of several years, beginning with a group of initial participants followed by additional participants who will become part of the JSPP over time.

While the UPP Design Framework is expected to carry substantial weight in the development of the new JSPP by the initial participants, reflecting as it does a broad consensus in the sector, the final decisions with respect to governance and benefits will lie with the initial participants. What we know for sure is that this plan will be jointly sponsored, and that interested Ontario universities and their employee groups must make a collective decision to join, and that, at a minimum, all university employees who are currently members of a university pension plan will be eligible to join the new JSPP (subject to local bargaining).

The governance details in this framework document set out a two-tier structure consisting of a sponsors' organization with responsibility for all aspects of plan design including benefits, contributions, membership etc. and an administrative organization with fiduciary responsibility for the administration and funding of the plan.

One of the key objectives is to ensure that the introduction of a new JSPP in the sector does not result in a fragmentation or deterioration of the benefits provided for in existing plans. To ensure this, on both an initial and an ongoing basis, the structure contemplates that the new JSPP will assume responsibility for the benefits provided under the pre-existing plans, and will receive from the sponsors of those plans assets corresponding to the liabilities assumed. Upon joining the JSPP, Universities will be responsible for the funding of deficits related to accrued benefits.

In addition to a JSPP governance structure, this UPP Design Framework document includes two plan designs which, based on joint actuarial analyses, fall within the overall funding envelope of 18 to 20% of pay. Where possible, this illustrative summary reflects the consensus objectives of those party to the discussions regarding the design goals. Where consensus has not been reached, the range of options and related issues are described. A list of open issues that will need to be addressed by the initial participants, including provisions for hybrid and DC plans, is attached.

While the summary of plan provisions presents two model plan designs whose cost falls within the 18 to 20% funding envelope, the initial participants may choose to vary the benefit structure to provide for a funding cushion or reserve. In that case, the initial plan provisions would be established at an actuarial cost lower than the described funding envelope, with the remainder held in a contingency reserve or absorbed in additional provisions for adverse deviation. The decisions made by the initial participants will also reflect any relevant government solvency exemption requirements.

The current models were costed using available data gathered in 2013 (see Appendix B for more detail). Should the data from the actual participants be different than the data set used to cost benefits, the models would change accordingly.

The parties envisage a stepped approach to the construction of the JSPP.

The first step is to obtain conditional approval from the Government of Ontario for a solvency funding exemption for a multi-employer JSPP for interested universities in the province. Given that the costs and risks associated with continuing with the existing regulatory regime is a key motivating factor for many interested in this initiative, an advance indication that a solvency funding exemption will be granted for the JSPP is a necessary condition for those considering whether to pursue this initiative to the next stage, a stage which will necessarily entail certain costs.

The next step is to identify the group of initial participants that will finalize the design phase of the project, and then depending on interest, continue through the process of building the new JSPP. Further details and recommendations regarding these next steps are provided in this UPP Design Framework document.

B. Introduction

The Ontario Confederation of University Faculty Associations ("OCUFA") and the Council of Ontario Universities ("COU") developed a document, *Jointly Shared Principles for the Establishment of a University Sector JSPP,* completed 17 January 2014 setting out principles for the development of a new multi-employer jointly sponsored defined benefit pension plan in the University sector (the "Principles Document".) The Principles Document, attached as Appendix A, was also endorsed by the following unions: OCUFA, CUPE, OPSEU, OSSTF, Unifor and USW ("the Coalition").

OCUFA and COU entered into agreements, effective 15 September 2014, with the Ministry of Training, Colleges and Universities ("MTCU"), pursuant to which MTCU provided funding to each of OCUFA and COU for the exploration of a model multi-employer jointly sponsored defined benefit pension plan in the University sector (the "New Plan").

OCUFA and COU also agreed that the development of a new plan would be an open and consultative process involving interested stakeholders[1] in the university sector, including bargaining agents and university pension plan sponsors, and so have held a number of plenary meetings and consultative sessions between October 2014 and May 2015 to solicit the views on essential questions of plan design and governance from the stakeholders.

The process has included extensive consultation, and the essential characteristics of a new plan are set out in this UPP Design Framework document and the June 22, 2015 Plenary Presentation (the "UPP Package").

