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GASB STATEMENT NO. 67 REPORT
FOR THE
CONNECTICUT MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM
PREPARED AS OF JUNE 30, 2014
(REVISED 9/28/2015)





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

September 28, 2015

State of Connecticut
State Employees' Retirement Commission
55 Elm Street
Hartford, CT 06106

Members of the Commission:

Presented in this report is information to assist the Connecticut Municipal Employees' Retirement System in meeting the requirements of the Governmental Accounting Standards Board (GASB) Statement No. 67. The information is presented for the period ending June 30, 2014.

The annual actuarial valuation used as a basis for much of the information presented in this report was performed as of June 30, 2014. The valuation was based on data, provided by the Retirement System staff for active, inactive and retired members along with pertinent financial information.

The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the System, and on actuarial assumptions that are, individually and in the aggregate, internally consistent and reasonably based on the actual experience of the System. In addition, the calculations were completed in compliance with the laws governing the System and, in our opinion, meet the requirements of GASB 67. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

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Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

Sincerely yours,

A handwritten signature in blue ink that reads 'John J. Garrett'.

John J. Garrett, ASA, MAAA, FCA
Principal and Consulting Actuary

A handwritten signature in blue ink that reads 'Edward J. Koebel'.

Edward J. Koebel, FCA, EA, MAAA
Principal and Consulting Actuary



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Section I - Introduction

The Governmental Accounting Standards Board issued Statement No. 67 (GASB 67), “Financial Reporting for Pension Plans,” in June 2012. GASB 67’s effective date is for plan years beginning after June 15, 2013. This revised report, prepared as of June 30, 2014 (both the Valuation Date and the Measurement Date), presents information to assist the Connecticut Municipal Employees Retirement System (MERS) in meeting the requirements of GASB 67. The revision is necessary to align the determination of the MERS fiduciary net position with the amounts provided in financial reports. MERS is categorized as a cost-sharing multiple-employer plan for GASB purposes. Much of the material provided in this report is based on the data, assumptions and results of the annual actuarial valuation of MERS as of June 30, 2014. Assumption changes were adopted by the Retirement Commission applicable for valuations beginning on or after the June 30, 2012. Those actuarial assumptions are included in Appendix A.

GASB 67 replaces GASB 25 and represents a significant departure from the requirements of that older statement. GASB 25 was issued as a funding friendly statement that required pension plans to report items consistent with the results of the plan’s actuarial valuations, as long as those valuations met certain parameters. GASB 67 basically divorces accounting and funding, creating disclosure and reporting requirements that may or may not be consistent with the basis used for funding the Plan.

A major change in GASB 67 is the requirement to determine the Total Pension Liability (TPL) utilizing the Entry Age Normal actuarial funding method. The Net Pension Liability (NPL) is the TPL minus the Plan’s Fiduciary Net Position (FNP) (basically the market values of assets). It is important to note that an employer entering MERS may elect to credit all or a portion of the past service of eligible employees. In these cases, the employer is obligated to pay annual amounts necessary to fully amortize over 30 years the calculated initial liability established for the past service of employees. For the purposes of GASB, these amounts are treated as installment contracts for each employer and the FNP includes the present value (using the plan’s discount rate) of all future initial liability amortization payments. See Section IV of this report for the receivable initial amortization liability payments.

Among the assumptions needed for the liability calculation is a Single Equivalent Interest Rate (SEIR). To determine the SEIR, the FNP of MERS must be projected into the future for as long as there are anticipated benefits payable under the plan’s provision applicable to the membership and beneficiaries of the Plan on the Measurement Date. If the FNP is projected to not be depleted at any point in the future, which is the current result for MERS, the long term expected rate of return on plan investments expected to be used to finance the benefit payments may be used as the SEIR.



Section I - Introduction

If, however, in a future year, the FNP is projected to be depleted, the SEIR is determined as the single rate that will generate a present value of benefit payments equal to the sum of the present value determined by discounting all projected benefit payments through the date of depletion by the long term expected rate of return, and the present value determined by discounting those benefits after the date of depletion by a 20-year tax-exempt municipal bond (rating AA/Aa or higher) rate. The rate used, if necessary, for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index published monthly by the St. Louis Federal Reserve Bank. We have determined that a discount rate of 8.00 percent meets the requirements of GASB 67.

