Pension Plan for the Employees of Concordia University

Actuarial valuation
as at December 31, 2024

Retraite Québec: #21638
Canada Revenue Agency: #0281121

October 7, 2025

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Summary of results

Financial positions

Financial position under the going concern basis

	December 31, 2024 ($000)	December 31, 2022 ($000)
General Account	1,429,278	1,314,397
Liabilities	(1,563,719)	(1,381,558)
Actuarial surplus (unfunded liability)	(134,441)	(67,161)

Financial position under the solvency basis

	December 31, 2024 (%)	December 31, 2022 (%)
Solvency ratio	90.4	91.1

Contribution requirements

Deficit amortization payments starting as at January 1, 2025

	2025 to 2027 ($/month)
From the stabilization fund	1,166,600
From the employer	-

The deficit amortization payments reflect the December 31, 2024 plan amendment regarding the conversion of the reserve into a stabilization fund, as allowed under Article 40 of the *Regulation respecting the funding of defined-benefit pension plans of the municipal and university* sectors. Also, as per recent changes to the Funding Policy and following article 51 of the same Regulation, deficit amortization payments are no longer deferred when paid via the stabilization fund.

Current service and stabilization contribution

	2026 to 2028 (December 31, 2024 valuation)	2025 (December 31, 2022 valuation)
Required contributions	17.96%	18.07%
Current service	16.47%	16.54%
Stabilization	1.49%	1.53%
Members' contribution formula in % (below YMPE/above YMPE)	7.6% / 9.1%	7.6% / 9.1%
Employer's contribution formula (as a % of members' contribution)	122.22%	122.22%

Introduction and Actuarial Opinion

Background

At the request of the Pension Committee of the Pension Plan for the Employees of Concordia University (hereinafter referred to as the "Pension Committee" and the "Plan"), we are pleased to submit our report on the actuarial valuation of the Plan as at December 31, 2024.

The last actuarial valuation of the Plan was carried out on December 31, 2022. Since then, there have been amendments to the Plan, mainly to convert the “Reserve” in a “Stabilization Fund”; furthermore, numerous new collective agreements have been renewed with unions leading to salary increases exceeding the actuarial assumptions. Additional details are presented later in the current section.

Objectives

The report presents the results of the actuarial valuation on the following two bases:

- The "going concern basis," which implicitly assumes that the Plan will continue indefinitely. The continuity valuation is performed to estimate the minimum funding requirements.
- The "solvency basis," which simulates what the Plan's financial position would have been on the valuation date if the Plan had been terminated on that date.

The objectives of this actuarial valuation report are as follows:

- To present the financial position under the going concern and solvency approaches as at December 31, 2024;
- To determine the minimum contributions required under the *Quebec Supplemental Pension Plans Act* and its regulations (hereinafter referred to as the "Act") and the USPP Act for the period from January 1, 2025 until the date of the next valuation, which must be carried out no later than December 31, 2027; and
- Provide the actuarial certifications required under the Act and the *Income Tax Act*.

Terms of the mandate

Under the terms of the mandate entrusted to us by the Pension Committee, no margin for adverse deviations or other factors should be taken into account in the actuarial assumptions, with the exception of the margin described below:

- A margin for adverse deviations of 0.6% in the discount rate assumption for the calculation of the liability and current service contribution under the going concern approach.

Note that a margin for adverse deviations of 0.5% was used for the December 31, 2022 actuarial valuation and no other margins in actuarial assumptions were used elsewhere.

Use of the report

This report has been prepared for the Pension Committee and the government authorities responsible for supervising registered pension plans, Retraite Québec and the Canada Revenue Agency.

The intended users of this report are the Pension Committee, Concordia University (hereinafter the “Employer” or the “University”) and the relevant government authorities.

This report is not intended for any purpose other than those listed above. Any party reviewing this report for other purposes should seek the assistance of its own actuary or other qualified professional in reviewing it to ensure that it understands the assumptions, results, and uncertainties inherent in our estimates.

An actuarial valuation report is a measure of the estimated financial position at a specific date. It does not predict the future financial position of the Plan or determine whether the pension fund assets will be sufficient to pay the benefits provided at any time in the future.

The results presented in this report are estimates only, as they are based on actuarial assumptions. The Plan's actual experience will differ from the assumptions and will result in gains or losses that will be disclosed in subsequent valuations.

Significant changes since the last valuation

The last full actuarial valuation of the Plan was carried out on December 31, 2022.

On February 22, 2024, the new *Regulation respecting the financing of defined benefit pension plans in the municipal and university sectors, RLRQ c R-15.1, r 1.3* (hereinafter the "Municipal-University Regulation") came into force. This Regulation amends, among other things, certain funding rules for actuarial valuations after December 30, 2023. More specifically for the Plan: the terms and conditions for calculating the provision for adverse deviations and the amortization period for technical actuarial deficits.

The Pension plan was amended, effective as at December 31, 2024. The main amendment was the conversion of the “Reserve” to a “Stabilization Fund”.

- The Stabilization Fund will finance 100% of the required amortization payments (via a transfer from the Stabilization Fund to the General Account).
- As per the new regulations adopted in February 2024, actuarial deficits are progressively amortized over a 10-year period (instead of a 15-year period). As at December 31, 2024, actuarial deficits are amortized over a 14-year period.

The Funding Policy was also modified to indicate which contributions are deferred by one year and which contributions become effective at the valuation date.

- Changes in the current service contributions and associated stabilization contributions are still deferred (hence, the new rates will be effective as at January 1, 2026).
- Amortization payments that can't be fully paid via a transfer from the Stabilization Fund are also deferred.
- Amortization payments that can be fully paid via a transfer from the Stabilization Fund are not deferred (hence, the new amortization contributions will be effective as at January 1, 2025 and will be paid via a transfer from the Stabilization Fund).

Subsequent events

To the best of our knowledge and based on our discussions with the Pension Committee and the University, there have been no events other than those described above between the valuation date and the date this report was completed that would have had a material impact on the results of the valuation as of December 31, 2024.

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Actuarial opinion

This opinion is part of the actuarial valuation report for the Pension Plan for the Employees of Concordia University as at December 31, 2024.

In our opinion:

- This valuation complies with the funding and solvency standards prescribed by the *Supplemental Pension Plans Act*;
- The participant data on which the valuation is based is sufficient and reliable for the purposes of the valuation;
- The assumptions are appropriate for the purposes of the valuation;
- The methods used in the valuation are appropriate for the purposes of the valuation; and
- We have prepared this report and expressed the opinions contained herein in accordance with generally accepted actuarial practice in Canada.

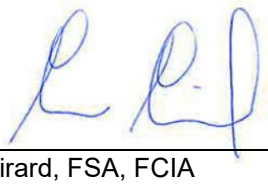
The calculations made in this valuation are in accordance with section 147.2(2) of the *Income Tax Act* (Canada). The restrictions on past service benefits prior to 1990 set out in subsection 8504(6) of the Income Tax Regulations do not apply to any of the Plan members.

Notwithstanding the foregoing opinion, emerging experience differing from the assumptions will result in gains or losses which will be revealed in future valuations.

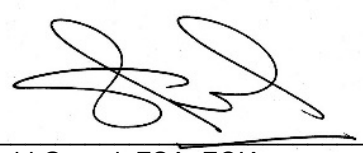
The next full actuarial valuation must be completed no later than December 31, 2027.

We remain available to provide any further information or clarification regarding this report.

Yours sincerely,



Gino Girard, FSA, FCIA



David Gravel, FSA, FCIA

October 7, 2025

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Section 1 – Going concern valuation

The valuation under the going concern approach is performed on the assumption that the Plan will continue indefinitely. The results in this section are based on:

- A summary of the provisions of the Plan – Appendix A
- The actuarial methods and assumptions – Appendix B
- A summary of participant data – Appendix D
- Information on assets – Appendix E

Under the going concern approach and the rules applicable as at December 31, 2024 assets and liabilities exclude the value of guaranteed pensions.

