Plan Design Study

City of Rockville Defined Benefit Pension Plan
4-45822

UNION

For Additional Information
If you have any questions about the material covered in this report, please contact your Pension Actuarial Analyst, Matt Sampogna, by:

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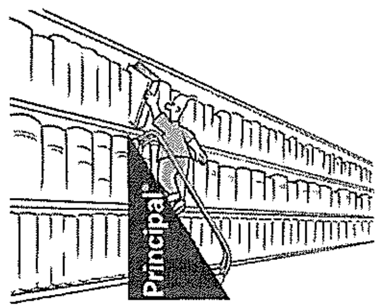

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This actuarial valuation report is for the defined benefit retirement plan named on the cover of this report. It may only be provided to other parties in its entirety. The purpose of this report is to provide you with information to fund the benefits of the plan as described in your plan document. It is based on employee data and other information you provide.

Executive Summary

section starts next page

Executive Summary

Objective

The purpose of this plan design study is to estimate the impact of potential changes to the plan formula on the future liabilities of the City of Rockville pension plan for Union employees. Please refer to our June, 2010 plan design report for the impact on Administrative employees.

Overview

The City of Rockville has retained Principal to analyze the potential future savings of several proposed changes to the retirement rules for Union employees under the pension plan. The following table summarizes the current retirement rules and two alternatives.

	Current Provisions	Age 62 Alternative	Age 65 Alternative
Normal Retirement	Age 60	Age 62 with 10 Years of Service	Age 65 with 10 Years of Service
Early Retirement	Age 50 with 10 Years of Service	Age 55 with 10 Years of Service	Age 58 with 10 Years of Service
Early Retirement Reduction	1/4 of 1% for each month the benefit commences prior to normal retirement date	3/8 of 1% for each month the benefit commences prior to normal retirement date	3/8 of 1% for each month the benefit commences prior to normal retirement date

Rule of 85

We have also valued the impact of a benefit enhancement that would grant an unreduced immediate retirement benefit to employees satisfying an age plus service "Rule of 85."

Thrift Plan Vesting

In addition to changes to the defined benefit plan, we have also estimated the cost of reducing the vesting period for City contributions to the Thrift Plan from a schedule that vests 20% per year from years three through seven of employment, to a three year cliff vesting schedule.

The Public Pension Promise

State laws generally consider public pensions to be protected as a contract right. Court rulings have held that the benefit promise to employees can not be reduced during their period of employment without voluntary consent. This poses a challenge for governments seeking to reduce their pension liabilities as plan design changes can only be made applicable to employees hired after the date of the change.

The alternative retirement age scenarios on the previous page represent benefit reductions. Therefore, we have modeled the projected impact of the proposed changes on the expected new Administrative employees hired over the next twenty years. We have not considered any voluntary acceptance of such reductions by current employees at this time.

Since the Rule of 85 retirement is a benefit enhancement, we have calculated its value for current employees as well as new hires.

Methodology

This plan design study encompasses Union personnel in the pension plan under both the Defined Benefit option (currently accruing at a rate of 1.8% of average pay per year) as well as the Thrift Plan option (1%). Since the Defined Benefit option is closed to new participants, as those members leave the population, we assumed they are replaced by an employee under the Thrift Plan formula.

The study presumes a one-to-one correspondence between members leaving the current population and entering the plan as new hires. That is, as one employee retires or terminates employment, one new employee is hired to take their place.

Since most of the proposed changes are only applicable to new employees, their implementation will have no immediate impact on the liabilities of the pension plan. Therefore, the results contained within this report will focus on the impact of the proposed changes to the actuarial accrued liability (AAL) of the new hire group projected twenty years to 2030, when a significant number of new employees have been hired.

In projecting future liabilities, we have made assumptions regarding the pattern of retirement, termination and salary growth. We have also made assumptions regarding the age and starting salary of new hires. Except where specified, all other plan provisions and assumptions used in this projection are the same as those used in the most recent valuation.