It is anticipated that those university administrations and employee groups that participate in the next phase of this project will, after review and consideration of the UPP Package, direct the development of definitive documents.

In some cases, the discussions have expressly left certain issues to be determined by the participants in the next phase. Where this is the case, the outstanding issue is flagged as requiring additional stakeholder consideration.

C. Governance Elements for the New Plan

Below is a summary of essential governance elements of a multi-employer university sector JSPP.

I. SPONSORSHIP

1. The New Plan shall have two sponsors:

   (a) the Employee Sponsor, and

   (b) the Employer Sponsor.

   Collectively, the Employee Sponsor and the Employer Sponsor shall be referred to as the "Sponsors".

2. The Employee Sponsor shall be composed of a maximum of six persons.

3. The Employer Sponsor shall be composed of a maximum of six persons.

[1] It should be noted that non-unionized, non-represented members of university pension plans, and retirees were not directly consulted in this phase of the project. Two non-unionized, organized employee groups attended several Plenary meetings, but were not part of the Coalition.

4. The processes for establishing and maintaining the Employee Sponsor shall be determined by the Coalition[2], and the processes for establishing and maintaining the Employer Sponsor shall be determined by participating universities.

5. The Sponsors shall be exclusively responsible for fulfilling the following sponsorship duties and responsibilities in relation to the New Plan:

   (a) The design and amendment of plan benefits;

   (b) Implementing PBA required contribution changes, and determining changes to the contribution levels for other reasons;

   (c) Appointing members of the Board of Trustees;

   (d) Creation and amendment of the funding policy (including how funding deficits are to be addressed and surplus utilized, and whether to establish contingency reserves);

   (e) Creation and amendment of a risk appetite policy to articulate the Sponsors' risk tolerance;

   (f) Other duties and responsibilities that the Sponsors may determine.

6. The Sponsors shall meet twice per year, and, in addition, shall meet on at least 15 business days' notice at the request of either one of them.

7. The Sponsors shall discuss in good faith any issue raised by any of them with a view to resolving any issue in a mutually satisfactory way.

8. The Employee Sponsor shall exercise one vote and the Employer Sponsor shall exercise one vote on decisions within the scope of the sponsorship duties and responsibilities. The Sponsors may utilize mediation or arbitration procedures to assist them in reaching an agreement if they both agree to do so.

9. The Sponsors may retain third parties or hire employees to advise or support them, and the reasonable expenses associated with such persons shall be an expense of the New Plan fund.

10. The Sponsors shall meet with the administrator (i.e. the Board of Trustees) of the New Plan annually to receive an annual report from the administrator, which shall include annual updates on the plan's:

   (a) investment strategy and performance;

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[2] The issue of the involvement of those non-unionized, participating employee groups who are not represented within the Coalition remains and open one.

(b) administration strategy and performance;

(c) current funded status and funding projections.

In addition, the Sponsors shall meet with the administrator at any time, at the request of the administrator, on at least 15 business days' notice. As well, the administrator shall meet with the Sponsors at any time, at the request of the Sponsors, on at least 15 business days' notice.

II. PLAN ADMINISTRATION

11. The administrator of the New Plan, for purposes of the PBA and the ITA, shall be a Board of Trustees consisting of twelve members. The Trustees may decide to create an administration corporation, the directors of which shall be the same Trustees.

12. The Employee Sponsor shall appoint six members to the Board.

13. The Employer Sponsor shall appoint six members to the Board.

14. The Sponsors will agree on a set of Board member qualifications. Each member of the Board of Trustees shall have at least some of the following qualifications:

    (a) Knowledge of pensions, legislative and regulatory matters related to pensions, knowledge of investments and investment products, investment strategy particularly as related to pension investments, knowledge of pension governance issues and practices, knowledge of pension plan operations;

    (b) Experience serving on pension committees, or investment committees, for similar large funds will be preferred; and

    (c) A commitment to ongoing education and development is essential.

15. Each member of the Board of Trustees shall serve for a term of three years. A trustee may be reappointed for any number of terms, provided that the re-appointing Sponsor follows a documented process for considering the performance of the Trustee. The initial appointments to the Board of Trustees shall be for staggered terms.

