

**Maine Legislative  
Retirement Program  
Actuarial Valuation Report**

**as of June 30, 2011**

**Produced by [Cheiron](#)**

**November 2011**

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November 22, 2011

Board of Trustees  
Maine Public Employees Retirement System  
#46 State House Station  
Augusta, Maine 04333-0046

Dear Members of the Board:

At your request, we have produced this report containing the full results of the June 30, 2011 actuarial valuation of the retirement plan for legislators in the Maine Legislative Retirement Program.

In performing this valuation, Cheiron used assumptions and methods that meet the parameters set by Government Accounting Standards Board (GASB) Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*. The actuarial assumptions used in this valuation have been recommended by the actuary and adopted by the Board of Trustees based upon the most recent review of the experience of the retirement plans in the programs administered by MainePERS completed in 2011. We believe the assumptions used, in the aggregate, represent our best estimate of anticipated future experience of the plan. The results of this report are dependent upon future experience conforming to these assumptions. It is certain that actual experience will not conform exactly to these assumptions. Actual amounts will differ from projected amounts to the extent actual experience differs from expected experience. The Board of Trustees has the final decision regarding the appropriateness of the assumptions.

In preparing our report, we relied without audit, on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, plan provisions, employee census data and financial information.

We did not audit this data. However, we reviewed the census data for reasonableness and for consistency with the prior year's data. We found the data to be reasonably consistent and comparable with data used in the prior valuation. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.


We hereby certify that, to the best of our knowledge, this report and its contents, which are based on the information and data supplied by the System, are work products of Cheiron, Inc. These work products are complete and accurate and have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.



Board of Trustees  
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This report was prepared solely for the Maine Public Employees Retirement System for the purposes described herein, except that the plan auditor may rely on this report solely for the purpose of completing an audit related to the matters herein. This valuation report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

Sincerely,  
Cheiron



Gene Kalwarski, FSA, EA  
Principal Consulting Actuary



Fiona E. Liston, FSA, EA  
Principal Consulting Actuary

**MAINE LEGISLATIVE RETIREMENT PROGRAM  
ACTUARIAL VALUATION AS OF JUNE 30, 2011**

**INTRODUCTION**

This report presents the results, as of June 30, 2011, of the actuarial valuation of the retirement plan for legislators in the Maine Legislative Retirement Program. Schedule A, following this introduction, contains the cost results, assets, liabilities, and accounting disclosure information. Schedule B presents a summary of plan provisions, and Schedule C presents a description of actuarial assumptions and methods used in determining costs, including a description of the funding method.

The State of Maine's annual contributions to the plans in this Program are determined on a biennial basis. The contribution rates used in the State's budgeting process to produce the applicable State budget contributions will be based on a roll forward of valuation results from every odd-numbered year. This means the contribution rates to be used for State budgets in FY 2014 and FY 2015 will be based on the liabilities of this 2011 valuation adjusted for anticipated growth in benefits and reduction due to anticipated payouts to reflect our best estimate of the June 30, 2012 liability. The budgeting process will combine this expected liability with the actual plan assets as of June 30, 2012.

The Legislature made changes to the COLA provision that applies to this plan and to the Normal Retirement Age for those members not vested as of July 1, 2011. Please see Appendix B for a summary of these changes. In addition, the costs this year reflect changes in actuarial assumptions as adopted by the Board of Trustees. Please see Appendix C for a summary of these changes.

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**APPENDIX A**  
**PARTICIPANT DATA, COSTS, AND ACCOUNTING INFORMATION**

**Valuation Results as of June 30, 2011**

**A. Participant Data**

Number of:

Active Members	173
Retired Members	116
Beneficiaries of Retired Members	22
Survivors of Deceased Members	6
Disabled Members	1
Vested Deferred Members	93
Inactive Non-Vested Members	109
<b>Total</b>	<b>520</b>

Active Payroll \$ 2,395,694

Annual Benefits for Retired Members, Beneficiaries,  
Survivors and Disabled Members \$ 268,980

**B. Cost Results**

Employer Normal Cost	<b>12.35%</b>
Unfunded Actuarial Liability	<b>(16.45%)</b>
Total Cost*	<b>0.00%</b>

**C. Accounting Information**

1. GASB Disclosure

a. Actuarial Accrued Liability

- Retirees and beneficiaries currently receiving benefits and terminated vested employees not yet receiving benefits	\$ 4,002,993
- Current employees	
-- Accumulated employee contributions including allocated investment earnings	2,228,233
-- Employer-financed vested	0
-- Employer-financed nonvested	(506,033)
- Total Actuarial Accrued Liability (AAL)	\$ 5,725,193

b. Actuarial Value of Assets (AVA) 9,040,180

c. Unfunded Actuarial Accrued Liability \$ (3,314,987)

2. Other Accounting Information

a. Market Value of Assets \$ 8,979,197

b. Unfunded Accrued Liability, (not less than \$0) \$ 0

c. Amortization Period 10 Years

\* Not less than zero.