Please note that these are estimates. The actual results will depend on many demographic and economic factors that could vary significantly from those assumed here. However, the general relationship of the costs compared to one another under the various scenarios would continue to hold.

Retirement Age and Employee Behavior

In estimating future liabilities under the various scenarios it is important to take into account the impact that the retirement rules of the plan would have on the retirement behavior of employees. In general, the later full retirement benefits are available, the longer employees can be expected to defer retirement and earn additional benefits.

Our projections take this into account by assuming different retirement rates depending on the normal retirement provision of the plan. A summary of these rates is shown below:

Age	Current Provisions	Age 62 Alternative	Age 65 Alternative
50	2%		
51	2%		
52	2%		
53	2%		
54	2%		
55	5%	2%	
56	5%	2%	
57	5%	2%	
58	5%	2%	2%
59	5%	2%	2%
60	100%	5%	2%
61		5%	2%
62		100%	2%
63			5%
64			5%
65			100%

Note that current employees are assumed to retire under the Current Provision assumptions since their benefit structure is not assumed to change. Union employees hired after 2010 are assumed to follow the applicable retirement pattern of the scenario being modeled.

In addition, in determining the cost of the Rule of 85, we also assume that all current and future employees retire immediately upon reaching Rule of 85 eligibility (age plus service greater than or equal to 85.)

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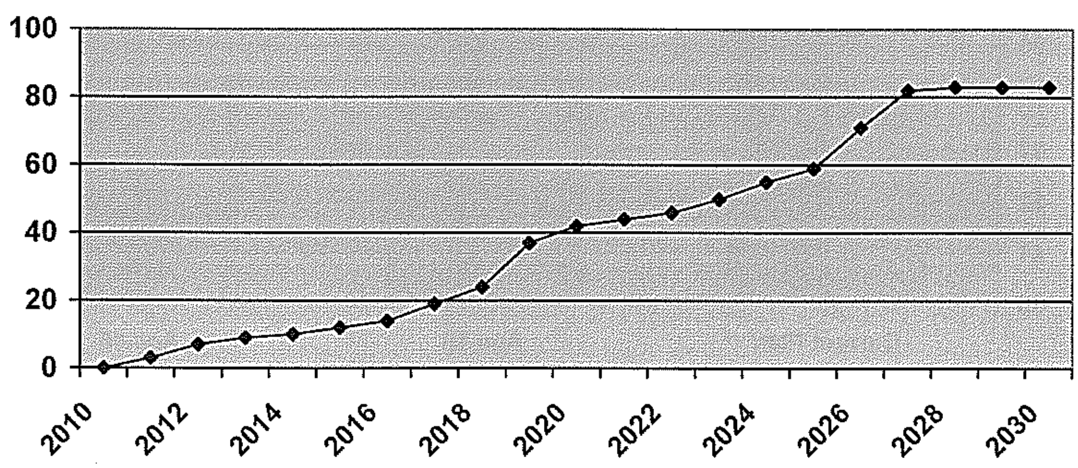
Projection Results

Demographics

The ultimate cost of retirement benefits for Union employees hired in the future will depend on the number of new employees hired. This in turn will depend on the behavior of the current employees who will need to be replaced. The following table illustrates the expected active headcount additions as current employees leave the workforce and are replaced by new participants in the pension plan. Within twenty years, we project that 80% of the current workforce will be replaced.

Administrative Employees Hired After Proposed Benefit Changes



This chart illustrates the expected new hires assuming current employees exit under under the Current Plan provisions. Addition of the Rule of 85 would result in approximately the same headcount in 2030 with slightly higher headcounts in some interim years.