Financial position

The following table presents the financial position on a going concern basis as at December 31, 2024, as well as the results of the previous valuation for comparison purposes.

Financial position under the going concern basis

	December 31, 2024 ($000)	December 31, 2022 ($000)
Actuarial value of assets[1]		
General account	1,429,278	1,314,397
Reserve – after Plan experience	166,590	160,689
Total	1,595,868	1,475,086
Actuarial liabilities		
Full-time active contributory members	720,685	622,508
Full-time active non-contributory members	3,411	7,167
Part-time active contributory members	38,818	32,630
Part-time active non-contributory members	674	650
Disabled members	16,725	10,508
Retired members and beneficiaries	732,933	675,113
Terminated vested members	49,927	32,550
Additional voluntary contributions	546	432
Total	1,563,719	1,381,558
Actuarial surplus (unfunded liability) – General Account	(134,441)	(67,161)
Actuarial surplus (unfunded liability) – Total assets	32,149	93,528
Funding level – General Account	91.4%	95.1%

[1] Market value of non-insured assets adjusted for amounts payable and receivable.

Change in actuarial surplus (deficit)

The following table presents the various factors that have had an impact on the change in the actuarial surplus (deficit) since the date of the previous valuation.

Reconciliation of actuarial surplus (deficit) since the previous valuation

	($000)	($000)
Actuarial surplus (unfunded liability) as at December 31, 2022		(67,161)
Expected changes in funded status		
Interest on surplus (unfunded liability)	(8,159)	
Amortization payments – Employer (with interest)	8,288	
Amortization payments – Transfer from reserve (with interest)	8,288	
Stabilization contribution (with interest)	11,438	
Total		19,855
Expected surplus (unfunded liability) as at December 31, 2022		(47,306)
Actuarial gain (losses) due to the following factors		
Investment return on actuarial value of assets	(43,837)	
Increase in pensionable earnings and YMPE	(55,229)	
Retirement and termination of employment	15,441	
Mortality	1,674	
Indexation	(10,297)	
Data corrections	5,200	
Other factors	(87)	
Total		(87,135)
Actuarial surplus (unfunded liability) as at December 31, 2024 – before transfer to the reserve		(134,441)
Transfer of technical gain from the general account to the reserve		0
Actuarial surplus (unfunded liability) as at December 31, 2024 – after transfer to the reserve		(134,441)

Reserve and General Account – before Plan amendment

Prior experience of the Plan

The value of the reserve, before plan experience, is $166,590,000 as at December 31, 2024.

The following table describes the changes in the level of the reserve since the last valuation before plan experience.

Reconciliation of the reserve before plan experience

	2024 ($000)	2023 ($000)
Reserve – beginning of year	159,815	160,689
Transfer from the reserve to the general account	(3,057)	(4,754)
Return net of fees	9,832	3,880
Reserve – end of year	166,590	159,815

The following table presents the breakdown the market value of assets before plan experience.

Market value of assets breakdown before plan experience

	December 31, 2024 ($000)
Market value of going concern assets	1,595,868
Reserve – before plan experience	166,590
General account – before plan experience	1,429,278

After experience of the Plan

The following table presents the calculation of the reserve as at December 31, 2024 after plan experience.

Reconciliation of the reserve after plan experience as at December 31, 2024

	($000)	($000)
Reserve before plan experience		166,590
Determination of technical gains (losses)		
Actuarial gains (losses)	(75,728)	
Additional contributions (to be subtracted)	(11,438)	
Other gains (to be subtracted)	(526)	
Technical gains (losses)	(87,692)	
Transfer from the general account to the reserve		0
Reserve after plan experience		166,590

Determination of actuarial gains

	($000)
General account before plan experience	1,429,278
PLUS Present value of remaining amortization payments	58,713
MINUS Actuarial liabilities	1,563,719
Actuarial gains (losses)	(75,278)

The following table presents the breakdown the market value of asset after plan experience.

Market value of assets breakdown after plan experience

	December 31, 2024 ($000)
Market value of going concern assets	1,595,868
Reserve – after plan experience	166,590
General account – after plan experience	1,429,278

Conversion of the General Account to a Stabilization Fund

The Pension plan was amended, effective as at December 31, 2024. The main purpose of the amendment was the conversion of the "Reserve" to a "Stabilization Fund" as permitted by Article 40 of the *Regulation respecting the funding of defined-benefit pension plans of the municipal and university* sectors.

Financial position – After conversion

The following table presents the financial position on a going concern basis after conversion as at December 31, 2024.

Financial position under the going concern basis – after conversion

	December 31, 2024 ($000)
Actuarial value of assets[1]	
General account	1,429,278
Stabilization Fund	166,590
Total	1,595,868
Actuarial liabilities	
Full-time active contributory members	720,685
Full-time active non-contributory members	3,411
Part-time active contributory members	38,818
Part-time active non-contributory members	674
Disabled members	16,725
Retired members and beneficiaries	732,933
Terminated vested members	49,927
Additional voluntary contributions	546
Total	1,563,719
Actuarial surplus (unfunded liability) – General Account	(134,441)
Actuarial surplus (unfunded liability) – Total assets	32,149
Funding level – General Account	91.4%

[1] Market value of non-insured assets adjusted for amounts payable and receivable.

Provision for adverse deviations

The different elements used for the calculation of the provision for adverse deviations is presented in the following table.

Provision for adverse deviation

	December 31, 2024
Actuarial liabilities attributable to retirees[1]	
Retirees (R)[2]	$854,883,000
Other members (S)	$908,068,000
Value of asset invested in fixed income (V)	$540,879,000
Duration (years)	
Retirees' actuarial liabilities (dR)	9.1
Fixed income securities (dM)	4.4
Adjusted spread of durations (D)[3]	6.3
Provision for adverse deviations[4]	
Retirees	$94,251,000
Other members	$63,565,000
Total	$157,816,000

[1] Excluding voluntary contributions and the value of all insured annuity contracts.

[2] Excluding non-retired participants who are less than 10 years of age below normal retirement age.

[3] D = Absolute value of $(R \times d^R - V \times d^M) / R$,
where V = Min. (R; Value of assets invested in fixed income securities)

[4] PED = T x R + 7% x S + X, where T = 1.75% x D and X = (R – V) x Max. (0; 7% - T)

Surplus assets

The surplus as at December 31, 2024, in accordance with the minimum requirements of the Act, before consideration of any changes valued for the first time, is the difference, if any, between:

- The market value of the assets ($1,595,868,000); and
- The sum of the actuarial liabilities ($1,563,719,000) and the provision for adverse deviations ($157,816,000).

The surplus assets as of December 31, 2024 are zero.

Current service cost

The annual cost of benefits under the going concern approach for services after the valuation date is called the "current service cost." Current service cost is the amount required from the employer and active participants to provide for the eventual payment of refunds and benefits under the Plan for services rendered during a Plan year.

The current service cost as a percentage of total payroll is 16.47 % as at December 31, 2024 (16.54 % as at December 31, 2022).

The following table presents the various factors that have had an impact on the change in the cost of current service since the previous valuation date.

Reconciliation of current service contribution since previous valuation (as a percentage of total payroll)

	Current service contributions
At December 31, 2022	16.54
Changes in assumptions	-
Other items	(0.07)
At December 31, 2024	16.47

Sensitivity analysis

The table below shows the impact on the going concern liabilities as of December 31, 2024 of a 1% reduction in the discount rate, with all other assumptions remaining unchanged.

Sensitivity of the going concern liabilities as of December 31, 2024 to a 1% reduction in the discount rate

	Impact
Increase in going concern liabilities (in $)	+ 218,646,000
Increase in going concern liabilities (in %)	+ 14.0

The table below shows the impact on the current service cost as at December 31, 2024 of a 1% reduction in the discount rate, with all other assumptions remaining unchanged.