To the best of our knowledge, this supplemental report is complete and accurate. It relies on much of the information contained in the biennial actuarial valuations of MERS. The annual valuation reports should be distributed along with this report to interested parties. The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. Further, the calculations were prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board and, in our opinion, meet the requirements of GASB 67. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

The sections that follow provide the results of all the necessary calculations for MERS, presented in the order laid out in GASB 67 for note disclosure and Required Supplementary Information (RSI).



Section II – Financial Statement Notes

The material presented herein will follow the order presented in GASB 67. Paragraph numbers are provided for ease of reference.

The data required by paragraph 30(a)(4) regarding the Plan membership were furnished by the Retirement System. The following table summarizes the membership of the System as of June 30, 2014, the Actuarial Valuation Date.

Membership

Category	Number
Inactive Members or Their Beneficiaries Currently Receiving Benefits	6,511
Inactive Members Entitled to But Not Yet Receiving Benefits	1,258
Active Members	8,477
Total	16,246

The information required by paragraph 31(a) is provided in the following table. As stated above, the Net Pension Liability is equal to the Total Pension Liability minus the Plan's Net Position. That result as of June 30, 2014 for MERS in total is presented in the table below.

Calculation of the Net Pension Liability (NPL) of MERS as of Fiscal Year Ending June 30, 2014 (Dollars in thousands)	
Total Pension Liability (TPL)	\$2,500,840
Plan's Fiduciary Net Position (FNP)	<u>\$2,262,724</u>
Net Pension Liability (NPL)	\$238,116
Ratio of Fiduciary Net Position to Total Pension Liability	90.48%

Paragraph 31(b) requires information regarding the actuarial assumptions used to measure the TPL. The actuarial assumptions utilized in developing the TPL are those contained in Appendix



Section II – Financial Statement Notes

A of this report. These assumptions were adopted by the Board and first used in the June 30, 2012 actuarial valuation.

Long-Term Expected Rate of Return

The long-term expected rate of return on pension plan investments is determined using statistical analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and most recent best estimates of arithmetic real rates of return for each major asset class are to be provided by the Fiduciary of the Plan.

Discount rate. The discount rate used to measure the total pension liability was 8.00 percent. The projection of cash flows used to determine the discount rate assumed that future contributions will be made in accordance with statutory rates. On this basis, the pension plan’s fiduciary net position together with the expected future contributions are sufficient to provide all projected future benefit payments of current plan members as determined in accordance with GASB Statement No. 67. Therefore, the 8.00% assumed long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Paragraph 31(b)(1)(g) requires disclosure of the sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of PERA, calculated using the discount rate of 8.00 percent, as well as what MERS’s net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (7.00 percent) or 1-percentage-point higher (9.00 percent) than the current rate:

Sensitivity of Net Pension Liability to Changes in the Discount Rate (\$000)

	1% Decrease (7.00%)	Current Discount Rate (8.00%)	1% Increase (9.00%)
Net Pension Liability	\$544,393	\$238,116	\$(19,553)



Section II – Financial Statement Notes

June 30, 2014 is the actuarial valuation date upon which the TPL is based. Paragraph 31(c) requires an expected TPL to be determined as the beginning of the year using standard roll back techniques. The roll back calculation subtracts the annual normal cost (also called the service cost), adds the actual benefit payments and refunds for the plan year and then applies the expected investment rate of return for the year. The procedure was used to determine the beginning of year TPL, as shown in the following table:

Calculation of TPL Roll-Back (\$ in thousands)	
(a) TPL as of June 30, 2014	\$2,500,840
(b) Entry Age Normal Cost for the Year July 1, 2013 – June 30, 2014 with interest to June 30, 2014	59,764
(c) Actual Benefit Payments for the Year July 1, 2013 – June 30, 2014	123,073
(d) TPL at beginning of year = [(a) - (b) + ((c) x 1.04)] / 1.08	\$2,378,770



Section III – Required Supplementary Information

There are several tables of Required Supplementary Information (RSI) that are required under GASB No. 67. The tables for paragraphs 32(a)-(c) are provided on the following pages. The beginning of year total pension liability (TPL) was determined by “rolling-back.” This method determines the beginning of year amount by assuming that there were no changes in the TPL during the year due to actual experience being different than expected for that plan year.



