



Cavanaugh Macdonald
CONSULTING, LLC

The experience and dedication you deserve



GASB STATEMENT NO. 67 REPORT

FOR THE

CONNECTICUT JUDGES, FAMILY SUPPORT MAGISTRATES AND

COMPENSATION COMMISSIONERS RETIREMENT SYSTEM

PREPARED AS OF JUNE 30, 2017





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

November 15, 2017

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 Judges, Family Support Magistrates and Compensation Commissioners 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, 2017.

The annual actuarial valuation used as a basis for much of the information presented in this report was performed as of June 30, 2016. 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.

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144

Phone (678) 388-1700 • Fax (678) 388-1730

www.CavMacConsulting.com

Offices in Englewood, CO • Kennesaw, GA • Bellevue, NE



Members of the Commission

November 15, 2017

Page 2

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, appearing to read 'John J. Garrett'.

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

A handwritten signature in blue ink, appearing to read 'Edward J. Koebel'.

Edward Koebel EA, FCA, MAAA
Principal and Consulting Actuary



TABLE OF CONTENTS

<u>Section</u>	<u>Item</u>	<u>Page No.</u>
I	Introduction	1
II	Financial Statement Notes	3
III	Required Supplementary Information	7
 <u>Schedule</u>		
A	Required Supplementary Information Tables	9
B	Summary of Benefit Provisions Evaluated	12
C	Statement of Actuarial Assumptions and Methods	15



**REPORT OF THE ANNUAL GASB STATEMENT NO. 67
REQUIRED INFORMATION FOR THE
CONNECTICUT JUDGES, FAMILY SUPPORT MAGISTRATES AND
COMPENSATION COMMISSIONERS RETIREMENT SYSTEM
PREPARED AS OF JUNE 30, 2017**

SECTION I – INTRODUCTION

The Governmental Accounting Standards Board issued Statement No. 67 (GASB 67), “*Financial Reporting For Pension Plans*”, in June 2012. This report, prepared as of June 30, 2016 (the Measurement Date), presents information to assist the Connecticut Judges, Family Support Magistrates and Compensation Commissioners Retirement System (System) in meeting the requirements of GASB 67. Much of the material provided in this report is based on the data, assumptions and results of the annual actuarial valuation of the System as of June 30, 2016. The results of that valuation were detailed in a report dated January 19, 2017.

GASB 67 requires a measurement of the Total Pension Liability (TPL) utilizing the Entry Age Normal actuarial funding method. The Net Pension Liability (NPL) is then set equal to the TPL minus the System’s Fiduciary Net Position (FNP) (basically the market values of assets) as of the measurement date. The benefit provisions recognized in the calculation of the TPL are summarized in Schedule B.

Among the assumptions needed for the liability calculation is a Single Equivalent Interest Rate (SEIR). To determine the SEIR, the FNP 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 System on the Measurement Date. Future contributions were projected to be made in accordance with the laws governing the Retirement System. If the FNP is not projected to be depleted at any point in the future, as the results currently indicate, 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.

If, however, at a future measurement date 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 General Obligation 20-year Municipal Bond Index published monthly by the Board of Governors of the Federal Reserve System. We have determined as of the Measurement Date that use of a 6.90 percent discount rate meets the requirements of GASB 67. The sections that follow provide the results of all the necessary calculations, presented in the order laid out in GASB 67 for note disclosure and Required Supplementary Information (RSI).



SECTION II – FINANCIAL STATEMENT NOTES

The actuarial related information presented herein will follow the order presented in GASB 67. There are other non-actuarial items required which are not included in this report. Paragraph numbers are provided for ease of reference.

Paragraph 30(a) (4): The data required regarding the membership of the System were furnished by the Retirement Services Division staff. The following table summarizes the membership of the system as of June 30, 2016, the Valuation Date.

Membership

		Number
Retired Members Or Their Beneficiaries Currently Receiving Benefits	250	
Inactive Members Entitled To But Not Yet Receiving Benefits	3	
Active Members	204	
Total	457	

Paragraphs 31(a) (1)-(4): As stated above, the NPL is equal to the TPL minus the FNP. That result as of June 30, 2017 is presented in the table below (\$ thousands).