Projected Costs and Savings

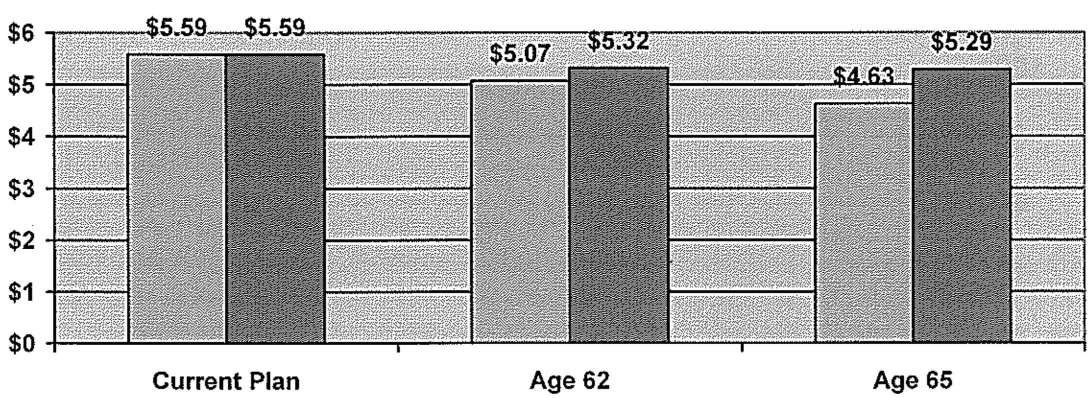
The statistic we have chosen to determine the cost savings of the proposed retirement plan changes is the actuarial accrued liability (AAL) of pensions for Union employees hired after 2010. The AAL is measured as of 2030, at which time the number of expected new employees exceeds 80.

To determine the AAL we calculate the age, service and salary of the new employees hired since 2010 as of 2030. We then apply our retirement, withdrawal, salary and mortalilty assumptions to determine the expected benefit payments for the group for all future years until death. These expected benefit payments are then discounted back to the 2030 valuation date using the plan's funding interest rate of 7.75%.

Under the Current Plan provisions the 2030 AAL is projected to be $5.59 million. Adoption of the Age 62 Alternative is projected to reduce the AAL by $0.52 million to $5.07 million (9% reduction). The Age 65 Alternative is estimated to reduce the AAL an additional $0.44 million to $4.63 million (total reduction of 17%).

This Rule of 85 adds $0.25 million to the 2030 AAL under the Age 62 Alternative, and $0.66 million under the Age 65 Alternatives. As the expected normal retirement age gets later, the Rule of 85 is applicable to more employees, resulting in a larger increase. The Rule of 85 is cost neutral on the 2030 AAL under the Current Plan provisions due to our assumption that newly hired employees reach the Rule of 85 at age 60, the age they would have retired normally. However, implementation of the Rule of 85 would immediately increase the AAL for current employees by $2.0 million (not shown).

Actuarial Accrued Liability ($ in millions)
Employees Hired after 2010 measured at 2030



Normal Retirement	60	60		62	62		65	65	
Early Retirement	50	50		55	55		58	58	
Reduction Factor (per year)	3%	3%		4.5%	4.5%		4.5%	4.5%	
Rule of 85?	No	Yes		No	Yes		No	Yes	

Age 62 Alternative Design

The Age 62 Alternative assumes that the normal retirement age is changed from attained age 60 to attained age 62 with a 10 years of vesting service requirement. In adding this condition, the early retirement age was also increased from age 50 with 10 years of vesting service to age 55 with 10 years of vesting service. Finally, the reduction for early commencement of the retirement benefit was changed from a 3% reduction per year to a 4.5% reduction per year commencement precedes normal retirement date.

This option is projected to save $0.52 million on the 2030 AAL. Implementation of the Rule of 85 would neutralize about half of of these savings.

Reconciliation of AAL for New Entrants at 2030 ($ in millions)

Current Provisions	$ 5.59
Changing Normal and Early Retirement Age	(0.70)
Changing Retirement Assumptions	0.18
Age 62 Retirement	$ 5.07
Rule of 85 Option	0.25
Age 62 Retirement with Rule of 85	$ 5.32

Age 65 Alternative Design

The Age 65 Alternative assumes that the normal retirement age is changed from attained age 60 to attained age 65 with a 10 years of vesting service requirement. In adding this condition, the early retirement age was also increased from age 50 with 10 years of vesting service to age 58 with 10 years of vesting service. Finally, the reduction for early commencement of the retirement benefit was changed from a 3% reduction per year to a 4.5% reduction per year commencement precedes normal retirement date.