Section III – Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY GASB 67 Paragraph 32(a) (\$ in thousands)

	2014	2015	2016	2017	2018
Total pension liability					
Service Cost	59,764				
Interest	185,379				
Benefit changes	0				
Difference between expected and actual experience	0				
Changes of assumptions	0				
Benefit payments	(121,721)				
Refunds of contributions	<u>(1,352)</u>				
Net change in total pension liability	122,070				
Total pension liability - beginning	2,378,770				
Total pension liability - ending (a)	2,500,840				
Plan net position					
Contributions - employer	68,943				
Initial Liability Payments	80,843				
Contributions - member	18,998				
Net investment income	257,808				
Benefit payments	(121,721)				
Administrative expense	0				
Refunds of contributions	(1,352)				
Other*	<u>(73,482)</u>				
Net change in plan net position	230,037				
Plan net position - beginning**	2,032,687				
Plan net position - ending (b)**	2,262,724				
Net pension liability - ending (a) - (b)	238,116				

*Includes (73,495) change in receivable Initial Liability Payments

** These amounts include the future initial liability amortization payments from Section IV of this report.



Section III – Required Supplementary Information

SCHEDULE OF THE NET PENSION LIABILITY
GASB 67 Paragraph 32(b)
(\$ in thousands)

	2014	2015	2016	2017	2018
Total pension liability	\$ 2,500,840				
Plan net position	<u>2,262,724</u>				
Net pension liability	<u>\$ 238,116</u>				
Ratio of plan net position to total pension liability	90.48%				
Covered-employee payroll	\$ 485,745				
Net pension liability as a percentage of covered-employee payroll	49.02%				



Section III – Required Supplementary Information

SCHEDULE OF EMPLOYER CONTRIBUTIONS
GASB 67 Paragraph 32(c)
(\$ in thousands)

Fiscal Year Ending June 30	2014
Actuarially Determined Contributions	\$68,943
Actual employer contributions	<u>68,943</u>
Annual contribution deficiency (excess)	<u>\$0</u>
Covered-employee payroll	\$485,745
Actual contributions as a percentage of covered-employee payroll	14.19%



Section IV: Notes to Required Schedules

Summary of Actuarial Methods and Assumptions Used in GASB Information

Actuarial valuation date	June 30, 2014
Actuarial cost method	Entry Age Normal
Amortization method	Level Dollar, Closed
Amortization period	27 years remaining
Asset valuation method	Market Value on the measurement date. Plan's fiduciary net position also includes the present value of receivable initial liability payments established by participating employers upon entry into MERS. An 8.0% discount rate is used in the present value calculation which is shown in the table below.

Calculation of Present Value of Receivable Initial Liability Payments (\$ in thousands)	
(a) Beginning of Year Present Value of Receivable Initial Liability Amortization Payments	\$172,700
(b) Payments Applied at Beginning of Year	80,843*
(c) Interest at 8.0% on Beginning of Year Balance [(a) – (b)] x .08	\$7,348
(d) End of Year Present Value of Receivable Initial Liability Amortization Payments (a) - (b) + (c)	\$99,205

*Includes \$56,708,806 of assets transferred on behalf of Bridgeport Police and \$17,613,070 of assets transferred on behalf of Bridgeport Fire.

In addition, under paragraph 34, the following should be noted regarding the RSI:

There were no changes to the actuarial assumptions, methods or the benefit terms of MERS which impact the measurements provided in this supplemental report.

Actuarial Assumptions:

Investment rate of return	8.00% annual rate net of investment expenses.
Projected salary increases	4.25% to 11.00% annual rate
Includes inflation at	3.25% annual rate



Appendix A: Actuarial Assumptions

Adopted or reaffirmed by the Commission for the June 30, 2012 and later valuations.

VALUATION INTEREST RATE: 8.00% per annum, compounded annually, net of investment expenses.