		Fiscal Year Ending June 30, 2017
Total Pension Liability (TPL)	\$ 447,925	
Fiduciary Net Position (FNP)	<u>210,125</u>	
Net Pension Liability (NPL)	\$ 237,800	
Ratio of Fiduciary Net Position to Total Pension Liability	46.91%	



Paragraph 31(b) (1)(a)-(f): This paragraph requires information regarding the actuarial assumptions used to measure the TPL. The actuarial assumptions utilized in developing the TPL are outlined in Schedule C. The total pension liability was determined by an actuarial valuation as of June 30, 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50 percent
Salary increases	4.50 percent, including inflation
Investment rate of return	6.90 percent, net of pension plan investment expense, including inflation

The RP-2014 White Collar Mortality Table projected to 2020 by scale BB at 100% for males and 95% for females is used for the period after service retirement and for dependent beneficiaries. The RP-2014 Disabled Retiree Mortality Table at 65% for males and 85% for females is used for the period after disability.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period July 1, 2011 – June 30, 2015.

The long-term expected rate of return on pension plan investments was determined using a log-normal distribution 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 best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:



Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Large Cap U.S. Equities	21.0%	5.8%
Developed Non-U.S. Equities	18.0	6.6
Emerging Markets (Non-U.S.)	9.0	8.3
Real Estate	7.0	5.1
Private Equity	11.0	7.6
Alternative Investment	8.0	4.1
Fixed Income (Core)	8.0	1.3
High Yield Bonds	5.0	3.9
Emerging Market Bond	4.0	3.7
Inflation Linked Bonds	5.0	1.0
Cash	4.0	0.4

Discount rate. The discount rate used to measure the total pension liability was 6.90 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that State contributions will be made at the actuarially determined rates in future years. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the 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): This paragraph requires disclosure of the sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the System, calculated using the discount rate of 6.90 percent, as well as what the System’s net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (5.90 percent) or 1-percentage-point higher (7.90 percent) than the current rate (\$ thousands):

	1% Decrease (5.90%)	Current Discount Rate (6.90%)	1% Increase (7.90%)
System’s net pension liability	\$ 269,283	\$ 237,800	\$ 183,144

Paragraph 31(c): June 30, 2016 is the actuarial valuation date upon which the TPL is based and includes changes to the actuarial assumptions from prior measures. In order to provide the



experience gain or loss, an expected TPL is determined as of June 30, 2017 using standard roll forward techniques and based on the prior assumptions. The roll forward calculation adds the annual normal cost (also called the service cost), subtracts the actual benefit payments and refunds for the plan year and then applies the expected investment rate of return for the year. The change to TPL as of June 30, 2017 due to experience and assumption change is shown in the following table:

Change in TPL due to Experience and Assumption Changes	
(\$ in thousands)	
Interest Rate	6.90%
(a) TPL as of June 30, 2016	\$433,603
(b) Entry Age Normal Cost for the Year July 1, 2016 – June 30, 2017	\$10,161
(c) Actual Benefit Payments for the Year July 1, 2016 – June 30, 2017	\$24,899
(d) Expected TPL as of June 30, 2017 = [(a) x 1.069] + (b) – [(c) x 1.0345]	\$447,925



SECTION III – REQUIRED SUPPLEMENTARY INFORMATION

There are several tables of Required Supplementary Information (RSI) that need to be included in the System’s financial statements:

Paragraphs 32(a)-(c): The required tables are provided in Schedule A.

Paragraph 34: In addition the following should be noted regarding the RSI:

Changes of benefit terms:

- 2014
 - A one-time decision was granted to members not eligible to retire by July 1, 2022 to elect to maintain the same normal retirement eligibility applicable to members eligible to retire before July 1, 2022. Employees who elected by July 1, 2013 to maintain the eligibility are required to make additional employee contributions for the length of their remaining active service with JFSMCCRS.

Changes of assumptions:

- 2016
 - The mortality tables and salary scale were changed based on the Experience Investigation for the five-year period ending June 30, 2015.
 - Economic assumptions (assumed rates of inflation and investment return), the actuarial cost method, and the UAAL amortization methodology were changed in accordance with Memorandum of Agreement (MOU) between the State and SEBAC effective December 8, 2016.



