CalPERS

Judges' Retirement System Actuarial Valuation as of June 30, 2015

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Actuarial Certification

Actuarial Certification

To the best of our knowledge, this report is complete and accurate and contains sufficient information to fully and fairly disclose the actuarial funded condition of the Judges' Retirement System. This valuation is based on the member and financial data as of June 30, 2015 provided by the various CalPERS databases and the benefits under this plan with CalPERS as of the date this report was produced. It is our opinion that the valuation has been performed in accordance with generally accepted actuarial principles, in accordance with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for this plan, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

The undersigned are actuaries for CalPERS, who are members of the American Academy of Actuaries and the Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

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Chief Actuary, CalPERS

Highlights and Executive Summary

Contents

This section contains the following topics:

Introduction

This is the actuarial valuation report as of June 30, 2015 for the Judges' Retirement System. This actuarial valuation is used to recommend the 2015-16 employer contributions. The Judges' Retirement System provides retirement and ancillary benefits to judges elected or appointed prior to November 9, 1994. The employer and member contribution rates for the System are set by State statute and are each equal to eight percent (8%) of payroll. The State currently funds the System using a pay-as-you-go approach since the eight percent (8%) of payroll contributions made by both the State and members **are not adequate to meet the System's current benefit payouts.**

Purpose of the Report

This actuarial valuation of the Judges' Retirement System of the State of California was performed by CalPERS staff actuaries as of June 30, 2015 in order to:

- Set forth the funded status, the actuarial assets, and accrued liabilities of the System as of June 30, 2015;
- Provide expected benefit payouts and funding alternatives; and to
- Provide actuarial information as of June 30, 2015, to the CalPERS Board of Administration and other interested parties.

The use of this report for other purposes may be inappropriate.

California Actuarial Advisory Panel Recommend-ations

This report includes all the basic disclosure elements as described in the *Model Disclosure Elements for Actuarial Valuation Reports* recommended in 2011 by the California Actuarial Advisory Panel (CAAP) that would be applicable to a pay-as-you-go plan.

Employer Contribution

The State contributes to the plan on a pay-as-you-go basis. In other words, member contributions plus employer contributions are designed to cover only benefit payments and expenses each year, with nothing left over for pre-funding. A pay-as-you-go approach is easy to understand. However, from an accounting viewpoint, pensions in the aggregate are considered a form of deferred wages and should generally be charged over the period of employment. Also, from the member's point of view, it is generally not satisfactory that his/her future benefit payments are dependent upon the continued willingness and ability of the employer to cover the benefit payments each year.

A comparison of the pay-as-you-go costs for the prior and current valuation is shown below.

	FY 2015-16	FY 2016-17
Estimated Employer Pay-as-You-Go Cost (PAYG)	$ 225,157,030	$ 227,341,695

The average remaining service for current actives is only about 1.6 years. Some believe that pensions should be funded over a period similar to the remaining service life. CalPERS recognizes that making contributions equal to the entire Unfunded Actuarial Liability (UAL) within 2 years is not realistic at this time. However, the lack of any accumulation of assets is a serious concern. Advance funding of the System's benefits enables the pension assets to grow with investment earnings and would reduce future contribution requirements needed on a pay-as-you-go basis. It is recommended that the State consider some form of advanced funding.

In the following table, we have shown three possible funding amounts, equal to the Normal Cost plus a 15-year, a 10-year and a 5-year level dollar amortization of the UAL, in addition to the PAYG amount. We would recommend at least a 10-year amortization, since most, if not all, active members would be expected to retire within that time and the duration of benefit payments is 10.5. We have also shown the expected total amount of payments expected to be made over the life of the plan under each scenario. This demonstrates the amount of earnings that can be realized when assets are invested.