This option is projected to save $0.96 million on the 2030 AAL over the Current Plan, and $0.44 million over the Age 62 Alternative. The Rule of 85 implementation would significantly offset the savings from the other proposed changes. It should be noted that the AAL of both alternative scenarios are almost equal when the Rule of 85 is included.

Reconciliation of AAL for New Entrants at 2030 ($ in millions)

Current Provisions	$ 5.59
Changing Normal and Early Retirement Age	(1.23)
Changing Retirement Assumptions	0.27
Age 65 Retirement	$ 4.63
Rule of 85 Option	0.66
Age 65 Retirement with Rule of 85	$ 5.29

Thrift Plan Vesting Schedule

We have also analyzed the cost of a potential change to the vesting schedule for the City of Rockville's Thrift Plan. In our analysis, we assumed that the current vesting schedule would be replaced with a schedule that vests 100% of City contributions at three years of service. The current schedule vests 20% of City contributions at year three, with an additional 20% vesting each year until 100% vesting is reached at year seven.

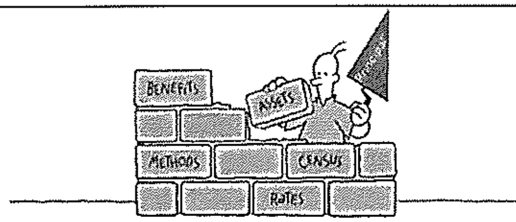
Our method of determining the cost of the change on the existing active workforce was to analyze the expected forfeitures under both schedules. Terminations were assumed to follow the same pattern as assumed in the annual valuation report for the select period after hire.

Since neither schedule vests any contributions until year three, the estimated forfeitures for the initial period are identical. The difference in the vesting schedules in years three through six is projected to result in a reduction of $47,000 in forfeitures that would have otherwise been available to offset other costs.

Estimated Forfeitures Under Vesting Schedules

Vesting Schedule	7-Year Graded	3-Year Cliff	Difference
Years 0 through 2	$ 30,000	$ 30,000	$ 0
Years 3 through 6	47,000	0	(47,000)
Total	$ 77,000	$ 30,000	$ (47,000)

Note that the immediate result of changing the vesting schedule would be an increase in vested benefits of approximately $220,000. However, all but $47,000 of this amount is projected to vest under the currect schedule by year seven.



Data and Assumptions

Census Characteristics

Union Employees as of 04/01/2009		
	DB Plan Option	Thrift Plan Option
Number of Covered Participants		
Actives	3	106
Terminated Vested	1	13
Retirees	25	5
Total	29	124
Average Age		
Actives	53.5	43.0
Terminated Vested	48.5	49.2
Retirees	70.5	66.6
Average Years of Service		
Actives	26.2	6.7

Plan Provisions

This report reflects the maximum benefit limits under Internal Revenue Code (IRC) Section 415 and maximum compensation limits under IRC Section 401 in effect on the first day of each plan year.

The plan provisions used in this report are as stated in the most recent actuarial valuation report and summarized as follows:

Normal Retirement Benefit		
Form	All employees will receive a monthly annuity guaranteed for ten years and life thereafter. Optional forms may be elected in advance of retirement.	
Amount (accrued benefit)	**Defined Benefit Option** 1.8% of average earnings times credited service	**Thrift Plan Option** The sum of (i), (ii), and (iii) : i) 1.8% of average earnings times credited service prior to 01/01/1987. ii) 1.0% of average earnings times credited service after 12/31/1986 iii) Actuarial equivalent of a lump sum payment of members Thrift Plan Option vested account balance. Member may elect a cash distribution or combination of cash and annuity

	Current Provisions	Age 62 Alternative	Age 65 Alternative
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Early Retirement Reduction	1/4 of 1% for each month the benefit commences prior to normal retirement date	3/8 of 1% for each month the benefit commences prior to normal retirement date	3/8 of 1% for each month the benefit commences prior to normal retirement date

Rule of 85	Unreduced retirement upon attainment of age plus service equal to 85.

