

Appendix D7 – Actuarial Methods and Assumptions

Public Service Defined Benefit Pension Plans Reciprocal Transfer Agreement

- Name of Public Authority: Ontario Pension Board ("OPB")
- Registered Pension Plan Name: Public Service Pension Plan ("PSPP")
1. Actuarial Method: Projected Unit Credit
2. Assumptions: Effective date: October 1, 2015
- a) Economic Assumptions:
- | | |
|--|---------------------------------------|
| (1) Interest Rate: | 5.95% |
| (2) Inflation Rate: | 2.10% |
| (3) YMPE Growth Rate: | 2.60% until 2018;
3.10% thereafter |
| (4) Salary Growth Rate: | |
| 2014: 0.50%; 8.55% for OPP Officers | |
| 2015: 1.00% | 2018: 2.00% |
| 2016: 1.50% | 2019: 2.50% |
| 2017: 1.50% | 2020+: 3.10% thereafter |
| Plus Promotional Increase Scale (see page 2) | |
| (5) Rate of Increase of Maximum Benefits under Income Tax Act: | 2.60% until 2018;
3.10% thereafter |
| (6) Rate of Indexing of Pension in Payment | 2.10% |
- b) Demographic Assumptions:
- (1) Mortality: see page 2
- (2) Gender Split: gender distinct
- (3) Proportion with Spouse: Men: 87%; Women: 52%
- (4) Age Difference Between Spouses:
- Spouse of a male member is 3 years younger than the member
- Spouse of a female member is the same age as the member
- (5) Retirement Age: see page 3
- (6) Withdrawal Rate: see page 4
- (7) Disability Rate: Nil

A. The rates of promotional salary increases are as follows:

Ontario Provincial Police (OPP) Officers		Members other than OPP Officers	
Completed Service (yrs)	Promotional Increase	Attained Age (yrs)	Promotional Increase
1	4.00%	20-26	7.50%
2	3.60%	27	6.50%
3	3.20%	28	5.50%
4	2.90%	29	4.50%
5	2.60%	30-31	3.50%
6	2.30%	32	2.50%
7	2.00%	33-40	1.00%
8	1.80%	41-48	0.25%
9	1.60%	49+	0.00%
10	1.40%		
11	1.20%		
12-15	1.00%		
16-20	0.50%		
21+	0.00%		

B. The mortality rates are modified rates from the CPM 2014 Private Sector Mortality Table with allowance for future mortality improvement. The base mortality rates (prior to provision for future mortality improvements) are rates from the CPM 2014 Private Sector Mortality Table with the following adjustments:

Percentage of Rates		
Age	Male	Female
Less than 70	90%	120%
70 to 79	110%	120%
80 to 84	110%	115%
85 to 89	110%	105%
90 or higher	100%	105%

Allowance for future mortality improvement projected from 2014 using the CPM Improvement Scale B.

C. The retirement rates correspond to the following tables:

Plan members other than OPP Officers and Justices of the Peace

Age	Eligible for Unreduced Retirement	Reduced Retirements
First Reduced	40%	N/A
55	25%	4%
56	25%	4%
57	25%	4%
58	25%	4%
59	25%	7%
60	25%	7%
61	20%	7%
62	20%	7%
63	20%	7%
64	45%	15%
65	100%	N/A

OPP Officers

Age	Eligible for Unreduced Retirement	Reduced Retirements
First Unreduced Age	60%	N/A
50	25%	N/A
51	25%	N/A
52	25%	N/A
53	25%	N/A
54	25%	N/A
55	25%	4%
56	25%	4%
57	25%	4%
58	25%	4%
59	25%	7%
60	25%	7%
61	20%	7%
62	20%	7%
63	20%	7%
64	45%	15%
65	100%	N/A

Justices of the Peace

Age	Eligible for Unreduced Pension before Age 65	Not Eligible for Unreduced Pension before Age 65
First Unreduced Age	33%	33%
Ages following First Unreduced Age up to and including Age 65 (per year)	10%	N/A
Ages 66 to 70 (per year)	15%	15%
Age 71	100%	100%

D. The withdrawal rates correspond to the following table:

Completed Service (yrs)	Non-OPP Officers Annual rate	Completed Service (yrs)	OPP Officers Annual rate
<3	12%	<1	6%
3	10%	1-3	3%
4	9%	4-5	2%
5-6	8%	6-10	2%
7	7%	11-12	2%
8	6%	13-14	1%
9-11	5%	15-20	1%
12-13	4%	21+	1%
14-19	3%		
20+	2%		