	Pay-as-you-go	Funding, 15-year amortization	Funding, 10-year amortization	Funding, 5-year amortization
Normal Cost		$ 21,605,844	$ 21,605,844	$ 21,605,844
Amortization of UAL		313,081,614	427,030,533	773,830,152
Total		$ 334,687,458	$ 448,636,377	$ 795,435,995
PAYG	$ 227,341,695			
Expected Total Payout over Life of the Plan	$5,629,691,656	$4,745,214,619	$4,319,295,737	$3,918,141,161

Employer Contribution (continued)

CalPERS will be happy to work with the Administration in establishing an acceptable advance-funding basis that satisfies both the recommendation for advanced funding and current fiscal limitations.

Plan's Funded Status

The tables below summarize the funded status of the Judges' Retirement System as of June 30.

		June 30, 2014		June 30, 2015
1. Present Value of Projected Benefits	$	3,467,143,251	$	3,365,609,774
2. Entry Age Normal Accrued Liability		3,414,779,730		3,322,609,989
3. Value of Assets (MVA)		57,198,659		41,177,519
4. Unfunded Liability [(2) – (3)]	$	3,357,581,071	$	3,281,432,470
5. Funded Ratio [(3) / (2)]		1.7%		1.2%

Changes Since Prior Valuation

Actuarial Assumptions — There were no changes to the actuarial assumptions since the prior valuation. A complete description of the actuarial assumptions used in the valuation may be found in Appendix A of this report.

Actuarial Methods – There were no changes in the actuarial funding methods since the prior valuation. A complete description of the actuarial methods used in the valuation may be found in Appendix A of this report.

Plan Provisions – There were no plan changes since the prior valuation. A description of the principal plan provisions may be found in Appendix B of this report.

Subsequent Events

Actuarial Assumptions – As was the case in prior years, actual experience has resulted in a significantly lower number of retirements as compared to the actuarial assumptions. It also appears that there are fewer deaths than expected. We believe that these differences exist because a select group remains in the plan. As a further explanation, an average population that would match our normal actuarial assumptions would consist of those with worse than expected experience and those with better than expected experience. However, because this plan has been closed for over 20 years, those with bad experience are no longer in the plan and the remaining population consists of those with better than average experience. The differences in the two factors (retirement and mortality) are largely offsetting in terms of actuarial gains and losses, but we want to align all assumptions to obtain the most accurate results possible. Therefore, we will conduct an experience analysis on this plan during the upcoming year and expect to employ different assumptions in future valuations. The change to assumptions will have no impact on actual plan costs as long as the State contributes on a pay-as-you-go basis.

Subsequent Events (continued)

Plan Data – In the case of Robert M. Mallano, et al. v. John Chiang, Controller of the State of California (SCO), the Judges' Retirement System (JRS), and the Judges' Retirement System II (JRS II), the judge issued a Statement of Decision, which orders judicial salary increases to be given to the judges for the fiscal years 2008-09, 2009-10, 2010-11 and 2013-14 plus 10% interest per annum for each year that the judicial salaries were not increased within those fiscal years. The increases and amounts owed have not been calculated yet. We anticipate the impact of this lawsuit to be reflected in the June 30, 2016 valuation.

Assets

Contents

This section contains the following topics:

Reconciliation of the Market Value of Assets

The following displays the change in the market value of assets from the prior valuation date to June 30, 2015.

			Market Value
1.	Beginning Balance as of 6/30/2014	$	57,198,659
2.	Prior Year Adjustments		0
3.	Contributions		9,594,707
4.	Other Income		2,198,182
5.	Transfer from General Fund		175,193,000
6.	Investment Earnings Credited		89,935
7.	Less Other Investment Expenses		(2,398)
8.	Contribution Refund		(133,573)
9.	Administrative Costs		(1,227,050)
10.	Benefit Payments		(201,733,943)
11.	Ending Balance as of 6/30/2015*	$	41,177,519

* OPEB expenses of $96,156 are also paid from this fund.

**As of June 30, 2015, assets of the fund are invested in short-term domestic securities, with the cost and market values of the fund the same value.

Asset Allocation

Shown below is the market value of assets, by asset type, as of the valuation date.