Assumptions and Methods

Assumptions Selected for Current Plan	
Interest	During Benefit Payment Period: 7.75% Before Benefit Payment Period : 7.75%
Mortality	During Benefit Payment Period RP-2000 Combined Mortality Table, male and female, projected to 2005 with scale AA. Before Benefit Payment Period RP-2000 Combined Mortality Table, male and female, projected to 2005 with scale AA.
Assumptions Selected by Actuary	
Retirement Age	Dependent upon design alternative

Age	Current Provisions	Age 62 Alternative	Age 65 Alternative
50	2%		
51	2%		
52	2%		
53	2%		
54	2%		
55	5%	2%	
56	5%	2%	
57	5%	2%	
58	5%	2%	2%
59	5%	2%	2%
60	100%	5%	2%
61		5%	2%
62		100%	2%
63			5%
64			5%
65			100%

Upcoming Year Salary Increase	The preceding year's salary is increased using the S-5 Table from The Actuary's Pension Handbook, increased by 3.00% at each age for Thrift Plan members, 2.50% at each age for Police members, and 2.00% at each age for Defined Benefit Plan members. This table provides a rate of increase that declines as participants age.

	Upcoming Increase	
Age	Thrift Plan	DB Plan
20	8.10%	7.10%
25	7.18%	6.18%
30	6.57%	5.57%
35	6.11%	5.11%
40	5.72%	4.72%
45	5.39%	4.39%
50	5.12%	4.12%
55	4.88%	3.88%

Disability	1987 Commissioner's Group Disability Table, six month elimination period, male and female.
Marriage	75% married; husbands are 3 years older than wives.
Actuarial Cost Method	Entry age normal.
Cost of Living Increase	No explicit increase is assumed for future years.
New Employees	New employees are assumed to be 35 years of age with a 2010 starting salary of $45,000 adjusted for future years. 50% of new employees are assumed to be male, and 50% female.

Withdrawal	The illustrative rates below were used.

The illustrative rates below were used.

For employees with less than six years of service:

Service	Admin TP
0	.1200
1	.1120
2	.1040
3	.0960
4	.0880
5	.0800

For employees with six or more years of service:

V Table from August 1992 Pension Forum published by the Society of Actuaries, multiplied by 0.90 for Administrative Thrift Plan members and 0.25 for Administrative Defined Benefit members.

Sample rates of withdrawal are shown here:

Age	Admin TP	Admin DB
20	.1674	.0465
25	.1224	.0340
30	.0909	.0253
35	.0711	.0198
40	.0585	.0163
45	.0495	.0138
50	.0405	.0113

Actuary Statement

To the best of my knowledge, this report is complete and accurate. It complies with all relevant pension actuarial standards and legal requirements.

In preparing this report, I have relied on:

- reports of participants, salary, and service provided by the plan sponsor as of the last day of the 2008 plan year.
- information for any participants being paid by Principal Life Insurance Co, as of the last day of the 2008 plan year, as reported by Principal Life Insurance Company.
- plan documents on file with Principal Life Insurance Company, including changes as noted on the Summary of Plan Provisions page of this report.

Appropriate tests of reasonableness and accuracy have been made and reviewed. The information provided is adequate to support the results in this report.

I confirm that as the enrolled actuary for this pension plan, I am completely independent of the plan sponsor and any of its officers or key personnel. Neither I nor anyone closely associated with me has any relationship known to me which would impair my independence.

In my opinion, each assumption and method chosen is reasonable (taking into account the experience of the plan and reasonable expectations), and which, in combination, offer my best estimate of anticipated experience under the plan.

I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. To the best of my knowledge, this report is complete and accurate. It complies with all relevant pension actuarial standards and legal requirements.

Michael E. Clark

10/29/2010

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