Sensitivity of current service cost as at December 31, 2024 to a 1% decrease in the discount rate

	Impact
Increase in current service cost (in $)	+ 12,202,000
Increase in current service cost (in %)	+ 24.3

Section 2 – Solvency valuation

The objective of a solvency valuation is to determine what the financial position of the Plan would have been on the valuation date if the Plan had been terminated on that date. The solvency valuation is required by the Act. The results in this section are based on:

- A summary of the provisions of the Plan – Appendix A
- The actuarial methods and assumptions – Appendix B
- A summary of participant data – Appendix D
- Information on assets – Appendix E

Under the solvency approach and the rules applicable as at December 31, 2024 assets and liabilities include the value of guaranteed pensions.

Financial position

The following table presents the Plan's financial position on a solvency basis as at December 31, 2024, as well as the results of the previous valuation for comparison purposes.

Solvency funded status

	December 31, 2024 ($000)	December 31, 2022 ($000)
Solvency assets		
Solvency assets[1,2]	1,593,826	1,473,102
Solvency liabilities		
Full-time active contributory members	780,865	694,765
Full-time active non-contributory members	3,887	7,320
Part-time active contributory members	50,427	42,411
Part-time active non-contributory members	896	854
Disabled members	20,845	13,358
Retired members and beneficiaries	855,241	818,053
Terminated vested members	51,148	40,388
Additional voluntary contributions	546	432
Total	1,763,855	1,617,611
Assets less liabilities on the solvency basis	(170,029)	(144,509)
Degree of solvency	90.4%	91.1%

[1] Net of a provision for expenses equal to $2,400,000 and adjusted for amounts payable and receivable.

[2] Including insured annuity contracts established at $358,000 at December 31, 2024 and at $416,000 at December 31, 2022.

Sensitivity analysis

The table below shows the impact on the solvency liabilities as of December 31, 2024 of a 1% reduction in the discount rate, with all other assumptions remaining unchanged.

Sensitivity of solvency liabilities as at December 31, 2024 to a 1% reduction in the discount rate

	Impact
Increase in solvency liabilities (in $)	+ 231,022,000
Increase in going concern liabilities (in %)	+ 13.1

Solvency incremental cost

In accordance with the Canadian Institute of Actuaries' Standard of Practice, we have estimated the incremental cost of the solvency liabilities as at December 31, 2024. This is the expected aggregate change in solvency liabilities between December 31, 2024 and December 31, 2027 and it is based on the assumptions presented in Appendix C.

The incremental cost as at December 31, 2024 is $256,507,800. The incremental cost does not impact the funding requirements of the Plan under the Act and is for information purposes only.

Section 3 – Required contributions

Under the specific funding rules for university sector pension plans and as per Plan provisions cost-sharing arrangement, the requirements for contributions to be made by the employer and/or participants are summarized as follows:

For years of service before January 1, 2016

- Amortization payments
  - The actuarial deficit in the general account as of the valuation date must be funded by monthly amortization payments. As per the new regulations adopted in February 2024, actuarial deficits are progressively amortized over a 10-year period (instead of a 15-year period). As at December 31, 2024, actuarial deficits are amortized over a 14-year period;
  - Starting December 31, 2024, the balance of the stabilization fund must be used to pay 100% of the required amortization payments; and
  - Any residual amortizations payments (after use of the stabilization fund) are payable by the employer.

For years of service starting January 1, 2016

- Current service contributions
  - Current service contributions are payable in accordance with a cost-sharing arrangement of 45% for employees and 55% for the employer.
- Stabilization Contributions
  - Since January 1, 2018, stabilization contributions equal to 10% of the current service cost (calculated without margin for adverse deviation) are payable 45% by employees and 55% by the employer.
- Amortization payments
  - As per the new regulations adopted in February 2024, actuarial deficits are progressively amortized over a 10-year period (instead of a 15-year period). As at December 31, 2024, actuarial deficits are amortized over a 14-year period;
  - The stabilization fund is used to pay the technical deficit monthly payments related to this deficit;
  - Any residual amortizations payments (after use of the stabilization fund) are payable 45% by employees and 55% by the employer.
- As per regulations, contributions subject to a cost-sharing arrangement apply from January 1 of the year following the submission of a new actuarial valuation.

The contributions shown below are required until the filing of the next complete actuarial valuation, which must be no later than December 31, 2027.

Current service contribution

The annual cost of benefits under the funding approach for service after the valuation date is called the "current service contribution". The current service contribution is the minimum amount that must be paid by active members and the employer to cover any reimbursements and benefits provided by the Plan in respect of service performed during a Plan year.

The following table shows the cost of the current service contribution following this actuarial valuation as at December 31, 2024, but based on the 2026 payroll to reflect the contribution deferment. This contribution is shared between the employer (55%) and the active members (45%). The results of the previous valuation are also shown for comparison purposes.

Current service contribution

	December 31, 2024		December 31, 2022	
	$	% of payroll	$	% of payroll
Current service contribution - Total				
Full-time contributory members	56,705,000		51,345,000	
Part-time contributory members	5,477,000		2,959,000	
Total	62,182,000	16.47	54,304,000	16.54
Current service contribution - Employees				
Full-time contributory members	25,517,000		23,105,000	
Part-time contributory members	2,464,000		1,322,000	
Total	27,981,000	7.41	24,427,000	7.44
Current service contribution - Employer				
Full-time contributory members	31,188,000		28,240,000	
Part-time contributory members	3,013,000		1,637,000	
Total	34,201,000	9.06	29,877,000	9.10

Stabilization Contributions

Since January 1, 2018, a stabilization contribution corresponding to 10% of the current service cost (established without any margin for adverse deviations) is required. Such a stabilization contribution corresponds to the minimum required by the existing legislation. This contribution is also shared between the employer (55%) and the active members (45%). Amounts in dollars are based on the 2026 payroll to reflet the contribution deferment.

Stabilization Contributions

	Employees		Employer		Total	
	$	% of payroll	$	% of payroll	$	% of payroll
Total	2,530,000	0.67	3,095,000	0.82	5,625,000	1.49

Amortization payments

The table below shows the balancing contributions required for the Previous Plan, as well as the results of the previous valuation for comparison purposes.

Considering that the going-concern financial situation reveals a deficit, an amortization schedule must be established. The following tables illustrate the amortization schedule established following the previous and current valuation.

Amortization payments – Previous valuation

Nature of deficiency	Start date mm-dd-yyyy	End date mm-dd-yyyy	Monthly amortization payment $	Balance going concern[1] $
Technical deficiency	12-31-2022	12-31-2037	792,250 in 2023 and 509,500 thereafter	61,161,000

Amortization payments – Current valuation

Nature of deficiency	Start date mm-dd-yyyy	End date mm-dd-yyyy	Monthly amortization payment $	Balance going concern[1] $
Technical deficiency	12-31-2024	12-31-2038	1,166,600 in 2025 and thereafter	134,441,000

As of December 31, 2022, 50% of the amortization payment was financed via a transfer from the Reserve and the remaining amount was financed by the University (since the actuarial deficit arose for service prior to January 1, 2016).

[1] Value of amortization payments discounted as at December 31, 2022 and December 31, 2024.

As per the legislation and the regulations adopted in February 2014 and following the Plan Amendment adopted as at December 31, 2024, 100% of the amortization payment required following the December 31, 2024 actuarial valuation is financed via a transfer from the Stabilization Fund. Furthermore, this required contribution is not deferred until January 1, 2026 (hence, a transfer from the Stabilization Fund to the General Account will be made effective as at January 1, 2025).

Note that no amortization payments in respect of solvency deficiencies are required.

Stabilization Fund as a January 1, 2025

The following table presents the stabilization fund as at January 1, 2025 considering the monthly payments paid by the stabilization fund.

Stabilization fund as at January 1, 2025

	(000 $)
Stabilization fund after plan experience as at December 31, 2025	166,590
Transfer from the stabilization fund to the general account as at January 1, 2025	(13,999)
Stabilization fund as at January 1, 2025	152,591

Summary of required contributions

The table below shows the contributions required as a percentage of the total payroll.