SALARY INCREASES: Representative values of assumed annual rates of salary increase are as follows:

Age	Annual Rates of				
	Merit & Seniority		Base (Economy)	Increase Next Year	
	General Employees	Firemen & Policemen		General Employees	Firemen & Policemen
20	7.50%	7.50%	3.50%	11.00%	11.00%
25	5.50%	7.50%	3.50%	9.00%	11.00%
30	4.50%	3.50%	3.50%	8.00%	7.00%
35	3.50%	2.50%	3.50%	7.00%	6.00%
40	2.50%	1.50%	3.50%	6.00%	5.00%
45	2.50%	1.00%	3.50%	6.00%	4.50%
50	2.00%	0.75%	3.50%	5.50%	4.25%
55	1.00%	0.75%	3.50%	4.50%	4.25%
60	0.75%	0.75%	3.50%	4.25%	4.25%
65	0.75%		3.50%	4.25%	
70	0.75%		3.50%	4.25%	

COST OF LIVING ADJUSTMENTS: Annually compounded increases are applied to disabled and non-disabled retirement benefits and vary based upon member age and date of retirement. For members that retired prior to January 1, 2002, increases of 3.25% are assumed for those who have reached age 65 and (effective January 1, 2002) increases of 2.50% are assumed for those who have not yet reached age 65. For members that retire after December 31, 2001, increases of 2.50% are assumed, regardless of age.

SOCIAL SECURITY WAGE BASE INCREASES: 3.50% per annum.



Appendix A: Actuarial Assumptions

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of separation before service retirement are as follows:

GENERAL EMPLOYEES

Age	Withdrawal and Vesting - Male	Withdrawal and Vesting - Female	Non-Service Related Disability*	Death	Service Retirement
20	18.00%	20.00%	0.02%	0.01%	
25	18.00	20.00	0.02	0.01	
30	12.00	15.00	0.03	0.01	
35	10.00	12.00	0.04	0.02	
40	7.50	10.00	0.05	0.02	
45	5.00	7.50	0.07	0.03	15.00%
50	5.00	5.00	0.12	0.05	15.00
55	5.00	5.00	0.44	0.08	7.00
60	5.00	5.00	0.86	0.12	10.00
65	5.00	5.00	1.84	0.20	20.00
70	5.00	5.00	2.99	0.31	15.00
75					100.00

POLICEMEN AND FIREMEN

Age	Withdrawal and Vesting	Service Related Disability*	Death	Service Retirement
20	7.00%	0.11%	0.01%	
25	7.00	0.14	0.01	
30	5.00	0.15	0.01	
35	4.00	0.22	0.02	
40	2.00	0.32	0.02	
45	1.00	0.49	0.03	25.00%
50	0.00	1.11	0.05	20.00
55	0.00	3.03	0.08	12.00
60	0.00	6.88	0.12	20.00
65				100.00

*Service related disability rates for General Employees and Non-Service related disability rates for Policemen and Firemen are assumed to be zero at all ages.



Appendix A: Actuarial Assumptions

DEATHS AFTER RETIREMENT: The RP2000 Mortality Table for Annuitants and Non-Annuitants (set forward one year for males and set back one year for females) is used for the period after retirement and for dependent beneficiaries. Representative values of the assumed annual rates of mortality are as follows:

Age	Men	Women	Age	Men	Women
40	0.114%	0.065%	65	1.441%	0.862%
45	0.162	0.103	70	2.457	1.486
50	0.245	0.155	75	4.217	2.546
55	0.420	0.242	80	7.204	4.151
60	0.768	0.444	85	12.280	6.952

For disabled retirees, the same table is used, adjusted with the male table set forward five years and the female table set forward one year.

VALUATION ASSET METHOD: Market Value.

VALUATION METHOD: Entry Age Normal Cost method. See Schedule E for a brief description of this method.

SPOUSES: For members who have elected spouse coverage, husbands are assumed to be three years older than their wives.

PERCENT MARRIED: 80% of active members are assumed to be married.

LOAD: For those members who retired under and joint & survivor option and have no reported information for a prospective beneficiary, a probabilistic factor was applied to the reversionary portion of the liability. The factor measures the survivorship of the assumed spouse (with men three years older than women) from the date of retirement to the valuation date, based on the assumptions for death after retirement.



Appendix B: Main Benefit and Contribution Provisions

MEMBERSHIP

Municipalities may designate which departments (including elective officers if so specified) are to be covered under the Municipal Employees Retirement System. This designation may be the result of collective bargaining. Only employees covered under the State Teachers Retirement System may not be included. There are no minimum age or service requirements. Membership is mandatory for all regular full time employees of participating departments except Police and Fire hired after age 60.

DEFINITIONS

Average Final Compensation	Average of the three highest paid years of service.
Normal Form of Benefit	Life annuity.
Year's Breakpoint	With respect to the calendar year in which a member terminates service, \$10,700 increased by 6.0% each year after 1982, rounded to the nearest multiple of \$100. For 2014, the breakpoint is \$69,200.