Method and assumptions used in calculations of actuarially determined contributions. The actuarially determined contributions in the schedule of employer contributions are calculated as of June 30 each biennium for the fiscal years ending two and three years after the valuation date (June 30, 2016 contributions are based on June 30, 2014 valuation). The following actuarial methods and assumptions were used to determine the most recent contributions reported in that schedule:

Actuarial cost method	Projected Unit Credit
Amortization method	Level percent of pay, closed
Single equivalent amortization period	17 years
Asset valuation method	5-year smoothed market
Inflation	2.75 percent
Salary increase	4.75 percent, including inflation
Investment rate of return	8.00 percent, net of investment related expense



SCHEDULE A

REQUIRED SUPPLEMENTARY INFORMATION

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

Fiscal Year Ending June 30	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total pension liability										
Service Cost	\$ 7,539	\$ 8,142	\$ 8,508	\$ 10,159						
Interest	26,301	27,240	28,251	29,062						
Benefit changes	0	0	0	0						
Difference between expected and actual experience	0	0	(9,380)	0						
Changes of assumptions	0	0	64,604	0						
Benefit payments	(21,668)	(22,541)	(22,994)	(24,899)						
Refunds of contributions	0	0	0	0						
Net change in total pension liability	12,172	12,841	68,989	14,322						
Total pension liability - beginning	339,601	351,773	364,614	433,603						
Total pension liability - ending (a)	\$ 351,773	\$ 364,614	\$ 433,603	\$ 447,925						
Plan net position										
Contributions - employer	\$ 16,298	\$ 17,731	\$ 18,259	\$ 19,164						
Contributions - member	1,641	1,791	1,831	1,689						
Net investment income	23,156	4,781	1,440	24,452						
Benefit payments	(21,668)	(22,541)	22,994	(24,899)						
Administrative expense	0	0	0	0						
Refunds of contributions	0	0	0	0						
Other	0	0	1680*	(39)						
Net change in plan net position	19,427	1,762	216	20,367						
Plan net position - beginning	168,353	187,780	189,542	189,758						
Plan net position - ending (b)	\$ 187,780	\$ 189,542	\$ 189,758	\$ 210,125						
Net pension liability - ending (a) - (b)	\$ 163,993	\$ 175,072	\$ 243,845	\$ 237,800						

* Includes \$1,614,000 audit adjustment to the beginning of year plan net position.

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



Fiscal Year Ending June 30	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total pension liability	\$ 351,773	\$ 364,614	\$ 433,603	\$ 447,925						
Plan net position	187,780	189,542	189,758	210,125						
Net pension liability	\$ 163,993	\$ 175,072	\$ 243,845	\$ 237,800						
Ratio of plan net position to total pension liability	53.38%	51.98%	43.76%	46.91%						
Covered payroll*	\$ 33,386	\$ 34,972	\$ 34,897	\$ 36,467						
Net pension liability as a percentage of covered payroll	491.20%	500.61%	698.76%	652.10%						

* Covered payroll equals the total active annual compensation from each year's valuation report.



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

Fiscal Year Ending June 30	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Actuarially determined employer contribution	\$ 19,164	\$ 18,259	\$ 17,731	\$ 16,298	\$ 16,006	\$ 15,095	\$ 16,208	\$ 15,399		
Actual employer contributions	<u>19,164</u>	<u>18,259</u>	<u>17,731</u>	<u>16,298</u>	<u>16,006</u>	<u>15,095</u>	<u>0</u>	<u>0</u>		
Annual contribution deficiency (excess)	<u>\$ -</u>	<u>\$ 16,208</u>	<u>\$ 15,399</u>							
Covered payroll*	\$ 36,467	\$ 34,897	\$ 34,972	\$ 33,386	\$ 31,748	\$ 30,308	\$ 33,102	\$ 31,602		
Actual contributions as a percentage of covered payroll	52.55%	52.32%	50.70%	48.82%	50.42%	49.81%	0.00%	0.00%		

* Covered payroll equals the total active annual compensation from each year's valuation report.



SCHEDULE B

SUMMARY OF BENEFIT PROVISIONS EVALUATED

The Connecticut Judges, Family Support Magistrates, and Compensation Commissioners Retirement System (CT JFSMCCRS) is a defined benefit pension plan established by the Connecticut General Assembly for the purpose of providing retirement allowances and other benefits for Judges, Family Support Magistrates, and Compensation Commissioners in Connecticut, and their survivors and other beneficiaries.

Eligibility Requirements

Any appointed Judge, Family Support Magistrate, or Compensation Commissioner of the State of Connecticut.

Final Average Compensation

For members hired prior to July 1, 2011, salary of office;
For members hired on or after July 1, 2011, Average annual salary for 5 years preceding retirement;

plus longevity payments based on service as follows:

Completed Years of Service	Annual Longevity as % of Compensation
0-9	0.0%
10-14	1.5%
15-19	3.0%
20-24	4.5%
25 or more	6.0%

Normal Retirement Benefit

Eligibility

For those who retire before July 1, 2022, the earliest of age 65 or 20 years of service or 30 years of total state service with at least 10 years as a Judge, Family Support Magistrate or Compensation Commissioner.