Summary of Contributions (as a percentage of total payroll)

	As at December 31, 2024	As at December 31, 2022
Required contributions	17.96%	18.07%
Current service	16.47%	16.54%
Stabilization	1.49%	1.53%
Members' contribution formula in % (below YMPE/above YMPE)	7.6% / 9.1%	7.6% / 9.1%
Employer's contribution formula (as a % of members' contribution)	122.22%	122.22%

Annual required contributions for the period covered by the report

The following table shows annual required contributions for the period covered by the report.

Estimated annual minimal required contributions

	2025 $	2026 $	2027 $
Total			
Current service contribution	60,923,000	62,182,000	63,737,000
	16.54%	16.47%	16.47%
Stabilization contribution	5,636,000	5,625,000	5,766,000
	1.53%	1.49%	1.49%
Total	66,559,000	67,807,000	69,503,000
	18.07%	17.96%	17.96%
Employees			
Current service contribution	27,404,000	27,981,000	28,681,000
	7.44%	7.41%	7.41%
Stabilization contribution	2,542,000	2,530,000	2,593,000
	0.69%	0.67%	0.67%
Total	29,946,000	30,511,000	31,274,000
	8.13%	8.08%	8.08%
Employer			
Current service contribution	33,519,000	34,201,000	35,056,000
	9.10%	9.06%	9.06%
Stabilization contribution	3,094,000	3,095,000	3,173,000
	0.84%	0.82%	0.82%
Total	36,613,000	37,296,000	38,229,000
	9.94%	9.88%	9.88%

Excess surplus

Subsection 147.2(2) of the Income Tax Act (Canada) prohibits employer contributions to a registered pension plan if the actuarial surplus exceeds a specified threshold. If an excess surplus exists and no employer contributions are required under applicable provincial legislation, employer contributions must be suspended, to the extent permitted by provincial legislation, until the excess is eliminated.

An excess surplus is defined in paragraph 147.2(2)(d) of the Income Tax Act as the amount of the actuarial funding surplus of a plan that exceeds 25% of the actuarial liability.

Based on the valuation as at December 31, 2024, the Plan has no excess surplus.

Retroactive effect of the report on required contributions

For contributions that are not subjected to the applicable deferred rules, if the minimum contributions based on this actuarial valuation are greater than the contributions paid since December 31, 2024, the first monthly payment due after the date the report is submitted to Retraite Québec must be increased by the difference between the monthly payments made and those that should have been made according to this report. This difference must also include an interest adjustment based on the fund's rate of return (if positive) for the period in question. The contribution payable under this report may also be adjusted if it is less than the contribution that was paid.

Appendix A – Summary of Plan provisions

The main provisions of the Plan are summarized below.

Effective date

This valuation is based on the Plan provisions in effect as of December 31, 2024, which are summarized below. This is not intended as a complete description of the provisions of the Plan.

Eligibility

All regular full-time employees shall join the Plan form their date of employment.

Each employee who is not a regular full-time employee shall become a member for the Plan on January 1 following the calendar year in which such employee meets qualification requirements (minimum of 700 hours of work or remuneration of 35% of Year's Maximum Pensionable Earnings "YMPE").

Both full-time employees and not regular full-time employees may elect in writing not to participate until January 1 of the year following completion of two full calendar years.

Member Contributions

Effective January 1, 2018:

Member's contributions are required to accrue pension credits, unless the member is exempted as per plan provision.

On December 31, 2017, active members received a one-time option not to contribute to the Plan starting January 1, 2018. Each January 1st, members who decided not to contribute to the Plan have the option to begin paying contributions and to accrue pension credits

Cost-sharing provision effective January 1, 2018:

Total Plan costs are to be shared in the proportion of 45% by the employees and 55% by the University. Total Plan costs consist of the following elements:

- Normal cost
- Stabilization contribution, equal to 10% of the normal cost calculated without margin for adverse deviation;
- The cost of amortization of deficit related to the service after December 31, 2015, if any.

Members are required to contribute 7.6% of their earnings up to the YMPE and 9.1% of their earnings over the YMPE.

Retirement Dates

Normal Retirement Date

The Normal Retirement Date is the first day of the month coincident with or next following the date on which the Member attains age 65.

Early Retirement Date

The Plan permits employees to retire early within the 10-year period preceding the normal retirement date.

Postponed Retirement Date

An active member may postpone retirement beyond the normal retirement date until the 1st of December of the year in which age 71 is attained.

Retirement Benefits

Normal Retirement

Each Member of the Plan is provided with an annual pension equal to:

The product of:

- 2% of final average earnings less 0.5% of this average of to the average YMPE, and
- the number of years of participation during which the Member was a contributor;

plus, the product of:

- 1% of final average earnings less 0.25% of this average up to final YMPE, and
- the number of years of participation during which the Member was not a contributor;
- except that the rate of 1.1% in paragraph ii) above would be reduced to 1% for the calendar year if the actuarial valuation of the Plan conducted as of the beginning of the prior calendar year on the basis of the 3.5%/5% members contributions and unchanged non-contributory pension credits, results in the minimum total required contribution of the University for current service and pas service exceeding 7% of the earnings of members fur such year.

A Member's pension shall be at least equal to the sum of the pension provided by the Member's accumulated contributions plus the pension to which he would have been entitled if he had made to required contributions.

Maximum Pension

The total annual lifetime pension payable from the Plan upon retirement, death of termination of employment cannot exceed the lesser of:

- 2% of the average of the best three consecutive years of total compensation paid to the member by the University, multiplied by total credited service; and
- $1,722.22, or such greater amount prescribed for this purpose by the Income Tax Act, multiplied by the member's total credited service.

In no event shall the total pension and bridging benefits payable form the Plan exceed the maximum amounts defined in the Income Tax Act.

Early Retirement Pension

Benefits are determined as for normal retirement (without the 0.5%, and 0.25% reductions, for payments prior to attainment of age 65) and are reduced by 1/6% for each month preceding the normal retirement date.

However, if a Member has 10 years of service and retirements form active service, the pension will not be reduced. For service prior to 2018, the years of service refer to employment service. For service as of 2018, the years of service refer to "Unreduced Early Retirement Service". Unreduced Early Retirement Service is the period recognized as Credited Service except that for members who are not full-time, it is determined in the same manner as for full-time employees.

The annual lifetime pension related to post-1991 credited service shall be reduced by 0.25% for each month by which payment of the pension precedes the earlier of attainment of age 60 and the month when the sum of the age and the years of service with the University would have equalled 80 if service had been continued.

Postponed Retirement Pension

Where a Member postpones his retirement, hy may elect to continue to accrue benefits until his actual retirement at which time his pension will be no less than the minimum required by law.

In certain circumstances, pension benefits can commence, in whole or in part, prior to the Member's actual retirement.

Automatic Indexation

Effective June 1, 1995, the Plan is amended to increase pensions in payment each June 1st at a rate equal to the percentage in the Consumer Price Index (CPI) over the 12-month period ending on the previous January 1st, less 2%, subject to a maximum increase equal to the average annual percentage market value rate of return of the pension fund over the prior 5 calendar years less 5%. However, any reduction caused by the application of this maximum is to be reinstated in a later year to the extent that the maximum formula exceeds the formula of increase in CPI less 2%.

Excess Interest Indexation

Effective June 1, 1998, and on each June 1st thereafter, excess interest indexation, when applicable will be provided for all eligible Members in receipt of a pension. The excess interest indexation is equal to the average "net real rate of return" of the pension fund investments over the past two years, less 5%, plus any carry forward from the preceding year. The "net real rate of return" is the actual rate of return minus inflation and fees.

Survivor Benefits

Death before Retirement

Prior to early retirement eligibility

In respect of service accrued before January 1, 1990:

The Member's beneficiary or estate receives the actuarial equivalent of the Member's accrued pension benefit payable from Normal Retirement Date to which the Member was entitle on the day prior to the date of his death.