**APPENDIX B**  
**SUMMARY OF PLAN PROVISIONS**

**1. Membership:**

Except as provided by statute, membership is mandatory for every Legislator in service in the Legislature on or after December 3, 1986, and optional for those who were members of the Retirement System on December 2, 1986.

Membership ceases on the earlier of withdrawal of contributions, retirement, or death.

**2. Member Contributions:**

Members are required to contribute 7.65% of earnable compensation.

**3. Average Final Compensation:**

For purposes of determining benefits payable, average final compensation is the average annual rate of earnable compensation for the three years of creditable service (not necessarily consecutive) as a legislator which produce the highest such average.

**4. Creditable Service:**

Creditable service includes the following:

- A. all legislative service as a member after December 2, 1986;
- B. all legislative service before December 3, 1986, for which contributions have been made to the Retirement System at the applicable rate, including appropriate interest;
- C. service credited while receiving disability benefits under the Program; and
- D. all service creditable under the Retirement System as a State Employee, provided the member elects to have the member's own and the employer's contributions on behalf of such service transferred to the Legislative Program.

**5. Service Retirement Benefits:**

Eligibility:

***A. Eligibility for Members with at Least Ten Years of Creditable Service on July 1, 1993***

- i. Eligibility for members in active service and inactive members:
  - 25 years of creditable service.
- ii. Eligibility alternative for members in active service:
  - Attainment of age 60.

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- iii. Eligibility for members not in active service at retirement, and not in active service on or after October 1, 1999:

Attainment of age 60 and ten years of creditable service.

- iv. Eligibility for members not in active service at retirement, but in active service on or after October 1, 1999:

Attainment of age 60 and five years of creditable service.

***B. Eligibility for Members with Less Than Ten Years of Creditable Service on July 1, 1993***

- i. Eligibility for members in active service and inactive members:

25 years of creditable service.

- ii. Eligibility alternative for members in active service:

Attainment of age 62.

- iii. Eligibility for members not in active service at retirement, and not in active service on or after October 1, 1999:

Attainment of age 62 with ten years of creditable service.

- iv. Eligibility for members not in active service at retirement, but in active service on or after October 1, 1999:

Attainment of age 62 and five years of creditable service.

***C. Eligibility for Members With Less Than Five Years of Creditable Service on July 1, 2011***

- i. Eligibility for members in active service and inactive members:

25 years of creditable service.

- ii. Eligibility alternative for members in active service:

Attainment of age 65.

- iii. Eligibility for members not in active service at retirement, and not in active service on or after October 1, 1999:



**APPENDIX B**  
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Attainment of age 65 with ten years of creditable service.

- iv. Eligibility for Members not in Active Service at Retirement, but in Active Service on or After October 1, 1999:

Attainment of age 65 and five years of creditable service.

Benefit: 1/50 of average final compensation multiplied by years of creditable service, reduced for retirement before age 60 at the rate of approximately 2¼% for each year retirement age is less than age 60, for members with at least ten years creditable service on July 1, 1993; reduced for retirement before age 62 at the rate of 6% for each year retirement age is less than age 62, for members with less than ten years creditable service on July 1, 1993; reduced for retirement before age 65 at the rate of 6% for each year retirement age is less than age 65, for members with less than five years creditable service on July 1, 2011; minimum benefit \$100 per month if at least ten years of creditable service.

Form of Payment: Life annuity.

**6. Disability Retirement Benefits Other Than No Age Benefits (See Item 7):**

Eligibility: Disabled as defined in the MainePERS statutes, prior to normal retirement age; employed prior to October 16, 1992 and did not elect No Age Disability Option.

Benefit: 66-2/3% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with worker's compensation and Social Security, exceeds 80% of average final compensation.

Form of Payment: Payment begins on termination of service and ceases on cessation of disability or after five years, unless the member is unable to engage in any substantially gainful activity; in which case payments cease on the earlier of ten years following normal retirement age or the date the service retirement benefit equals or exceeds the disability benefit.

Conversion to Service Retirement: During the period of disability, average final compensation is increased with cost-of-living adjustments and service is credited. On the date when service benefits reach a level of 66-2/3% of average final compensation or ten years after the normal retirement date, if earlier, the disability benefit converts to a service retirement benefit based on service and average final compensation at that point.