16. The Board of Trustees shall meet at least four times per year, and upon the joint request of the Chair and Vice-Chair or of any four trustees.

17. The Board of Trustees shall have a Chair and a Vice-Chair. Each shall serve for a term of three years. The offices of Chair and Vice-Chair shall be allocated such that one office is held by a trustee appointed by the Employee Sponsor and the other office is held by a trustee appointed by the Employer Sponsor. At the end of their terms, the offices of Chair and Vice-Chair shall rotate.

18. The Board of Trustees shall be exclusively responsible for the administration of the New Plan, including the investment of the pension fund.

19. A quorum for the conduct of business at a meeting of the Board of Trustees shall consist of at least eight members participating in person or by telephone with at least three Trustees appointed by the Employee Sponsor and three Trustees appointed by the Employer Sponsor.

20. The Board of Trustees shall make decisions by majority vote at a duly called meeting of the Board.

21. In the event that a motion cannot be made at two consecutive duly called meetings of the Board of Trustees, or a vote on a motion is a tie vote, a dispute resolution procedure shall apply.

III. PLAN DESIGN

22. The New Plan shall be a defined benefit plan that is also a jointly sponsored pension plan, as those terms are defined in the PBA.

23. The New Plan shall provide the benefits as well as the transition options for hybrid and defined contribution pension plans.

24. Eligible Employers may join in the New Plan on terms and conditions prescribed by the Board of Trustees.

25. Contribution rates to the New Plan shall be set out in the New Plan, and may be amended by operation of the PBA or by agreement of the Sponsors. In setting contribution rates, the Sponsors shall have regard to the fairness of the contribution rates vis-à-vis the New Plan's benefit provisions and the above and below YMPE income levels of its contributors.

26. The New Plan shall contain the following provisions:

    (a) The New Plan may be amended only by the agreement of the Sponsors;

    (b) The New Plan may be terminated, wound up or merged or amalgamated with another pension plan only by the agreement of the Sponsors;

    (c) A Participating Employer may not terminate its participation in the New Plan for a period of [10] years following the first day that any of its employees commence to accrue future service. Thereafter, a Participating Employer may terminate its participation in the New Plan:

        (i) with the consent of each trade union representing employees of the Participating Employer who are members of the New Plan;

(ii) with the consent of the Board of Trustees and upon such terms as the Board of Trustees may stipulate.

IV. FUNDING POLICY

27. The Sponsors shall adopt and may amend a Funding Policy for the New Plan.

28. The Funding Policy shall conform to CAPSA and other applicable regulatory requirements governing funding policies in general, and, in particular, shall address the following issues:

    (a) the allocation of deficiency or unfunded liability contributions between employers and members;

    (b) the treatment of deficits and surpluses under the New Plan;

    (c) the treatment of future gains and losses on past service liabilities;

    (d) the creation of contingency reserves;

    (e) such other matters as the Sponsors consider appropriate.

V. TRANSITION

29. In order to develop definitive documentation for the New Plan, those participating in the finalization of the design phase of this project, who elect thereafter to implement the New Plan, would establish transitional sponsors (consisting of between 4 and 6 persons), one half of whom shall be selected by the relevant employee groups and the other half by the University administrations.

30. In order for an Employer to participate in the New Plan, the Employer:

    (a) must meet all legislative and local collective bargaining requirements with respect to its unions, faculty associations, and any other groups with bargaining rights;

    (b) must have entered into an asset transfer agreement with the Sponsors;

    (c) the requirements of the PBA for a conversion and asset transfer must be satisfied.

31. The New Plan will provide for replication of all past service benefits to the extent practicable and permissible under applicable income tax and pension standards rules.

D. Funding Risk and Management Considerations

Representatives from COU and OCUFA have had preliminary discussions about the following four elements of a funding and risk management structure. Definitive agreements concerning these issues will be required in the next stage of the project:

- Sharing of Initial Contributions for Future Service Benefits (benefits earned under the new JSPP);
- Sharing of Funding Risk for Future Service Benefits (benefits earned under the new JSPP provisions);
- Funding Risk Management Levers for Future Service Benefits;
- Full Funding of Going Concern Deficits at Inception for Past Service Benefits (benefits being transferred into the JSPP) and Treatment of Subsequent Gains and Losses.

