



Actuarial Valuation as at July 1, 2015 for University of Toronto Supplemental Retirement Arrangement

November 2015

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Preparation of this Actuarial Valuation

University of Toronto Supplemental Retirement Arrangement

This material has been prepared primarily to present the current obligations of the University of Toronto Supplemental Retirement Arrangement (the "SRA") as of July 1, 2015.

In conducting the valuation, we have used personnel information provided by the University of Toronto as of July 1, 2015, and the actuarial assumptions and methods described in the actuarial assumptions section of this report.

For the purposes of this valuation, it is our opinion that:

- The data upon which the valuation is based are sufficient and reliable;
- The assumptions used are appropriate; emerging experience differing from the assumptions will result in gains or losses which will be revealed in subsequent valuations; and
- The actuarial methods used are appropriate.

This report and its associate work have been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada.



Andrew M. Hamilton, FCIA, FSA
Partner



Allan H. Shapira, FCIA, FSA
Senior Partner

Aon Hewitt
225 King Street West, Suite 1600
Toronto, Ontario M5V 3M2

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Valuation Results

The going concern actuarial valuation of the SRA is prepared based on the same actuarial assumptions and methods used for the actuarial valuation of the University of Toronto Pension Plan and the University of Toronto (OISE) Pension Plan.

	As of July 1, 2015	As of July 1, 2014
Going Concern Valuation Results		
Past Service¹		
Accrued liability for SRA		
Active members	\$ 47,000	\$ 186,000
Retired members	<u>136,176,000</u>	<u>139,979,000</u>
Total	<u>\$ 136,223,000</u>	<u>\$ 140,165,000</u>
Current Service		
Current service cost for SRA	\$ -	\$ -

¹ Includes members in both the University of Toronto Pension Plan and University of Toronto (OISE) Pension Plan

Personnel Information

Personnel Characteristics

The valuation was based on personnel data for members of the University of Toronto Pension Plan and University of Toronto (OISE) Pension Plan, supplied by the University as of July 1, 2015. The average characteristics of active and LTD members is shown as of July 1, 2014 and July 1, 2015.

	July 1, 2015	July 1, 2014
Number of Members		
Males	4,299	4,247
Females	<u>5,367</u>	<u>5,221</u>
Total	9,666	9,468
Average Present Age		
Males	48.7	48.5
Females	46.9	46.7
Total	47.7	47.5
Average Years of Service		
Males	12.9	12.8
Females	11.5	11.5
Total	12.1	12.1
Average Age at Hire		
Males	35.8	35.7
Females	35.3	35.3
Total	35.5	35.4
Average Salary¹	\$ 98,708	\$ 96,862

¹ Without \$150,000 cap on salary; full-time equivalent for part-time members

Active/LTD Membership Distribution

The distribution of the active and LTD members shown on the previous page by salary range is shown below.

Salary Ranges	July 1, 2015	July 1, 2014
Less than \$80,000	4,600	4,712
\$80,000 to \$84,999	541	455
\$85,000 to \$89,999	353	287
\$90,000 to \$94,999	353	346
\$95,000 to \$99,999	325	301
\$100,000 to \$104,999	312	314
\$105,000 to \$109,999	234	196
\$110,000 to \$114,999	212	240
\$115,000 to \$119,999	206	159
\$120,000 to \$124,999	201	179
\$125,000 to \$129,999	140	182
\$130,000 to \$134,999	153	178
\$135,000 to \$139,999	156	146
\$140,000 to \$144,999	136	138
\$145,000 to \$149,999	133	112
Greater than \$150,000	1,611	1,523

Retirees and Spouse

Following are some pertinent characteristics of the retirees and spouse who are receiving an SRA benefit as of July 1, 2015. Corresponding data for prior valuations is shown for comparison.

	Number	Average Age	Average Monthly Benefit
July 1, 2015	1,103	76.3	\$ 869
July 1, 2014	1,110	75.4	\$ 861
July 1, 2013	1,064	74.8	\$ 858
July 1, 2012	1,041	74.1	\$ 879
July 1, 2011	964	73.8	\$ 897
July 1, 2010	935	73.2	\$ 890
July 1, 2009	893	72.8	\$ 890
July 1, 2008	823	72.6	\$ 877
July 1, 2007	829	71.9	\$ 868
July 1, 2006	799	71.4	\$ 837
July 1, 2005	767	70.9	\$ 778
July 1, 2004	679	70.8	\$ 731
July 1, 2003	620	71.1	\$ 560

Plan Provisions

Plan Establishment

The SRA was established effective July 1, 1996, to provide eligible members of the University of Toronto Pension Plan (the "Pension Plan") with additional retirement income to compensate for the limitations prescribed under the regulations to the *Income Tax Act* (Canada) on the amount of lifetime retirement benefits payable from a registered pension plan.

The SRA also applies to eligible members of the University of Toronto (OISE) Pension Plan. Although the provisions of the SRA reference the provisions of the Pension Plan, the provisions of the SRA shall be read mutatis mutandis in respect of the provisions of the University of Toronto (OISE) Pension Plan.

The SRA is not required to be, and shall not be, registered with the federal government or any provincial government.