**7. No Age Disability Retirement Benefits:**

Eligibility: Disabled as defined in the MainePERS statutes; employed on or after October 16, 1992 or employed prior to October 16, 1992 and elected the provisions of No Age Disability.

**APPENDIX B**  
**SUMMARY OF PLAN PROVISIONS**

**Benefit:** 59% of average final compensation, reduced by employment earnings over the specified statutory limit, and to the extent that the benefit, in combination with worker's compensation and Social Security, exceeds 80% of average final compensation.

**Form of Payment:** Payment begins on termination of service and ceases on cessation of disability or after five years, unless the member is unable to engage in any substantially gainful activity; in which case payments cease on the date the service retirement benefit equals or exceeds the disability benefit.

**Conversion to Service Retirement:** During the period of disability, average final compensation is increased with cost-of-living adjustments and service is credited. On the date when service benefits reach a level of 59% of average final compensation, the disability benefit converts to a service retirement benefit based on service and average final compensation at that point.

**8. Pre-Retirement Ordinary Death Benefits:**

**Eligibility:** Death while active, inactive eligible to retire or disabled.

**Benefit:** Designated beneficiary, spouse, child(ren), or parents entitled to benefit calculated as if deceased member had retired under Option 2 (see item 12); however, beneficiary may elect survivor benefits payable to a surviving spouse, dependent child(ren), parents, or other designated beneficiaries in monthly amounts varying by status of beneficiary and number of eligible survivors. Otherwise, accumulated contributions with interest are payable to designated beneficiary, spouse, child(ren), older parent or estate.

**9. Pre-Retirement Accidental Death Benefits:**

**Eligibility:** Death while active or disabled resulting from injury received in the line of duty.

**Benefit:** If the member leaves no dependent children, two-thirds of the member's average final compensation to the surviving spouse until death.

- If the member is survived by a spouse who has the care of dependent child(ren) of the member, the surviving spouse shall receive an annual sum equal to the member's average final compensation. When there is no longer any dependent child, the surviving spouse shall receive two-thirds of member's average final compensation until death.
- If the member is survived by a spouse who does not have the care of the member's dependent child(ren), the surviving spouse and dependent child(ren) shall share equally an annual sum equal to the member's average final compensation. When there is no longer any dependent child, the surviving spouse shall receive two-thirds of member's average final compensation until death.

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- If the member leaves no spouse, the dependent child(ren) shall be paid an annual amount equal to the member's average final compensation. Benefits will cease when the last dependent child no longer meets the definition of "dependent child."

**10. Refund of Contributions:**

Eligibility: Termination of service without retirement or death.

Benefit: Member's accumulated contributions with interest.

**11. Cost-of-Living Adjustments:**

All service and disability retirement and survivor benefits are adjusted each year that there is a percentage change in the Consumer Price Index, based on the Index. If the percentage change is negative then no adjustment is made in that year. In subsequent years the adjustment that would have been made will be adjusted downward to the extent necessary to recoup the full actuarial value of not having made the previous year's negative adjustment. This process of adjustment may occur over a multi-year period if needed to recoup the full value of the non-zero COLA.

Cost-of-living adjustments are effective September 1 and are applied to that portion of the benefit which is not in-excess of \$20,000 (indexed) for all benefits which have been in payment for twelve months. The maximum annual increase is 3%. Average final compensation used in determining disability benefits for disabled members is similarly adjusted for purposes of determining the recipient's service retirement benefit if and when the recipient moves to service retirement.

Members on service retirement who did not have ten years of service on July 1, 1993 will not receive a cost-of-living adjustment until 12 months after their normal retirement age.

No cost-of-living adjustments will be made until September 2014.

**12. Methods of Payment of Service Retirement Benefits:**

At retirement, a member who retires with a benefit must choose from the following methods of payment:

Full Benefit: Unadjusted benefit is paid for the life of the member only.

Option 1: Cash refund equal to the remaining employee contribution balance, if any, at the date of death (where the employee contribution balance has been reduced each month by the portion of the monthly benefit deemed to be provided by employee contributions).

Option 2: 100% joint and survivor annuity.

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Option 3: 50% joint and survivor annuity.

Option 4: Joint and survivor annuity at any percentage other than those available under Option 2 and Option 3.

Option 5: Designated percentage of the benefit (not less than 51%) payable to the member, with the remaining percentage (the two to equal 100%) payable to a beneficiary (may only be a sole beneficiary) while both are alive. At the death of either, the higher of the two percentages is paid to the survivor for the survivor's life, and the lower-percentage benefit ceases to be paid.