In respect of service accrued on and after January 1, 1990:

The Member's spouse or beneficiary receives the actuarial equivalent of a life annuity guaranteed 10 years of the accrued pension benefit and of the accrued bridging benefit payable form age 55.

After reaching early retirement eligibility

In respect of service accrued before January 1, 1990:

A Member who dies before retiring, is deemed for death benefit purposes, to have retired just before dying and his beneficiary receives a lump sum payment equal to the commuted value of 120 monthly instalments of the pension.

In respect of service accrued on and after January 1, 1990:

The Member's spouse or beneficiary receives the actuarial equivalent of a life annuity guaranteed 10 years of the accrued pension benefit and of the accrued bridging benefit payable from the date of the Member's death.

Death after Retirement

Pension benefits are payable for the lifetime of the pensioner with a minimum guarantee of 120 monthly payments.

If the Member has a spouse, the pension is automatically reduced by actuarial equivalent to provide a 60% survivor pension to the spouse unless waived by the spouse.

If the Member has elected an optional form of pension, the death benefit is revised accordingly.

Termination Benefit

A member who ceases to participate to the Plan prior to early retirement eligibility is entitled to a pension payable from Normal Retirement Date. He may also transfer the commuted value of that pension to another retirement vehicle in accordance with the applicable federal and provincial legislation

The deferred pension accrued by the Member for credited service between December 31, 2000 and December 31, 2017, shall be adjusted annually between the date the Member terminates active membership and the date the Member attains age 55, to account for pre-retirement indexation. Such annual pre-retirement indexation shall be equal to 50% of the increase in the CPI, subject to a minimum of 0% and a maximum of 2%.

A Member's total deferred pension shall be at least equal to the sum of the deferred annuity provided by the Member's accumulated contributions plus the deferred annuity to which he would have been entitled if the had made no required contributions.

Excess Contributions

For the application of the 50% rule (excess contributions), the stabilization contributions and the amortization payments for the deficit related to the service after December 31, 2015 are not considered.

The normal cost contributions, the stabilization contributions and the amortization payments for deficit related to the service after December 31, 2015, with accrued interest, and reduced by the amount of the excess contributions under the 50% rule may not be used to pay more than 100% of the value of the member's pension benefit accrued after January 1, 1990. The excess, if any, shall also be considered as excess contributions.

Appendix B – Actuarial assumptions and methods – Going concern approach

The funding objectives of a pension plan in accordance with recognized actuarial practice are as follows:

- The systematic accumulation, over the years, of specific assets, independent of the employer's assets, intended to guarantee the plan's benefits in respect of the past service of participants; and
- The orderly and rational allocation of contributions among various periods.

Valuation using the going concern approach is a form of actuarial valuation that assumes that the plan will continue to exist indefinitely. This valuation is based on assumptions about future events on which the plan's benefits depend and on methods that determine how costs will be allocated over the service period of the participants.

However, the actual cost can only be determined once the plan has been in operation, the investment returns have been realized, and the benefits have been paid. The difference between the assumptions and actual experience will result in actuarial gains or losses that will be recognized in future valuations.

We have selected actuarial assumptions and methods based on the going concern approach that reflect the plan's funding objectives as communicated to us, while taking into consideration accepted actuarial practices and legal or regulatory requirements.

Method of asset valuation

For the purposes of the going concern valuation as at December 31, 2024, assets were valued at their fair market value.

This method is the same as that used for the previous valuation.

In addition, in accordance with the applicable financing rules, assets are allocated between the reserve and the general account. Following the plan amendment adopted as at December 31, 2024, the reserve has been transformed into a Stabilization Fund.

Appendix E provides more information on the asset and shows the change in the market value of the asset since the previous valuation.

Method of valuing liabilities and current service cost

As in the previous valuation, we used the projected accrued benefit method to determine the Plan's actuarial liability and current service cost.

Under this method, the actuarial liability is calculated as the present value of pensions currently being paid and deferred benefits earned by participants who have left employment, as well as the portion of projected benefits to be paid to active participants for their credited service up to the valuation date.

If the value of the actuarial liability exceeds the actuarial value of the general account, the excess is defined as the actuarial deficit and is funded by fixed equalization contributions over a specified period.

The current service cost represents the present value of the benefits that will be accrued by participants in the Plan in respect of their service during the calendar year following the valuation date.

This actuarial valuation method provides for a year-by-year matching of the cost of benefits that will be earned by participants each year with the contributions required for those years.

Since this method results in a cost profile that increases progressively with age for a given participant, the total costs for the Plan may increase if the average age of participants increases from year to year.

Participants who have reached the assumed retirement age on the valuation date are assumed to retire immediately. For the purpose of calculating the current service cost, these participants are excluded from the contributory payroll.

Disabled participants are valued as active participants, considering they continue to accrue service and are not required make contributions, as per Plan text.

Actuarial assumptions

The following tables summarize the demographic and economic actuarial assumptions used.

Going-concern actuarial assumptions

	December 31, 2024	December 31, 2022
Discount rate		
Actuarial liabilities and current service contribution	5.90%	5.90%
Stabilisation contribution	6.50%	6.40%
CPI inflation rate	2.00%	Idem
Interest credited on employee contributions	5.90%	
Increase in pensionable earnings		
Disabled members:	2.50%	Idem
Others:	2.50% plus merit and promotional scale	Idem
Merit and promotional scale	Based on a scale varying by age[1]	Idem
Increase in maximum pensionable earnings	2.50%	Idem
Indexation of ITA maximum pension		
Amount of ITA maximum pension per year of service	2025: $3,756.67	2023: $3,506.67
Increase in ITA maximum pension	2.50% from 2026	2.50% from 2024
Automatic indexation	0.40% (post-retirement)	Idem
Excess interest indexation	0.00% (post-retirement)	Idem
Additional benefit (pre-age 55 indexing)	1.00% for pre-2018 service only	Idem
Mortality	CPM-2014Publ Table with generational projection using improvement scale CPM-B with size adjustment factors of: Males: 1.05 Females: 0.93	Idem

[1] Table presented in comments section.

<table>
<tr><th></th><th>December 31, 2024</th><th>December 31, 2022</th></tr>
<tr><td>Termination (membership)</td><td>Termination rates per 1,000 per annum

Age | Full-time | Part-time
25 | 110 | 200 per year up to age 54 incl.
30 | 77
35 | 50
40 | 30
45 + | 0</td><td>Idem</td></tr>
<tr><td>Retirement</td><td></td><td></td></tr>
<tr><td>Vested members</td><td>100% at age 65</td><td>Idem</td></tr>
<tr><td>Active members</td><td>Age | Academic | Non-Academic
55 | - | 15%
58 | 10% | -
60 | - | 35%
62 | 25% | 20%
65 | 65% | 30%</td><td></td></tr>
<tr><td>Provision for administrative expenses</td><td>Implicitly recognized in the discount rate</td><td>Idem</td></tr>
</table>

Comments on the assumptions used

Since assumptions are a representation of expected demographics and economic conditions over long periods of time, it is expected that assumptions will not be changed frequently or significantly. Any changes to assumptions will be justified by new conditions that are likely to persist over the long term, rather than by short-term fluctuations. In our opinion, the assumptions used for going concern purposes remain within the range that can be considered appropriate and acceptable for the purposes of this valuation, considering the characteristics and funding objectives of the Plan.

Discount rate

The discount rate assumption for this valuation was selected based on the expected reasonable relationships between various long-term economic variables and the expected impact of these economic variables on the pension fund's performance in accordance with the Plan's Investment policy, considering observed management and administrative expenses.

