



Firefighters' and Rescue Squad Workers' Pension Fund Valuation Data Audit

Advisory Panel Meeting
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Background

- In order to be eligible for a benefit, a Firefighters' & Rescue Squad Workers' Pension Fund member (F&R) must have 20 years of membership and 20 years of contributions.
- Many members leave before becoming vested in their benefit (reaching 20 years of membership). These members are called “lapsed” members.
- Buck, as the actuary, currently assumes that all lapsed members will return to active membership and ultimately become vested in their benefit.
- A more probable lapse assumption was not previously developed due to the lack of readily available data.
- A “deeper dive” research project was requested in order to assess the ability to create a lapse assumption that would reduce both future liabilities and the State’s contribution requirement to the Plan.

Purpose and Data Assumptions

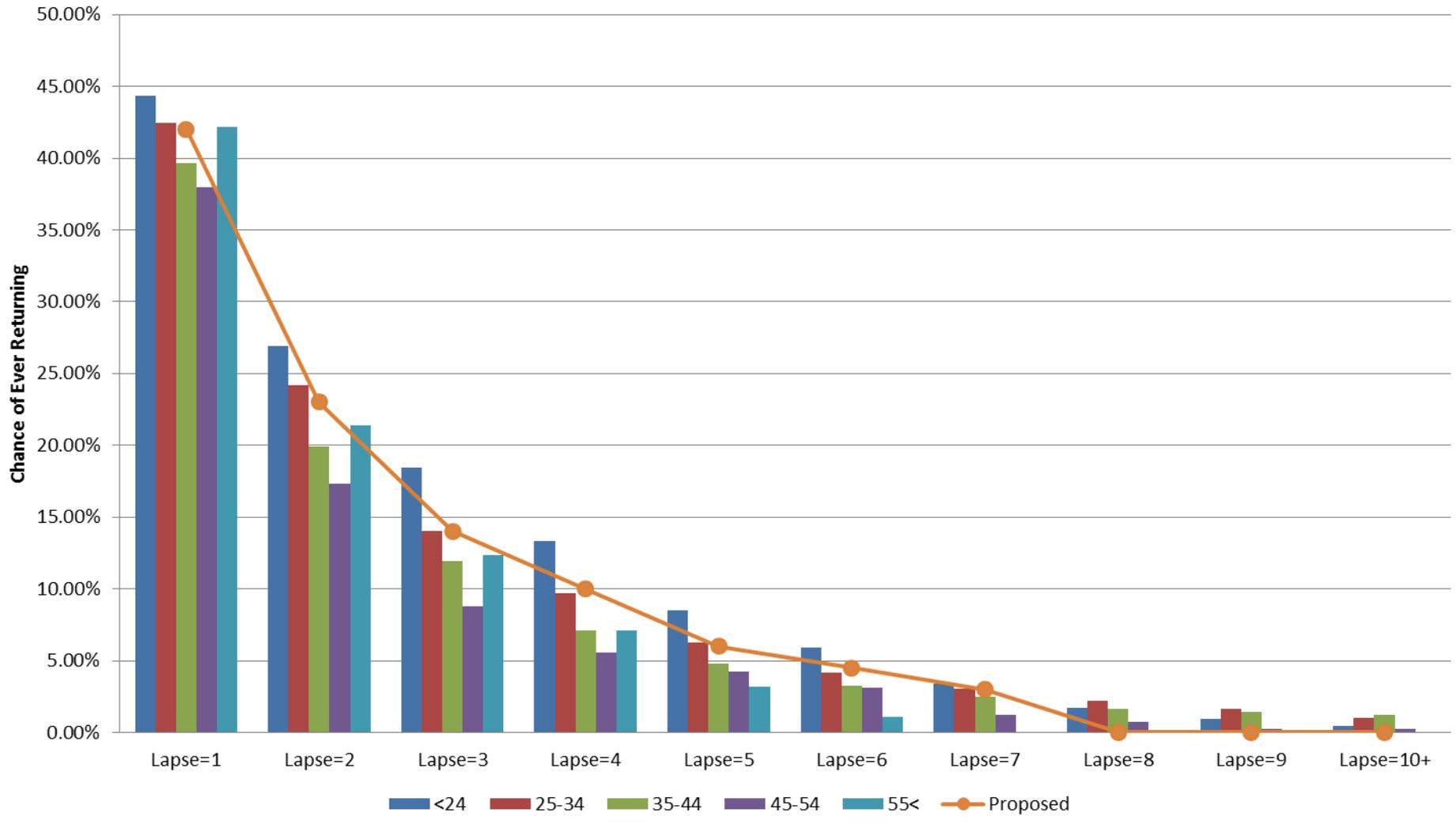
- A lapse assumption is needed for the F&R population to develop required funding contributions
 - Determine how actual incidence of return from lapse differs from the current assumption
 - Develop an updated return from lapse assumption
 - Assess impact of assumption change on funding contributions
- Analysis based on actual member experience from 1966 through 2012
 - Rates were calculated based on the members that have lapsed and returned and those that have not returned as of 2012
 - Withdrawn and deceased members were excluded as there are assumptions for these decrements
- Review this assumption to ensure it is reasonable as required by Actuarial Standards of Practice