Option 6: 100% joint and survivor annuity (Option 2) with pop-up\*.

Option 7: 50% joint and survivor annuity (Option 3) with pop-up\*.

Option 8: Option 4 with pop-up\*.

\* The "pop-up" feature attached to a given Option means that in the case of a beneficiary predeceasing the member, the member's benefit will be revised prospectively to the amount that the benefit would have been had the member selected Full Benefit payment upon retirement.

**13. Changes since last Valuation:**

Members with less than five years of creditable service on July 1, 2011 – As detailed in #5 above, members who are not vested by July 1, 2011 and all those hired after July 1, 2011 will reach Normal Retirement Age at age 65. Early Retirement benefits are reduced from age 65.

Cost of Living – As detailed in #11 above, the cap on the annual COLA was lowered from 4.0% per year to 3.0% per year. Also, COLAs are only granted on the first \$20,000 of annual benefit (indexed). No cost-of-living adjustments will be made until September 2014.

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**APPENDIX C  
ACTUARIAL ASSUMPTIONS AND METHODS**

Any changes from the assumptions found in Schedule C of the 2010 report have been highlighted below.

**A. Actuarial Assumptions**

1. **Annual Rate of Investment Return:** 7.25%
2. **Annual Rate of Salary Increase:** 3.50%
3. **Annual Cost-of-Living Increase:** 2.55%
4. **Normal Retirement Age:**

Age 60 for members with at least ten years of creditable service on July 1, 1993.

Age 62 for members with less than ten years of creditable service on July 1, 1993.

Age 65 for members with less than five years of creditable service on July 1, 2011.

5. **Probabilities of Employment Termination at Selected Ages Due to:**

Age	Disability	Termination	Death	
			Male	Female
25	.0006	.07	.0003	.0002
30	.0006	.06	.0004	.0002
35	.0007	.05	.0007	.0004
40	.0011	.04	.0010	.0006
45	.0022	.03	.0012	.0009
50	.0042	.02	.0016	.0013
55	.0072	.01	.0027	.0024

6. **Rate of Healthy Life Mortality at Selected Ages:**

Age	Male	Female
55	.0028	.0015
60	.0086	.0048
65	.0156	.0093
70	.0255	.0148
75	.0400	.0244
80	.0667	.0424

Rates are based on the RP-2000 Mortality Table for Males and Females, projected with scale AA to 2015.

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**7. Rates of Disabled Life Mortality at Selected Ages:**

Age	Male	Female
25	.0092	.0072
30	.0112	.0089
35	.0134	.0109
40	.0160	.0126
45	.0193	.0144
50	.0236	.0165
55	.0295	.0191

Rates are based on the Revenue Ruling 96-7 Disabled Mortality Table for Males and Females.

**8. Family Composition Assumptions:**

80% of active members are married and have two children born when the member is 24 and 28; children are dependent until age 18; female spouse is three years younger than male spouse; member has no dependent parents; unmarried members have beneficiaries entitled to benefits worth 80% as much as those of married members' beneficiaries.

**9. Date of Adoption of Assumptions:**

The assumptions were adopted by the Trustees as a result of the latest experience study review performed in 2011 and covering the period July 1, 2005 through June 30, 2010.

**10. Assumption Changes Since Last Valuation:**

See highlighted areas above.

**APPENDIX C**  
**ACTUARIAL ASSUMPTIONS AND METHODS**

**B. Actuarial Methods**

**1. Funding Method:**

The Entry Age Normal actuarial funding method is used to determine costs. Under this funding method, the total employer contribution rate consists of two elements, the normal cost rate and the unfunded actuarial liability (UAL) rate.

The normal cost rate is developed for a typical new entrant. This rate is determined by taking the value, as of entry age to the plan, of the member's projected future benefits, reducing it by the value of future member contributions, and dividing it by the value, also as of the member's entry age, of the member's expected future salary.

In addition to contributions required to meet the program's normal cost, contributions will be required to fund the program's unfunded actuarial liability. The actuarial liability is defined as the present value of future benefits, less the present value of future normal costs and future member contributions. The unfunded actuarial liability is the total actuarial liability less the actuarial value of plan assets.

The unfunded liability is amortized by annual payments over an open 10-year period. The payments are determined so that they will be a level percentage of pay, assuming total pay increases 3.50% per year.

**2. Asset Valuation Method:**

For purposes of determining the State contribution to the plans in the Program, we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

In determining the actuarial value of assets, we calculate an expected actuarial value based on cash flow for the year and imputed returns at the actuarial assumption. This expected value is compared to the market value and one-third of the difference is added to the preliminary actuarial value to arrive at the final actuarial value.