Based on long-term expectations regarding economic assumptions, the discount rate assumption underlying the going concern valuation was established as follows:

Determining discount rates

	December 31, 2024	December 31, 2022
Expected real rate of return	4.25%	4.10%
Expected inflation	2.00%	2.00%
Value added for rebalancing and diversification	0.45%	0.50%
Administrative and passive investment fees	(0.20%)	(0.19%)
Active management fees	-	-
Discount rate (before margin for adverse deviation)	6.50%	6.40%
Margin for adverse deviations	(0.60%)	(0.50%)
Discount rate (after margin for adverse deviation)	5.90%	5.90%

The guidelines published by Retraite Québec regarding the establishment of actuarial assumptions and methods have been taken into account. More specifically, these guidelines stipulate that the discount rate assumption must be based on the best estimate of the expected return (including the effects of rebalancing and diversification) not exceeding 6.50% (this threshold applies to a plan whose investment policy provides that 50% of the assets will be invested in variable income securities).

For the purpose of calculating the weighted average risk premium, our model determines the expected long-term return for each of the main asset classes (nominal bonds, Canadian equities, global equities, etc.) using historical returns, current rates and forecasts to develop expected long-term financial market returns, standard deviations and correlations for each asset class. We then used stochastic projections to generate returns by asset class over a 30-year period for 5,000 scenarios to establish the expected returns and standard deviations for each asset class. The risk premium for each asset class included in the Plan's target allocation was then determined as the excess of the expected long-term return of that asset class over the return on long-term Canadian government bonds. The weighted average risk premium was then determined using the planned allocation to each asset class as a weighting factor.

We assumed that there would be no additional return generated by active management in excess of the additional management fees.

The assumed level of administration and passive investment management fees is based on the history of fees incurred by the Plan in recent years and our expectations for the future based on the work required and the growth of the pension fund.

The level of margins for adverse deviations was determined by the Pension Committee in collaboration with us.

Inflation

The inflation assumption remains set at 2.00%. This rate is within the Bank of Canada's target range of 1% to 3%.

Increases in pensionable earnings, YMPE and ITA maximum pension

The assumption for increases in salaries, the MGA and the maximum pension allowed under the *Income Tax Act* is set at 2.50% per year.

Merit and promotional scale

Merit and promotional scale

Academic – Full time		Academic – Part time	Non-Academic	
Age group	%	No scale	Age group	%
33-37	2.83%		26-35	2.26%
38-42	0.85%		36-45	1.14%
43-47	2.38%		46-55	0.35%
48-52	1.44%		56-65	0.00%
53-57	0.68%			
58-62	1.30%			
63-65	2.04%			

This assumption remained unchanged compared to the last actuarial valuation. Following the numerous changes to the collective agreements, the salary scale assumption will be further studied in next actuarial valuation with the additional data then available.

The merit and promotional scale used as at December 31, 2022 remains appropriate for the purposes of the actuarial valuation as at December 31, 2024.

Automatic indexation

The assumption of 0.4% represents the expected value of the indexation formula where the inflation is deemed to follow a normal distribution. This assumption remained unchanged compared to the last actuarial valuation.

Retirement

Retirement rates remained unchanged compared to the last actuarial valuation. The retirement rates were developed by the previous actuary using an analysis of actual retirement age of academic and non-academic groups from 2009 to 2018. Based on our experience of university sector pension plan and historical gains and losses, this assumption is still reasonable for the purpose of the current valuation.

Termination

Termination rates remained unchanged compared to the last actuarial valuation.

Mortality

The mortality table used is the CPM-2014 table with generational projections of future longevity improvements based on the CPM-B projection scale. In addition, adjustment factors of 105% for men and 93% for women are applied to the mortality table. This same assumption was used in the last actuarial valuation. The adjustment factors were developed by the previous actuary using a combination of the plan mortality experience from 2012 to 2021 and a multi-factor model. Based on our experience and observed gains and losses, we are of the opinion that this assumption is still appropriate for the current valuation.

Appendix C – Actuarial assumptions and methods – Solvency approach

Asset valuation method

For the purposes of the solvency valuation as at December 31, 2024, the assets were valued at fair market value, including a provision for wind-up expenses.

This method is the same as the one used for the previous valuation.

Appendix E provides more information on the asset and shows the change in the market value of the asset since the previous valuation.

Liability measurement method

For the solvency valuation, the economic assumptions have been changed to reflect market conditions as at December 31, 2024 and the applicable prescribed requirements.

We made no provision for adverse deviations in this valuation since the assumptions are prescribed by legislation and reflect market conditions on the valuation date.

Under this valuation, the actuarial liability corresponds to the present value of benefits in payment and vested pensions for terminated members, as well as the accrued pensions that would have been paid to active members in respect of their credited service up to the valuation date had the Plan been terminated on that date.

The Plan provisions do not provide for any conditional benefits.

Actuarial assumptions

The following table summarizes the demographic and economic actuarial assumptions used.

Solvency and hypothetical wind-up actuarial assumptions

	December 31, 2024	December 31, 2022
Discount rate (settlement by purchase of annuities)[1]	4.72% (Duration of 8.8)	4.91%
Discount rate (settlement by transfer of values)[2]	3.90% for 10 years; 4.50% thereafter	4.10% for 10 years; 4.50% thereafter
Indexation (settlement by purchase of annuities)	1.22%	1.90%
Indexation (settlement by transfer of values)	0.29% for 10 years; 0.29% thereafter	0.29% for 10 years; 0.29% thereafter
Additional benefit (pre-age 55 indexing)	0.87% for 10 years; 0.97% thereafter	0.97% for 10 years; 0.97% thereafter
Increase in pensionable earnings	None	Idem
Increase in maximum pensionable earnings	None	Idem
Maximum pension		
Amount of ITA maximum pension per year of service	2025: $3,756.67	2023: $3,506.67
Increase in ITA maximum pension	None	Idem
Mortality	CPM-2014 Table with generational projection using improvement scale CPM-B	Idem
Termination (membership)	None	Idem
Retirement		
For active members eligible to retirement	Immediate retirement	Idem
For other members[3]	50% at the age that maximizes the value of the pension and 50% at the unreduced retirement age	Idem
Disability	None	Idem
Provision for expenses	$2,400,000	Idem

[1] Determined in accordance with Section 3500 of the ICA's Standards of Practice for Pension Plans.

[2] Determined in accordance with the ICA's educational note.

[3] According to plan provisions, the resulting retirement age is 65.

Incremental cost

The incremental cost on a solvency basis corresponds to the present value, at the calculation date (date 0), of the total expected change in solvency liabilities between date 0 and the next calculation date (date t), adjusted upwards to take into account expected benefits paid between date 0 and date t.

The calculation method used can be summarized as follows:

The present value, at date 0, of projected benefits paid between date 0 and date t, discounted to date 0,

Plus

a projection of solvency liabilities to date t, discounted to date 0, taking into account, if applicable to the pension plan being valued:

- Terminations, deaths, retirements and other expected decrements, and changes in members' status between date 0 and date t,
- Years of service accrued up to date t,
- The expected evolution of benefits up to date t,
- A projection of pensionable earnings up to date t,

Less

solvency liabilities at date 0.

The projection calculation takes into account the following assumptions and other considerations:

- Benefit payment assumptions and probabilities of termination, death, retirement or other decrements, years of credited service and expected changes in benefits and/or pensionable earnings are consistent with the assumptions used in the going concern valuation.
- The assumptions used to calculate the expected liability at date t are consistent with the assumptions used to calculate the solvency liability at date 0, assuming that interest rates remain at levels applicable at time 0, that the select period is re-established at date t in the case of the select and ultimate interest rate assumptions, and that the standards of practice governing the calculation of commuted values and the guidance for estimating annuity purchase premium in effect at date 0 are still in effect at date t.
- Active and inactive plan members at date 0 are taken into account in calculating the incremental cost.

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Appendix D – Participation data

This actuarial valuation is based on participant data updated as of the valuation date and provided by the administrator.

We performed several tests to verify the validity of the participant data. Among the verifications performed, we note:

- Reconciliation of participants since the last actuarial valuation.
- Analysis of salary trends and credited years of service.
- Verification of pensions payable and other benefits according to administrative records by comparison with the amounts indicated in the trustee's report.
- Verification with the administrator of all discrepancies found in relation to the data provided in the previous actuarial valuation and corrections made where necessary.

