

Pensioner Adjustments

The Brock University Pension Plan is a hybrid pension plan, composed of both a Defined Contribution component (Money Purchase Pension) and a Defined Benefit component (Minimum Guaranteed Pension). At pension commencement, the Money Purchase Pension and Minimum Guaranteed Pension are calculated and the pensioner receives the greater of the two pension amounts. Both pension amounts are adjusted effective July 1st of every year and pensioners will receive the greater of the two amounts for the next 12 months. The letter that pensioners receive in September of every year provides the new Money Purchase Pension amount and the new Minimum Guaranteed Pension amount for that pension year. A review of how the two pension amounts are calculated at pension commencement date and adjusted every July 1st is below:

How is the Money Purchase Pension and Minimum Guarantee Pension calculated and adjusted?

Money Purchase Pension

Calculation at pension commencement

At pension commencement the starting Money Purchase Pension is calculated as the amount of pension that a member's Money Purchase Account (MPA) can purchase.

It is calculated as follows:

$$\frac{\text{Total Money Purchase Account Balance at Pension Commencement}}{\text{Annuity cost of \$1 annual lifetime pension}}$$

Example:

Date of Retirement:	December 31, 2021
Member's age at pension commencement date:	65.42
MPA Balance at pension commencement date:	\$430,000
Annuity cost of \$1 annual lifetime pension:	12.3267
Annual pension	= \$430,000/12.3267 = \$34,884 per year

The above pension is payable for the life of the member, with a guarantee that the pension payments will continue to be made for at least 5 years. If a member elects a different form of pension, the pension amount is actuarially adjusted according to the pension form elected by the member. (i.e. the amount of a Joint & Survivor Pension is less than that of a Life Pension, guaranteed 5 years). This pension, together with other money purchase pensions is paid from the variable annuity fund which must be self sustaining in total.

Annual adjustment

The Money Purchase Pension is adjusted annually, starting with the July 1st pension payment following pension commencement. The adjustment is based on the difference between the actual investment and mortality experience of the pension fund during the preceding Plan Year and the rate of return and mortality assumed in determining the monthly pension. The current fund rate of return assumption is 6%. As such, before taking into account any mortality gains or losses, the pension fund must earn 6% to maintain a constant pension. As a result of this adjustment, the Money Purchase Pension can increase or decrease in a given year.

Below is a chart showing fund rates of return and Money Purchase Pension adjustments for the last 10 Plan years:

Pension Plan year ending	Fund rate of return (%)	Adjustment for rate of return (%)	Adjustment for mortality (%)	Adjustment for change in mortality table (%)	Total Pensioner adjustment (%)
June 30, 2012	1.9658	-4.0342	0.4241		-3.6101
June 30, 2013	10.2725	4.2725	0.3659		4.6384
June 30, 2014	15.8129	9.8129	-1.0564		8.7565
June 30, 2015	9.5487	3.5487	-0.5040		3.0447
June 30, 2016	3.1421	-2.8579	0.5425	-1.5491	-3.8645
June 30, 2017	9.6688	3.6688	-0.0233	-3.4858	0.1597
June 30, 2018	8.3453	2.3453	-0.5230		1.8223
June 30, 2019	8.3413	2.3413	0.2851		2.6264
June 30, 2020	7.4521	1.4521	-0.2188		1.2333
June 30, 2021	12.4968	6.4968	-0.2024		6.2944

Minimum Guaranteed Pension

Calculation at pension commencement

At pension commencement the starting Minimum Guaranteed Pension is calculated as 1.7% of a member's 5 years of best average earnings multiplied by years of pensionable service, reduced by 1/35th of the CPP benefit for each year of pensionable service (service capped at 35 years), subject to Income Tax Act maximum pension limits in the year of pension commencement.

Example:

Age at retirement: 65.42
 Date of retirement: December 31, 2021
 Best Average Earnings: \$75,500
 Pensionable Service: 30 years
 Final Average Yearly Maximum Pensionable Earnings: \$57,780
 Estimated Canada Pension Plan Pension: = 25% x \$57,780 = \$14,445

Annual pension = $(.017 \times \$75,500 \times 30) - ((\$14,445 \times 30) \times (1/35))$
 = \$26,123.52 per year

The above pension is payable at normal retirement date for the life of the member, with a guarantee that the pension payments will continue to be made for at least 5 years. If a member elects a different form of pension and/or the member retires early, the pension amount is actuarially adjusted according to the pension form elected by the member. (i.e. the amount of a Joint & Survivor Pension is less than that of a Life Pension, guaranteed 5 years)

Annual adjustment

The Minimum Guaranteed pension is adjusted annually, starting with the July 1st pension payment following pension commencement by the Consumer Price Index to a maximum of 2.0%, cumulative from retirement date.

Below is a chart showing Consumer Price Index values for the last 10 Plan years:

Pension Plan year ending	Consumer Price Index (%)
June 30, 2021	1.46
June 30, 2020	1.46
June 30, 2019	1.42
June 30, 2018	1.88
June 30, 2017	1.46
June 30, 2016	1.40
June 30, 2015	1.50
June 30, 2014	1.43
June 30, 2013	0.94
June 30, 2012	2.40

When does the pension adjustment take place?

Pension adjustments in the Brock Pension Plan are effective July 1st of each Plan year. Normally, the adjustment occurs with the October 1st pension payment. There is a delay because it takes time to determine the final year end rate of return, analyze pensioner data, determine the magnitude of the adjustment, and implement the adjustment.

The result of this delay is either an overpayment or an underpayment for the months of July, August and September (depending on whether pensions are decreased or increased). Historically, years where there has been an underpayment for the 3 months, pensioners received a lump sum amount with their October pay to account for the underpayment. In years when there has been an overpayment for the months of July, August and September, the amount of the overpayment is taken off over the next 9 months (October to June).

Example of an Overpayment:

Money Purchase Pension amount July 1, 2015:	\$1,000 per month
Adjustment to Money Purchase Pensions for July 1, 2016:	-3.8645%
Money Purchase Pension amount effective July 1, 2016:	\$961.35 per month
Amount of overpayment for July to September:	$=(\$1,000 - \$961.35) * 3 \text{ months}$ =\$115.95
Adjustment required on monthly payments for October to June:	$=$115.95 / 9 \text{ months}$ =\$12.88 per month
Amount of monthly payment October to June:	$=$961.35 - \12.88 = \$948.47