I. SHARING OF INITIAL CONTRIBUTION RATES FOR FUTURE SERVICE BENEFITS

This refers to the sharing of the 18% to 20% initial current service cost that is reflected in the Summary of Illustrative Plan terms.

The appropriate allocation of the New Plan's current service cost as between the members and the Universities (or the allocation of gains and losses with respect to past service, as set out below) – will be determined by the participants in the next phase of the project.

COU has proposed a 50% / 50% sharing of the total initial contribution rate; the Coalition proposed that the contribution split be determined through local negotiations with a maximum split of 45% / 55%. This is an issue to be resolved in the next phase of the project.

II. SHARING OF FUNDING RISK FOR FUTURE SERVICE BENEFITS

The sharing of funding risk is, in principle, a separate issue from the sharing of the new plan's current service cost. Risk sharing in the JSPP would be set out in sponsor agreements.

III. FUNDING RISK MANAGEMENT LEVERS FOR FUTURE SERVICE BENEFITS

In any pension plan, to the extent that there is a funding shortfall under a filed actuarial valuation, that shortfall has to be addressed through an increase in member and employer contributions and/or a decrease in the benefits being earned in the future. The parties agree that a funding policy, to be developed in the next phase, will consider various ways to address deficiencies in addition to the default mechanism of increased member and employer contributions.

IV. FULL FUNDING OF GOING CONCERN DEFICITS AT INCEPTION FOR PAST SERVICE BENEFITS (BENEFITS BEING TRANSFERRED INTO THE JSPP) AND TREATMENT OF SUBSEQUENT GAINS AND LOSSES

COU was tasked with operationalizing one of the original principles of this project – that the JSPP be fully funded with respect to past service going concern deficits at the time of its inception (see Appendix A). To the extent that any alternatives to achieve this implicate the New Plan, the initial participants will determine whether the options are acceptable.

There is broad agreement that initial going concern deficits will be determined for each participating university based on the same actuarial assumptions as used for the setting of contribution rates for future service benefits (these assumptions would be set by the JSPP Board of Trustees).

E. Plan Provisions

Summary of Model Plan Provisions

(Plenary directed the consulting actuaries to develop plan options in the range of 18% to 20%)

*note the data set and assumptions used for this chart can be found in [Appendix B]

Plan Provisions	18% Plan	20% Plan
Averaging Period for Earnings and YMPE[1]	60 months	
Benefit Rate per Year of Service on FAE[2] **up to AYMPE**[3]	1.50%	1.65%
Benefit Rate per Year of Service on FAE in excess of AYMPE	2.00%	
Bridge Benefit per Year of Service	0.50% of FAE up to AYMPE	0.35% of FAE up to AYMPE
Maximum Pension	Indexed Income Tax Act maximum pension (Applied before early retirement reductions)	
Subsidized Form of Payment With spouse	Life guaranteed 10 years	60% Survivor benefit
Subsidized Form of Payment Without spouse	Life guaranteed 10 years	
Eligibility for Unreduced Early Retirement	Age 60 + 80 points (age + continuous service)	85 points (age + continuous service)
Reduced Early Retirement	5% per year from Unreduced Early Retirement Date	Without 85 points, 5% penalty per year from age 65

Indexation in Deferral Period	None	
<u>Indexation After Pension Commencement</u> **Rate of indexation**	75% of increase in CPI	
<u>Indexation After Pension Commencement</u> **Maximum increase**	Maximum increase in CPI of 5%	None
<u>Indexation After Pension Commencement</u> **Conditional or guaranteed indexing**	Funded, but conditional	Guaranteed
Disability Benefits	Continued accrual, employee contributions not required	
Interest rate on member contributions	CANSIM rates per *Pension Benefits Act*	

Notes:

1. YMPE = Year's Maximum Pensionable Earnings under the CPP ($53,600 in 2015)
2. FAE = Final Average Earnings, the average of pensionable earnings over the indicated period
3. AYMPE = average YMPE, the average of the YMPE over the indicated period