Actual Counts

Reviewed 13,565 records as of the 2013 actuarial valuation

- Found 10,735 with actual lapses (breakdown below contains duplicates)
 - 2,005 with lapses and returned somewhere in the roster service history
 - 342 with multiple return from lapses
 - 3,391 with lapses of 8 or more years
 - Recommend contact for return of contributions
 - 7,060 currently lapsed less than 8 years
- Remaining 2,830 had updated data and no lapse

Return from Lapse by Age (at Start of Lapse)



Lapse by Age (at Start of Lapse) – Supporting Tabular Data

Numerator

Age	Lapse=1	Lapse=2	Lapse=3	Lapse=4	Lapse=5	Lapse=6	Lapse=7	Lapse=8	Lapse=9	Lapse=10
<25	496	229	141	96	58	39	22	11	6	3
25-34	955	413	211	139	86	56	41	29	22	13
35-44	641	243	132	75	49	33	25	16	14	12
45-54	248	85	39	24	18	13	5	3	1	1
54<	67	25	13	7	3	1	0	0	0	0

Denominator

Age	Lapse=1	Lapse=2	Lapse=3	Lapse=4	Lapse=5	Lapse=6	Lapse=7	Lapse=8	Lapse=9	Lapse=10
<25	1119	852	764	719	681	662	645	634	629	626
25-34	2249	1707	1505	1433	1380	1350	1335	1323	1316	1307
35-44	1618	1220	1109	1052	1026	1010	1002	993	991	989
45-54	653	490	444	429	423	418	410	408	406	406
54<	159	117	105	99	95	93	92	92	92	92

Rate of Return

Age	Lapse=1	Lapse=2	Lapse=3	Lapse=4	Lapse=5	Lapse=6	Lapse=7	Lapse=8	Lapse=9	Lapse=10
<25	44%	27%	18%	13%	9%	6%	3%	2%	1%	0%
25-34	42%	24%	14%	10%	6%	4%	3%	2%	2%	1%
35-44	40%	20%	12%	7%	5%	3%	2%	2%	1%	1%
45-54	38%	17%	9%	6%	4%	3%	1%	1%	0%	0%
54<	42%	21%	12%	7%	3%	1%	0%	0%	0%	0%

Numerator – The number of lives based on age at start of lapse and lapse period that have a lapse and returned to roster service.

- Example: There are 496 members that had a lapse of at least 1 year starting before age 25 and returned to roster service

Denominator – The number of lives based on age at start of lapse and lapse period (including those that have returned and those not expected to return).

- Example: There are 1119 members that had a lapse of at least 1 year starting before 25 including the 496 that returned and the 623 assumed not to return.

Next Steps

Recommend sending letters to multiple populations

- Lapsed members over age 65 to encourage application for return of contributions
- Lapsed members who received return of contributions in other North Carolina administered plans to encourage application for return of contributions
- Lapsed members that are not expected to return to active employment to encourage application for return of contributions
 - After confirming they have not yet returned to work (since 2012)

Recommend performing death search on all lapsed population

- Reaching out to survivors of deceased active members to encourage application for return of contributions

Set final assumptions

- Estimate impact on FYE 2017 required contribution
- Incorporate into actuarial valuation at December 31, 2015

Load updated data into ORBIT

Questions?

THANK YOU