Effective Date	July 1, 1996
Eligibility	All members of the University staffs who participate in the Pension Plan and whose benefits payable from the Pension Plan, before application of the maximum benefit limits, exceed the maximum benefit limitations prescribed in the <i>Income Tax Act</i> , shall be a member.
Retirement Benefits	
Eligibility	Retirement under the Pension Plan on normal retirement date, early retirement date, or postponed retirement date.
Benefit	Annual benefit from the SRA equal to (a) minus (b) minus (c) below: <ul style="list-style-type: none"> (a) Amount of pension payable from the Pension Plan without application of the maximum limitations prescribed under the <i>Income Tax Act</i> on the maximum benefit payable from a registered pension plan. (b) Amount of pension actually payable from the Pension Plan (after application of the maximum benefit limitations). (c) Amount of pension that may be provided by an amount equal to the member's cumulative notional amount.
Form of Payment of Retirement Benefits	The retirement pension payable from the SRA commences to be paid in the same manner and in the same form of payment as the annual pension payable to the member from the Pension Plan.
Cost-of-Living Adjustments	The retirement pension payable from the SRA shall be adjusted at the same time, and in the same manner and in the same percentage as the cost-of-living adjustments and other augmentations that are applied to the member's pension payable from the Pension Plan.
Termination Benefits	Each member who terminates prior to early retirement date for any reason other than death, and who does not elect a cash refund of member contributions under the Pension Plan, shall be entitled to a future vested pension determined in the same manner as described under Retirement Benefits. However, if the member elects a locked-in transfer from the Pension Plan, then the member shall receive a lump-sum payment from the SRA equal to the excess, if any, of the commuted value of the pension payable from the Pension Plan without application of the maximum benefit limits prescribed under the <i>Income Tax Act</i> minus the cumulative notional amount, over the transfer amount received from the Pension Plan.

Preretirement Death Benefits

Eligibility

- (a) Before Eligibility for Early Retirement
- (b) After Eligibility for Early Retirement

Benefit

- (a) Commuted value of the pension payable under the Termination Benefits section if the member had terminated service immediately prior to the date of death.
- (b) Commuted value of the pension payable under the Retirement Benefits section if the member had retired immediately prior to the date of death.

The death benefits payable from the SRA shall be paid to the same person, in the same form, and on the same dates as the death benefits payable from the Pension Plan.

Definitions

Cumulative notional amount

The notional amount is an amount determined upon the member's termination of continuous service, retirement or death in respect of each University year on and after July 1, 1986, equal to the difference between the amount the member contributed to the Pension Plan in each such University year (which was capped to reflect the *Income Tax Act* maximum pension) and the amount the member would have contributed had the member's contributions been based on the member's salary to the maximum salary applicable to that year.

The cumulative notional amount is the sum of the notional amount in each such University year, with interest at the rate credited on member contributions under the Pension Plan.

Going Concern Assumptions and Methods

The actuarial assumptions and methods used for this actuarial valuation are the same as those used for the actuarial valuation as of July 1, 2015 for the University of Toronto Pension Plan. The rationale for the assumptions below is described in the July 1, 2015 actuarial valuation report for the University of Toronto Pension Plan.

	July 1, 2015	July 1, 2014
Economic Assumptions		
Increase in Consumer Price Index ("CPI")	2.00% per year	Same
Cost-of-living adjustment	1.50% per year (75% of increase in CPI)	Same
Discount rate	5.75% per year (2.00% increase in CPI + 3.75% real return, net of all fees)	Same
Increases in pensionable earnings	4.00% per year (2.00% increase in CPI + 2.00% merit and promotion/progression)	Same
Increases in CPP maximum salary	2.75% per year (2.00% increase in CPI + 0.75% real wage growth)	Same
Increases in maximum pension limit	\$2,818.89 in 2015; increasing by 2.75% per year thereafter	\$2,770.00 in 2014; increasing by 2.75% per year thereafter
Interest on member contributions	2.50% per year	Same
Investment and non-investment expenses	Taken into account in the discount rate assumption	Same

	July 1, 2015	July 1, 2014
Demographic Assumptions		
Mortality table	2014 Canadian Public Sector Pensioners' Mortality Table combined with mortality improvement scale CPM-B	Same
Retirement rates		
Academic staff and librarians	In accordance with Table A following, but no earlier than one year after valuation date, subject to early retirement provisions.	Same
Administrative staff, unionized administrative staff, unionized staff and research associates	Age 63, subject to early retirement provisions	
Deferred vested members	Age 65½ ¹	
Termination rates	Variable by age (Table B following)	Same
Disability rates	None assumed	Same
Proportion married		
Non-retired proportion with spouse	Male members: 85% of members have a spouse at retirement with spouse four years younger Female members: 70% of members have a spouse at retirement with spouse two years older	Same
Retired members	Actual marital status and ages are used	Same
Methods		
Actuarial cost method	Projected unit credit cost method	Same
Asset valuation method	Not applicable	Same

¹ Reflects that normal retirement date is June 30th coincident with or following age 65

Table A

Retirement Rates for Academic Staff and Librarians

Age	10 or More Years of Pensionable Service	Less Than 10 Years of Pensionable Service
60	5% ¹	-
61	5%	-
62	5%	-
63	5%	-
64	5%	-
65	30%	30%
66	30%	30%
67	30%	30%
68	30%	30%
69	50%	50%
70	50%	50%
71	100%	100%

¹ Applies at age 60, or, if any, first age at which participant is eligible for an unreduced pension

Table B

Withdrawals per 1,000 Members

Present Age	Rates	Present Age	Rates
20	100	40	22
21	100	41	21
22	100	42	20
23	100	43	19
24	100	44	18
25	100	45	17
26	90	46	16
27	80	47	15
28	71	48	14
29	63	49	13
30	56	50	12
31	50	51	11
32	45	52	10
33	40	53	9
34	36	54	8
35	32		
36	30		
37	28		
38	26		
39	24		

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