The analyses showed that the participant data are sufficient and reliable for the purposes of this valuation.

The following tables present a reconciliation and summary of participation, as well as statistics on the distribution of participants by age.

Summary of Full-Time Active Academic Members

	December 31, 2024	December 31, 2022
Contributory		
Number	946	989
Average pensionable earnings[1]	$151,600	$136,700
Average age	50.6	50.3
Average credited service	13.2	12.6
Contributions accumulated with interest	$111,561,900	$111,045,900
Opt-Out and Non-Participating[2]		
Number	13	22
Average pensionable earnings[1]	$144,400	$137,900
Average age	49.5	47.4
Average credited service	6.4	8.1
Contributions accumulated with interest	$128,500	$516,600
Total		
Number	959	1,011
Average pensionable earnings[1]	$151,500	$136,700
Average age	50.6	50.2
Average credited service	13.1	12.5
Contributions accumulated with interest	$111,690,400	$111,562,500

[1] The salary rate use is the salary rate at the valuation date projected one year forward.

[2] Non-participating members are members who have suspended their participation in the Plan.

Summary of Full-Time Active Non-Academic Members

	December 31, 2024	December 31, 2022
Contributory		
Number	1,856	1,799
Average pensionable earnings[1]	$97,400	$88,300
Average age	46.7	46.6
Average credited service	11.3	11.3
Contributions accumulated with interest	$110,836,000	$104,677,500
Opt-Out and Non-Participating[2]		
Number	12	46
Average pensionable earnings[1]	$94,600	$88,900
Average age	54.6	46.6
Average credited service	12.1	8.8
Contributions accumulated with interest	$121,800	$927,600
Total		
Number	1,868	1,845
Average pensionable earnings[1]	$97,400	$88,300
Average age	46.8	46.6
Average credited service	11.2	11.2
Contributions accumulated with interest	$110,957,900	$105,605,100

[1] The salary rate use is the salary rate at the valuation date projected one year forward.

[2] Non-participating members are members who have suspended their participation in the Plan.

Summary of Part-Time Active Academic Members

	December 31, 2024	December 31, 2022
Contributory		
Number	432	403
Average pensionable earnings[1]	$76,900	$71,900
Average age	52.5	52.8
Average credited service	5.2	5.9
Contributions accumulated with interest	$8,785,500	$8,849,200
Opt-Out and Non-Participating[2]		
Number	19	24
Average pensionable earnings[1]	$77,700	$72,900
Average age	52.3	50.3
Average credited service	3.1	3.0
Contributions accumulated with interest	$0,00	$37,300
Total		
Number	451	427
Average pensionable earnings[1]	$77,000	$72,000
Average age	52.5	52.7
Average credited service	5.2	5.7
Contributions accumulated with interest	$8,785,500	$8,886,500

[1] The salary rate use is the salary rate at the valuation date projected one year forward.

[2] Non-participating members are members who have suspended their participation in the Plan.

Summary of Part-Time Active Non-Academic Members

	December 31, 2024	December 31, 2022
Contributory		
Number	580	495
Average pensionable earnings[1]	$45,000	$47,900
Average age	37.1	38.0
Average credited service	2.3	2.3
Contributions accumulated with interest	$4,504,800	$3,757,300
Opt-Out and Non-Participating[2]		
Number	12	20
Average pensionable earnings[1]	$37,700	$50,600
Average age	46.4	45.8
Average credited service	2.5	3.1
Contributions accumulated with interest	$1,000	$7,400
Total		
Number	592	515
Average pensionable earnings[1]	$44,900	$48,000
Average age	37.3	38.3
Average credited service	2.3	2.3
Contributions accumulated with interest	$4,505,700	$3,764,700

[1] The salary rate use is the salary rate at the valuation date projected one year forward.

[2] Non-participating members are members who have suspended their participation in the Plan.

Summary of Disabled and Vested Members

	December 31, 2024	December 31, 2022
Disabled Members		
Number	71	49
Average pensionable earnings[1]	81,300	84,800
Average age	52.9	53.9
Average credited service	17.7	19.5
Contributions accumulated with interest	4,409,800	2,978,500
Vested Members		
Number[2]	1,215	1,119
Average annual pension[3]	$4,400	$3,300
Average age	47.3	46.9

Summary of Pensioners, Surviving Spouses, and Beneficiaries

	December 31, 2024	December 31, 2022
Pensioners		
Number	2,393	2,258
Average annual pension[4]	$27,700	$26,400
Average age	74.7	74.3
Surviving Spouses and Beneficiaries		
Number	199	174
Average annual pension[4]	$27,000	$28,000
Average age	80.6	78.8

[1] Pensionable earnings as at the valuation date.

[2] Including 377 members with outstanding payment as at December 31, 2024 and 328 members with outstanding payments as at December 31, 2022.

[3] Only including members with a vested pension.

[4] Including bridging benefits.

Changes in Plan Membership

	Actives	LTD	Vested	Pensioners and Beneficiaries	Total
Total at December 31, 2022	3,798	49	1,119	2,432	7,398
Adjustment	9		(9)		-
New Entrants	935				935
Actives to LTD	(44)	44			-
LTD to Actives	11	(11)			-
Terminations:					
Vested pension	(109)		109		-
Transfers/Refunds	(146)	(1)	(329)		(476)
Pending	(371)	(1)	372		-
Retirement	(210)	(8)	(38)	256	-
Deaths:					
Without beneficiary	(2)	(1)	(9)	(97)	(109)
With beneficiary	(1)			1	-
End of guarantee/Death of beneficiary					
Total at December 31, 2024	3,870	71	1,215	2,592	7,748

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Appendix E – Asset information

The assets recognized for the purposes of this valuation have been extracted from the financial report audited by KPMG LLP. The following table shows the change in assets since the previous actuarial valuation.

Change in market value of assets since the previous actuarial valuation

	2023	2024
	($000)	($000)
Value at the beginning of the period	1,475,086	1,506,483
Plus:		
Employee contributions – current service	24,064	27,187
Employee contributions – stabilization	2,305	2,512
Employee contributions – amortization payments	-	-
Employee contributions – voluntary	38	33
Employee contributions – transfer-in	913	1,236
Employer contributions – current service	30,097	33,649
Employer contributions – stabilization	2,898	3,093
Employer contributions – amortization payments	4,754	3,057
Employer contributions – residual rights	309	184
Employer contributions – Other	27	27
Investment return net of fees	36,086	93,438
Total	101,491	164,416
Less:		
Pension payments	(65,385)	(69,642)
Lump sums and withdrawal	(3,683)	(4,928)
Transfer-out	(1,026)	(461)
Total	(70,094)	(75,031)
Value at the end of the period	1,506,483	1,595,868

The following table presents target asset allocation as per the Investment policy as well as the ponderation used to determine the going concern discount rate.

Target and actual asset allocation

	Target (%)	Actual (%)
Capital preservation	50 (30 min to 70 max)	45.7
Cash and cash equivalents		4.3
Currency hedging		1.2
Tactical asset allocation		9.8
Absolute return – credit		9.6
Absolute return – multi-strategy		20.8
Growth	20 (10 min to 30 max)	24.5
Equity – Asia		8.0
Equity – North America		16.0
Tactical asset allocation		0.5
Diversification	20 (20 min to 40 max)	29.8
Private real estate		11.1
Private debt		3.4
Private equity alternatives		8.7
Private equity infrastructure		2.8
Farms and timberlands		3.7
Insurance linked securities		0.1

Appendix F – Plausible adverse scenarios

The purpose of the following scenarios is to illustrate the impact of unfavourable but plausible scenarios, compared with the best estimate assumptions used in the valuation, on the funded status and the current service cost, excluding the stabilization contribution.