BENEFITS

Service Retirement Allowance

Condition for Allowance	Age 55 and 5 years of continuous service, or 15 years of active aggregate service, or 25 years of aggregate service. Compulsory retirement at age 65 for police and fire members.
Amount of Allowance	For members not covered by Social Security: 2% of average final compensation times years of service. For members covered by Social Security: 1-1/2% of the average final compensation not in excess of the year's breakpoint plus 2% of average final compensation in excess of the year's breakpoint, times years of service. The maximum benefit is 100% of average final compensation and the minimum benefit is \$1,000 annually. Both the minimum and the maximum include Workers Compensation and Social Security benefits.



Appendix B: Main Benefit and Contribution Provisions

If any member covered by Social Security retires before age 62, his/her benefit until he/she reaches age 62 or receives a Social Security disability award is computed as if he/she were not under Social Security.

Non-Service Connected Disability Retirement Allowance

Condition for Allowance 10 years of service and permanently and totally disabled from engaging in any gainful employment in the service of the Municipality.

Amount of Allowance Calculated as a service retirement allowance based on compensation and service to the date of the disability.

Service Connected Disability

Condition for Allowance Totally and permanently disabled from engaging in any gainful employment in the service of the Municipality provided such disability has arisen out of and in the course of his/her employment with the Municipality. Disability due to hypertension or heart disease, in the case of firemen and policemen, is presumed to have been suffered in the line of duty.

Amount of Allowance Calculated as a service retirement allowance based on compensation and service to the date of the disability with a minimum benefit (including Worker's Compensation benefits) of 50% of compensation at the time of the disability.

Vesting Retirement Allowance

Condition for Allowance 5 years of continuous or 15 years of active aggregate service.

Amount of Allowance Calculated as a service retirement allowance on the basis of average final compensation and service to the date of termination. Deferred to normal retirement age, or an actuarially reduced allowance may begin at the time of separation.



Appendix B: Main Benefit and Contribution Provisions

Death Benefit

Condition for Benefit Eligible for service, disability retirement, or vested allowance, and married for at least 12 months preceding death.

Amount of Benefit Computed on the basis of the member's average final compensation and creditable service at date of death, payable to the spouse. Benefit is equal to 50% of the average of the life annuity allowance and the reduced 50% joint and survivor allowance.

Return of Deductions

Upon the withdrawal of a member the amount of his accumulated deductions is payable to him/her on demand, with 5% interest from July 1, 1983.

Optional Benefits

Prior to the retirement, a member may elect to convert his retirement allowance into a benefit of equivalent actuarial value in accordance with one of the optional forms described below:

1. A reduced retirement allowance payable during his life with the provision that after his death the beneficiary designated by him at the time of his retirement; or
2. A reduced retirement allowance payable during his life with the provision that after his death an allowance of one half of his reduced allowance will be continued for life to the beneficiary designated by him at the time of his retirement;
3. A reduced retirement allowance payable during his life with a guarantee of 120 or 240 monthly payments to the member or his designated beneficiary.

Cost-of-Living Adjustment

For those retired prior to January 1, 2002:

- (i) The benefits of disabled retirees, service retirees who have reached age 65, and beneficiaries of deceased retirees who would have reached age 65 are adjusted each July 1. The difference between the actual annual yield of the actuarial value of



Appendix B: Main Benefit and Contribution Provisions

assets on a calendar year basis to a 6% yield is calculated. This difference is the adjustment applied the following July 1. The minimum adjustment is 3% and the maximum is 5%.

- (ii) The benefits for all others on the roll are adjusted on January 1, 2002 and on each subsequent July 1. The amount of each adjustment is 2.5%.

For those retiring in or after January 1, 2002, benefits are adjusted each July 1. The adjustment is 60% of the annual increase in the CPI up to 6%. The minimum annual COLA is 2.5%; the maximum is 6%.

CONTRIBUTIONS

By Members

For members not covered by Social Security: 5% of compensation.

For members covered by the Social Security: 2-1/4% of compensation up to the Social Security taxable wage base plus 5% of compensation, if any, in excess of such base.

By Municipalities

Participating Municipalities make annual contributions consisting of a normal cost contribution, a contribution for the amortization of the net unfunded accrued liability and a prior service amortization payment which covers the liabilities of the System not met by member contributions.