Open Issues with Respect to Plan Provisions

Plan Provision	Open Issue
Eligibility	• Proposed plan will include all current members of existing pension plans at participating universities • The proposed JSPP will be designed in such a way as to permit expansion of coverage to classes of employees not currently participating in pension plans • Joint COU / Coalition researching options to achieve this
Cost sharing	• Agreement on cost sharing for future accruals • No agreement on allocation • COU proposes 50% / 50%; Coalition proposes that the contribution split be determined through local negotiations with a maximum split of 45% / 55%
Risk sharing	• Agreement on risk sharing • Tied to discussion on cost sharing
Responsibility of future experience on past service liabilities and assets	• In SEPPs, employers are wholly responsible for future gains and losses on past service; in JSPPs this responsibility is generally shared • No agreement on ownership of future experience gains and losses on past service • If gains and losses on past service are eventually shared, parties to determine length of transition period
Early retirement benefits	• Agreement that JSPP is to provide subsidized early retirement benefits • COU does not support an unreduced pension with 85 points without a minimum retirement age
Indexing	• Agreement on JSPP providing indexing to pensions in pay, and should be funded • No agreement as to whether it is conditional and whether there is a cap • Under conditional indexing, pensions will be indexed provided that there is no negative experience – indexing is not ad hoc
Hybrid plans	Joint COU / Coalition researching options for transition of hybrid benefits into JSPP
DC plan	Joint COU / Coalition researching options for transition of DC benefits into JSPP

Note that the actuarial assumptions and data used to cost the UPP plans can be found in Appendix B.

F. Open Issues List

Below is the proposed treatment of open issues raised by stakeholders through the feedback process:

1. Transition of past service for hybrid and DC plans: Development of proposals in process. To the extent that they require amendments to an existing act or regulation, they represent possibilities that may or may not come to pass.

2. Contract faculty: there will be provisions in the plan for contract faculty to participate in the New Plan. The proposals are in development and will be forthcoming.

3. Maintenance of contribution rates: Stability of contribution rates has been identified by some stakeholders as an important goal. Further assessment concerning the long term stability of contribution rates is needed in the next phase of the project.

4. Risk tolerance: A risk tolerance policy will be developed by the Sponsors in the next phase of the project.

5. ORPP: In the next phase, it will be necessary to consider what implications the introduction of the ORPP in Ontario will have on the New Plan, if any.

6. Grow-in benefits: It will be necessary to address whether the New Plan will opt out of grow-in benefits as this decision will affect the cost (and therefore, potentially, the design) of subsidized early retirement benefits.

7. Solvency funding: It is an expectation that the New Plan will contain a solvency funding exemption applicable not only to the initial participants but to all those who subsequently join the New Plan.

8. Supplemental plans: Parties involved in the finalization of the design will have to address what (if any) supplemental plans will be included in the New Plan.

G. Finalizing the Design Phase

To date, OCUFA and COU have each engaged in broad consultation with interested faculty associations, unions, and university administrations, and the feedback achieved through these avenues has been critical to developing the UPP Package. It is anticipated that interested institutions and employee groups within the university sector will review the UPP Package in detail in order to determine whether they wish to participate in the next phase of the project – the Build phase.

Before the Build phase can begin, outstanding plan details as outlined in this UPP Design Framework document must be finalized.

Finalizing the design phase is complex and involves significant labour relations, pension, and university operational/cultural questions. The design finalization process will be open to those universities where there is a local process or partnership for contemplating transition to a JSPP. The local process will include the administration, local employee groups, including the faculty association, and other unions, as the case may be.

In order to meet the needs of local pension initiatives underway on some campuses, it is recommended that the design finalization process commence early in the fall of 2015 and conclude no later than November 30, 2015. It is further recommended that it draw on the assistance of a facilitator or mediator acceptable to those involved and that it begin with an intensive two-day meeting. Full details of this process will be shared shortly.

APPENDIX A: PRINCIPLES DOCUMENT

The principles document was adopted by OCUFA, COU and the Coalition at the outset of the project and has been shared with MTCU.