A plausible adverse scenario is considered to be one that will occur in the short term (immediately to one year) with a probability of occurrence of between 1 in 10 and 1 in 20 based on the opinion of the actuary.

The results of the scenarios selected are shown in the table below and a description of each scenario follows.

	Dec. 31, 2024 ($000)	Interest rate risk ($000)	Deterioration of asset value ($000)	Longevity risk ($000)
Asset value	1,595,322	1,608,724	1,387,771	1,595,322
Actuarial liabilities	(1,563,173)	(1,628,481)	(1,563,173)	(1,591,703)
Going concern surplus (deficit)	32,149	(19,757)	(175,402)	3,619
Impact	n/a	(51,906)	(207,551)	(28,530)
Current service cost				
- in % of payroll	16.47%	17.64%	16.47%	16.67%
- impact	n/a	+1.17%	-	+0.2%

Interest rate risk

This scenario illustrates the sensitivity of the funded status of the Plan to an immediate change in the market interest rates underlying fixed income investments. In order to assess the impact of a decrease in interest rates of a magnitude consistent with a 1 in 10 likelihood of occurring, we have used the same stochastic model that is used to determine the going concern discount rate. To determine the sensitivity to interest rate risk, and the resulting impact on the Plan assets and liabilities, we have:

- considered the hypothetical going concern discount rate over the 500 trials where fixed income yields are lowest at the one-year horizon,
- determined the decrease in median long-term fixed income yields over the 500 trials where fixed income yields are the lowest at the one-year horizon.

As such, under the interest rate risk scenario, the going concern discount rate is decreased by 82 basis points as of December 31, 2024.

With respect to the impact on fixed income assets, the scenario results in a decrease in long-term yields on fixed income investments of 0.32% and an increase in the value of assets of 0.8%.

Based on the estimated duration of the Plan assets and liabilities, we have then determined the estimated change to the Plan funded status under the interest rate risk scenario.

Deterioration of asset value

This scenario illustrates the sensitivity of the funded status of the Plan to short-term shock which causes a reduction in the market value of assets, with no change to the liabilities of the Plan. This scenario is assumed not to impact the current expectation of the long-term rate of return, and consequently, the going concern discount rate. In order to assess the impact of a decrease in asset values of a magnitude consistent with a 1 in 10 likelihood of occurring, we have used the same stochastic model that is used to determine the going concern discount rate.

To determine the sensitivity to a deterioration in asset values, based on the Plan target asset mix, we have determined the decrease in median investment returns over the 500 trials where investment returns are the lowest at the one-year horizon.

As such, under the deterioration of asset values scenario, the market value of assets is decreased by 13.0% as of December 31, 2024.

Longevity risk

This scenario illustrates the sensitivity of the funded status of the Plan under the going concern valuation to a more conservative mortality assumption than that currently used. We have evaluated this scenario on the assumption that life expectancy will immediately increase by 10% at all ages, compared with the current assumption.

Additional plausible adverse scenario

The Pension Committee has also requested an illustration of the financial impact on the going concern funded status and current service cost of a sustained higher inflation rate for a prolonged period (all other things being equal). We therefore illustrate the impact of an annual inflation 0.50 % higher than our current best estimated assumption of 2.00 %, for the first 10 years following valuation date. Such inflation would have an impact on the indexation of annuities and on salary progression.

The following table illustrates the financial impact on the funded status and current service cost of the Plan.

	Dec. 31, 2024 ($000)	Sustained inflation risk ($000)
Asset value	1,595,322	1,595,322
Actuarial liabilities	(1,563,173)	(1,602,974)
Going concern surplus (deficit)	32,149	(7,652)
Impact	n/a	(39,801)
Current service cost		
- in % of payroll	16.47%	17.17%
- impact	n/a	+0.70%

Appendix G – Additional disclosures

Article 10 of the USPP Act provides that the total contributions for service subsequent to December 31, 2015 must be assumed by the employer and the active members. The total contributions to be taken into consideration are the current service contribution, the amortization payment relating to any unfunded actuarial liability determined for service subsequent to December 31, 2025 and the stabilization contribution.

As per Plan provisions and cost-sharing arrangement effective January 1, 2020, any deficit related to service after December 31, 2015 will be shared in proportion of 45% by the employees and 55% by the University. Any such deficit related to service before January 1, 2016 remains the sole responsibility of the University.

The purpose of this appendix is to provide information regarding the unfunded liability separately for service prior to January 1, 2016 and service as of January 1, 2016 in order to determine the required amortization contributions to be paid into the Plan, if any.

The following table shows the Going Concern funded status per period of service as at December 31, 2024.

Going concern funded status per period of service

	Service before January 1, 2016 ($000)	Service after January 1, 2016 ($000)	Total ($000)
Actuarial value of assets			
General account	898,770	530,508	1,429,278
Reserve – after Plan experience	132,199	34,391	166,590
Total	1,030,969	564,899	1,595,868
Actuarial liabilities	1,039,139	524,580	1,563,719
Actuarial surplus (unfunded liability) – General Account	(140,369)	5,928	(134,441)

Reserve after Plan experience per period of service

	Service before January 1, 2016 ($000)	Service after January 1, 2016 ($000)	Total ($000)
Reserve before Plan experience as at December 31, 2024	132,199	34,391	166,590
Determination of technical gains (losses)			
Actuarial gains (losses)	(81,656)	5,928	(75,728)
Additional contributions (to be subtracted)	-	(11,438)	(11,438)
Other gains (to be subtracted)	-	(526)	(526)
Technical gains (losses)	(81,656)	(6,036)	(87,692)
Transfer from the general account to the reserve	-	-	-
Reserve after plan experience	132,199	34,391	166,590

The Pension plan was amended, effective as at December 31, 2024. The main purpose of the amendment was the conversion of the “Reserve” to a “Stabilization Fund” as permitted under Article 40 of the *Regulation respecting the funding of defined-benefit pension plans of the municipal and university sectors*.

Furthermore, in accordance with Article 51 of the *Regulation respecting the funding of defined-benefit pension plans of the municipal and university sectors,* the Funding Policy states that the current service contributions and stabilization contributions are deferred following the filing of an actuarial valuation. However, any amortization payments paid from the Stabilization Fund are not deferred and apply on the day following the valuation date.

Amortization payments allocated in proportion to deficit per period of service

	Service before January 1, 2016	Service after January 1, 2016	Total
Proportion of the deficit per period of service (A)	100%	0%	100%
Total amortization payments for years 2025-2027 payable by the University and the employees (B)			13,999
Allocation per period of service (A x B)	13,999	-	13,999
Utilization of the Stabilization Funds			
Remaining required amortization payments	-	-	-
Portion payable by the University (100% for svc. prior Jan 1, 2016 / 55% for svc. after Jan 1, 2016)	-	-	-
Portion payable by the employees (45% for svc. after Jan 1, 2016)	-	-	-

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Administrator Certification

With respect to the Actuarial Valuation Report as at December 31, 2024, for the Pension Plan for the Employees of Concordia University (the "Plan"), we hereby confirm that we have provided Eckler with:

- A copy of the Plan's official documentation, including all amendments to date;
- All relevant data relating to employees, former employees or their beneficiaries entitled to benefits under the Plan;
- All information relating to the Plan's assets and a copy of the most recent Investment Policy;
- A copy of the most recent Funding Policy and the changes recently adopted to such policy;

And that, to the best of our knowledge:

- The summary of the Plan provisions presented in Appendix A is complete and accurate;
- The assets data presented in Appendix E are complete and accurate;
- The actuarial assumptions, including the level of margins for adverse deviations, presented in Appendix B are consistent with our discussions with Eckler and with the terms of the mandate given to Eckler by the Pension Committee;
- This report reflects the content of the Investment Policy and the Funding Policy (as recently amended); and
- All events occurring after the valuation date that may affect the results as at December 31, 2024, have been communicated to Eckler.

DocuSigned by:

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Marc Gauthier
Principal Administrator

October 7, 2025 | 10:57 EDT

Date