

Pension Reform and Plan Design in Massachusetts Public Plans

James Lamenzo

Actuary

September 20, 2012





Components of Plan Design

- Eligibility
- Vesting
- Member Contributions
- Retirement Eligibility
- Disability Provisions
- COLA



Components of Plan Design

- Amount of Benefit
 - Job Group
 - Age
 - Service
 - Average Pay
 - Early Retirement



What is the Goal of Plan Design?

Determining a benefit formula that will meet the retirement needs of a **long-term** member



Key Questions

If you can answer these, determining the benefit formula is easy:

- How do you define a long-term member?
- What are you trying to provide for a long-term member?
- How should the cost be split between employee and employer?



Replacement Ratios

- How much do you need to maintain your standard of living?
- Common rule of thumb:
 - 70% of pay at retirement
 - 80% for low paid



Retirement Income Sources

- Defined Benefit Plans
- Defined Contribution Plans
- Social Security
- Personal Savings



Plan Design Considerations

- Job Group
- Service
- Retirement Age
- Replacement Ratio
- Cost Sharing



Employee's Share

If:

- Group 1 member
- Hired after 7/1/96
- Long-term employee
- Retire under superannuation
- Investment return assumption met

Then:

- Employee paying most, if not all, of benefit



Example 1

- Job Group: 1
- Age at Hire: 25
- Pay at Hire: \$30,000
- Pay increases 4% per year
- Employee Contributions accumulate at 8% per year



Example 1

Retirement Age	Benefit	Present Value	Accumulated Value of Employee Contributions	Member Paying for Benefit?
55	40,500	475,000	566,000	Yes
60	76,700	806,000	901,000	Yes
65	106,600	1,007,000	1,410,000	Yes



Example 2

- Job Group: 1
- Age at Hire: 25
- Pay at Hire: \$30,000
- Pay increases 5% per year
- Employee Contributions accumulate at 8% per year



Example 2

Retirement Age	Benefit	Present Value	Accumulated Value of Employee Contributions	Member Paying for Benefit?
55	53,000	611,000	647,000	Yes
60	105,200	1,095,000	1,047,000	No
65	153,400	1,439,000	1,663,000	Yes



Example 3

- Job Group: 1
- Age at Hire: 35
- Pay at Hire: \$50,000
- Pay increases 4% per year
- Employee Contributions accumulate at 8% per year



Example 3

Retirement Age	Benefit	Present Value	Accumulated Value of Employee Contributions	Member Paying for Benefit?
55	30,400	365,000	362,500	Maybe
60	61,600	654,000	611,000	No
65	112,500	1,062,000	995,000	No



Example 4

- Job Group: 1
- Age at Hire: 25
- Pay at Hire: \$30,000
- Pay increases 4% per year
- Employee Contributions accumulate at 7% per year



Example 4

Retirement Age	Benefit	Present Value	Accumulated Value of Employee Contributions	Member Paying for Benefit?
55	40,500	521,000	480,000	No
60	76,700	875,000	741,000	No
65	106,600	1,083,000	1,122,000	Yes



Pension Reform

- Chapter 21 of the Acts of 2009
- Chapter 131 of the Acts of 2010
- Chapter 188 of the Acts of 2010
- Chapter 176 of the Acts of 2011



Chapter 21 of the Acts of 2009

- Definition of Regular Compensation
- Creditable service for elected officials
- Minimum compensation for creditable service
- Dual member calculations
- Extend funding schedules to 2030



Chapter 131 of the Acts of 2010

- Cap on pension earnings
- Interest rate on returned retirement reductions



Chapter 188 of the Acts of 2010

- Funding schedule extension to 2040
- Increase in the COLA base
- Biennial actuarial valuations
- Early Retirement Incentive program



Chapter 176 of the Acts of 2011

- Purchase of Creditable Service
- Elimination of Section 10
Termination Allowances
- Anti-spiking provisions
- Pro-rating for service in more than
one job group



More Chapter 176 of the Acts of 2011

- Increase in Retirement Age eligibility
- Increase Average Annual Compensation period from 3 to 5 years
- Increase Normal Retirement Age by 2 years
- Increase early retirement reduction (reduce age factors)



Cost Implications of Major Provisions

- Changes are prospective
- Cost savings will be gradual
- To estimate long-term impact
 - Assume entire current population under prospective provisions

Average Annual Compensation 3 to 5 Years

Assuming pay increases 4% per year

Year

1	50,000		
2	52,000		
3	54,080		
4	56,240		
5	58,490		

Avg. 54,162

Avg. 56,270

Benefit reduction 3.9%

- 3 year average is 3.9% greater than 5 year average

Using actuarial assumptions and Present Value of Benefits basis

- 3.8% cost reduction



Increase Normal Retirement Age and Reduce Age Factors

Group 1 Age Factors

Age	Prior	C.176	C.176/Prior
67+	2.50%	2.50%	100.0%
66	2.50%	2.35%	94.0%
65	2.50%	2.20%	88.0%
64	2.40%	2.05%	85.4%
63	2.30%	1.90%	82.6%
62	2.20%	1.75%	79.5%
61	2.10%	1.60%	76.2%
60	2.00%	1.45%	72.5%
59	1.90%	N/A	N/A



Increase Normal Retirement Age and Reduce Age Factors

Impact on benefit varies by retirement age

- 12% reduction at age 65
- 27.5% reduction at age 60

Retirement rates will be impacted, but there is no current basis to revise.



Increase Retirement Age by Two Years

Age	Prior	“Adjusted”	Adjusted/Prior
67	2.50%	2.50%	100%
66	2.50%	2.40%	96.0%
65	2.50%	2.30%	92.0%
64	2.40%	2.20%	91.7%
63	2.30%	2.10%	91.3%
62	2.20%	2.00%	90.9%
61	2.10%	1.90%	90.5%
60	2.00%	1.80%	90.0%



Increase Retirement Age by Two Years

Benefit reduction 0% - 10%

Ages 60-65 8% - 10%

Actuarial Determined Basis

4%-5% cost reduction (estimated)



Reduce Age Factors

Prior – 4% annual reduction ($2.4/2.5 = 96\%$)

C.176 – 6% annual reduction ($2.35/2.5 = 94\%$)

Actuarial determined basis

4.0% - 5.0% cost reduction (estimated)

Again, retirement rates will be impacted.



Overall Cost Reduction

3 to 5 years	3.5% - 4.0%
Increase Retirement Age	4.0% - 5.0%
Reduce Age Factors	4.0% - 5.0%
Combined Impact	11.0% - 14.0%