Jointly Shared Principles for the Establishment of a University Sector JSPP

Context

As part of the pension research mandate of COU and OCUFA, the Ministry of Training, Colleges and Universities has established a provincial working group to share the results of on-going research, and discuss the development of a straw model for a university sector JSPP. The working group has met three times to date, with the expectation of three further meetings before the OCUFA and COU research contracts conclude at the end of March.

At the June and September working group meetings, COU presented a plan design and costing model for a sector-wide JSPP. OCUFA and the other university unions (the Union Coalition) are actively engaged in completing both a sustainability analysis of the existing plans (the research project for which we have received MTCU funding) as well as an options paper on future directions for the sector. One option under development is a model JSPP for the university sector.

The issues that will need to be resolved in order to establish a sector-wide plan are many, and complex. (COU has provided the Coalition with a draft document "Principles of University Pension Plan Design-Questions" for consideration and response at its next meeting.) Further, the process itself for the development of a JSPP needs clarification and development. In the interest of moving our research projects forward, OCUFA and COU met to determine whether there were shared principles that we could present to government as a necessary foundation for future discussions on the development of a university sector JSPP.

Principles

1. Participation in a sector-wide or multi-employer JSPP, as defined by the *Pension Benefits Act*, will be voluntary and open to all pension plan types and all employee groups.

    - Existing university pension plans are generally subject to collective bargaining, and pension rights are embedded in collective agreements negotiated locally. Collective bargaining and local decision-making processes are the legitimate means for determining the future direction of Ontario university pensions.

2. A university-sector or multi-employer JSPP will be non-statutory.

    - The plan should be established through a process of negotiation between the parties who will be joining the plan (or agents of the parties).

- The government would need to provide legislation of general application to facilitate the framework for the creation of such a plan.

3. A university-sector or multi-employer JSPP will receive an exemption from solvency valuations and funding.

    - This is the funding basis for all of the public sector JSPPs currently in existence.

    - This would be in keeping with the government’s objective to support efforts to convert single-employer plans to jointly-sponsored plans.

4. A university-sector or multi-employer JSPP will include a guaranteed formula pension.

    - This principle currently holds for all existing defined benefit and hybrid university pension plans, with the exception of the defined contribution plans.

5. A university-sector or multi-employer JSPP will be fully funded on a going concern basis at inception.

    - This is a necessary pre-condition for establishing a fair relationship between the parties entering the plan (between universities and plan members and between each of the universities).

    - This provides a foundation for the parties to negotiate how future gains and losses on the liabilities and assets transferred into the JSPP are treated for funding purposes in the ongoing JSPP.

    - The sector will act to develop a full funding strategy, with the assistance of the government as necessary.

Potential Benefits and Implications of Transition

6. Under this new equal partnership arrangement, each of the parties involved (plan members and their representatives, plan sponsors and administrators, and government) need to understand the potential benefits and negative implications of any proposal to create a university-sector or multi-employer JSPP, so that an informed decision as to whether or not to proceed can be made.

    - All data that is being used to inform decision-making will be made available to the parties involved.

APPENDIX B: ACTUARIAL ASSUMPTIONS USED TO COST UPP MODELS

The actuarial basis used for costing purposes assumes that the fund's assets will be invested in a broad mix of different classes of investments (stocks, bonds, real estate, infrastructure, etc.) both domestically and globally. There are no contingency reserves incorporated in the actuarial basis, but there is what would be considered a moderate level of conservatism incorporated in the assumptions.

Economic Assumptions		
Increase in Consumer Price Index (CPI)		2.00% per year
Increase in Year's Maximum Pensionable Earnings ($53,600 in 2015)		3.00% per year (CPI + 1.00%)
Increase in *Income Tax Act* Maximum Pension ($2,818.89 per year of service in 2015)		3.00% per year (CPI + 1.00%)
Increase in Salaries		4.25% per year (CPI + 2.25%[3])
Discount Rate (Expected Investment Return)		5.75% per year (CPI + 3.75%)
Interest Rate on Participant Contributions		2.50% per year
Loading For Administrative Expenses		Implicit in expected investment return
Demographic Assumptions		
Retirement Rates		See Table A
Termination Rates		See Table B; 50% elect deferred pension and 50% elect commuted values[4]
Disability Rates		None assumed