For those who retire on or after July 1, 2022, the earliest of age 65 with 10 years of vesting service, age 63 with 25 years of vesting service, or 30 years of vesting service.

Retirement is mandatory at age 70.



Benefit 66.67% of Final Average Compensation reduced for less than 10 years of service by a ratio of the number of years of completed service to the number of years of service which would have been completed at age 70, or 10 years, whichever is less.

Disability Retirement Benefit

Any member becoming permanently disabled is entitled to 66.67% of Final Average Compensation commencing upon determination of disability.

Death Benefit

The spouse of any member who was hired before January 1, 1981 and dies in active service or after retirement is entitled to 33.33% of the final compensation of the member at time of death commencing the first of the month after death.

The spouse of any member who was hired on or after January 1, 1981 and dies in active service is entitled to 33.33% of the final compensation of the member at time of death commencing the first of the month after death.

The spouse of any member who was hired on or after January 1, 1981 and who dies after retirement is entitled to 50% of the monthly benefit of the member at the time of death.

The spouse of any member who dies after leaving active service and before retirement is entitled to 50% of the benefit the member would have received upon retirement commencing when the member would have been eligible.

Deferred Vested Retirement Benefit

Eligibility 10 years of service.

Benefit Members hired before 1981 who resign on or before October 1, 2011 – 50% of the retirement benefit at 10 years increasing to 100% after 15 years.

Members hired before 1981 who resign on or after October 2, 2011 – 100% of the retirement benefit multiplied by the ratio of service at termination to



projected service at the earliest retirement age (the earlier of age 65 or 20 years of service).

Members hired on or after January 1, 1981 – 100% of the retirement benefit multiplied by the ratio of service at termination to projected service at the earliest retirement age (the earlier of age 65 or 20 years of service).

Commencement

For members who resign on or before October 1, 2011 - Benefits shall commence upon the attainment of the earlier of age 65 or the attainment of 20 years of service (assuming the member had remained in service).

For members hired before 1981 who resign on or after October 2, 2011 – Benefits shall commence no earlier than at age 62.

For members hired on or after January 1, 1981 who resign on or after October 2, 2011 – Benefits shall commence no earlier than at age 65.

Cost of Living Adjustments

For members hired prior to 1981 and retire prior to October 2, 2011, benefits are increased in line with current compensation of an active member in the same position.

For members hired on or after January 1, 1981 and retire prior to October 2, 2011, benefits are increased in line with a cost of living index, not to exceed 3% per year.

For members retiring on or after October 2, 2011 and all surviving spouses, the annual adjustment will be 60% of the increase in CPI up to 6% and 75% of the increase in the CPI over 6%. The minimum COLA shall be 2.0% and the maximum COLA shall be 7.5%.

Member Contributions

Members contribute 5% of annual compensation. Upon withdrawal prior to benefit eligibility, contributions are refunded without interest.



SCHEDULE C

STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

Adopted or reaffirmed by the Commission for the June 30, 2016 and later valuations.

VALUATION INTEREST RATE: 6.90% per annum, compounded annually, net of expenses.

SALARY INCREASES: 4.50% at all ages.

COST OF LIVING ADJUSTMENTS:

Group	Rate
Hired prior to January 1, 1981 and retired prior to October 2, 2011	4.50%
Hired on or after January 1, 1981 and retired prior to October 2, 2011	2.60%
Retired on or after October 2, 2011	2.30%
All surviving spouses of active or retired members	2.30%

PAYROLL GROWTH ASSUMPTION: 4.50% per annum.

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

WITHDRAWAL: None.

DISABILITY: 30% of 1975 Social Security Table

RETIREMENT: 50% are assumed to retire at later of age 65 and 10 years of service. The remaining actives are assumed to retire at age 70.



DEATHS AFTER RETIREMENT: The RP-2014 White Collar Mortality Table projected with Scale BB to 2020 at 100% for males and 95% 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	.043%	.031%	65	0.705%	0.579%
45	.067	.052	70	1.133	0.933
50	.272	.194	75	1.943	1.553
55	.384	.250	80	3.407	2.688
60	.501	.348	85	6.247	4.826

In our opinion, the projection of the mortality rates with Scale BB continues to provide a sufficient margin in the assumed rates of mortality to allow for additional improvement in mortality experience.

The RP-2014 Disability Retiree Mortality Table at 65% (males) and 85% (female) is used for the period after disability.

ASSET METHOD: Market Value of Assets.

VALUATION METHOD: Entry Age Normal cost 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.