[3] Reflects progression through the ranks, movement through grid steps and merit/promotions

[4] Commuted values based on increase in CPI of 2.00% per year and nominal discount rate of 3.50% per year (i.e., assumed long-term real interest rate of 1.50% per year)

Mortality Rates		95% of the rates under the CPM 2014 Public Mortality Table With Improvement Scale B (no adjustment made based on size of pension)
Percentage With Spouse		Male participants: 85% with spouse at retirement four years younger Female participants: 75% with spouse at retirement two years older

TABLE A: RETIREMENT RATES

FACULTY

- 2% from ages 55 through 59 inclusive
- 5% from ages 60 through 64 inclusive
- 30% from ages 65 through 68 inclusive
- 50% from ages 69 through 70 inclusive
- 100% at age 71

- Additional 5% at first age eligible for an unreduced pension before 65

Percentage retired before age 65: 33.7%

Percentage retired at ages 65 and 66: 33.8%

Percentage retired after age 66: 32.5%

STAFF

- 2% from ages 55 through 59 inclusive
- 7% from ages 60 through 64 inclusive
- 50% from ages 65 through 67 inclusive
- 100% at age 68

- Additional 15% at first age eligible for an unreduced pension before 65

Percentage retired before age 65: 47.3%

Percentage retired at ages 65 and 66: 39.5%

Percentage retired after age 66: 13.2%

TABLE B: TERMINATION RATES
PER 1,000 PARTICIPANTS

Age	Rates		Age	Rates
20	150		35	48
21	150		36	45
22	150		37	42
23	150		38	39
24	150		39	36
25	150		40	33
26	135		41	31
27	120		42	30
28	107		43	28
29	95		44	26
30	84		45	24
31	75		46	22
32	68		47	20
33	60		48	18
34	54		49	16
			50	14
			51	12
			52	10
			53	8
			54	6

MEMBERSHIP DATA USED TO COST UPP MODELS

The Plan membership and asset data used in the valuation were compiled as at July 1, 2014. They reflect plan membership in a representative range of Ontario universities.

The membership data used in the valuation may be summarized as follows:

MEMBERSHIP DATA SUMMARY

	Faculty	Staff
Active Members		
Number	8,782	17,315
Average pensionable earnings	$135,600	$68,691
Average years of credited service	13.5 years	12.7 years
Average age	50.1	46.9
Members on leave of Absence		
Number	169	493
Average pensionable earnings	$146,800	$54,900
Average years of credited service	13.5 years	9.8 years
Average age	47.1	43.4
Members on Long Term Disability		
Number	53	491
Average pensionable earnings	$119,000	$55,600
Average years of credited service	20.9 years	21.2 years
Average age	56.3	54.8

DISTRIBUTION OF MEMBERS AS AT JULY 1, 2014

	Males			Females		
Age	Number of Members	Years of Continuous Service	Pensionable Earnings	Number of Members	Years of Continuous Service	Pensionable Earnings
			$			$
<25	49	87.67	2,405,462	72	134.08	3,621,357
25-30	356	1,074.33	21,695,762	709	2,271.42	39,636,392
30-35	930	4,576.67	69,144,286	1,433	7,360.00	96,371,379
35-40	1,429	9,662.75	126,365,191	1,875	13,552.33	143,010,287
40-45	1,698	14,893.83	169,412,012	2,084	18,995.25	170,311,653
45-50	1,821	21,322.33	193,160,731	2,274	27,871.25	186,513,593
50-55	1,991	29,957.08	210,681,059	2,612	40,057.75	214,051,371
55-60	1,818	34,994.75	201,564,346	2,287	43,335.00	193,757,106
60-65	1,364	30,256.58	162,558,451	1,462	30,944.83	124,416,521
>65	626	16,709.58	93,501,653	413	9,304.58	43,876,184
Total	12,082	163,535.58	1,250,488,952	15,221	193,826.50	1,215,565,844

Average age: 48.1

Average service: 13.1