Cash	$	822
Investments at Market Value		
Investments Short Term Domestic Securities	$	39,734,468
Accounts Receivable		
Member, Agency, State, School, Other		2,188,197
Due from PERF		229,968
Accrued Interest Receivable		15,046
Subtotal of Accounts Receivable	$	2,433,211
Accounts Payable		
Retirement Benefits in Process of Payment		0
Due to General Fund		(23,519)
Due to Other Funds		(107,411)
Other Program Liabilities		(860,052)
Subtotal of Accounts Receivable	$	(990,982)
Fund Balance at Market Value on 6/30/2015	$	41,177,519

Liabilities and Rates

Contents This section contains the following topics:

Comparison of Current and Prior Year Results

		June 30, 2014	June 30, 2015
1.	**Members Included in the Valuation**		
a.	Active Members	279	231
b.	Deferred Vested Terminated Members & QDRO's	25	15
c.	Receiving Payments	1,912	1,924
d.	**Total**	2,216	2,170
2.	**Payroll**		
a.	Covered Annual Payroll	$52,335,325	$44,284,467
b.	Projected Covered Annual Payroll	$41,377,787	$34,339,836
c.	Average Covered Annual Payroll [(2) /(1a)]	$187,582	$191,708
3.	**Age and Service for Actives**		
a.	Average Attained Age for Actives	67.09	68.23
b.	Average Service for Actives	26.04	27.27
c.	Average Future Service for Actives	1.69	1.64
4.	**Present Value of Benefits at Valuation Date**		
a.	Active Members	$733,053,390	$603,829,127
b.	Deferred Vested Terminated Members & QDRO's	$37,404,993	$36,872,177
c.	Receiving Benefits	$2,696,684,868	$2,724,908,470
d.	**Total**	$3,467,143,251	$3,365,609,774
5.	**Present Value of Future Normal Costs at Valuation Date**		
a.	Member Contributions	$7,031,302	$5,782,276
b.	Employer Normal Costs *(6/30/14 value corrected*)*	$45,332,219	$37,217,509
6.	**Unfunded Accrued Actuarial Liability**		
a.	Accrued Actuarial Liability		
	i. Active Members	$680,689,869	$560,829,342
	ii. Deferred Vested Terminated Members & QDRO's	$37,404,993	$36,872,177
	iii. Receiving Benefits	$2,696,684,868	$2,724,908,470
	iv. **Total**	$3,414,779,730	$3,322,609,989
b.	**Assets (Market Value)**	$57,198,659	$41,177,519
c.	**Unfunded Accrued Actuarial Liability [(6 a iv) - (6 b)]**	$3,357,581,071	$3,281,432,470
d.	**Funded Ratio [(6 b) / (6 a iv)]**	1.7%	1.2%
7.	**Normal Cost**	$25,067,760	$20,725,030

* Correction of transcription error. This did not affect any other results

Comparison of Current and Prior Year Results Continued

			FY 15/16	FY 15/16
8.	**Employer Contributions**			
	a.	Recommended 10-Year Funding		
	i.	Normal Cost [(7)*1.0425]	$26,133,140	$21,605,844
	ii.	Payment on Unfunded Liability	436,940,162	427,030,533
	iii.	**Total [(8 a i) + (8 a ii)]**	$463,073,302	$448,636,377
	b.	**Estimated Pay-as-You-Go Costs (PAYG)**		
	i.	Estimated Benefit Payments	$226,977,086	$228,795,191
	ii.	Estimated Employee Contributions	1,820,056	1,453,496
	iii.	Estimated Employer Contributions [(10 b i) - (10 b ii)]	$225,157,030	$227,341,695

Gain/Loss Analysis

Shown below is an analysis of the (Gain)/Loss for the fiscal year ending on the valuation date. The Gain or loss is shown separately for assets, contributions, and liabilities

A.	**Total (Gain)/Loss for the Year**		
1.	Unfunded Accrued Liability (UAL) as of 6/30/14	$	3,357,581,071
2.	Expected Normal Cost during 2014/2015		25,067,760
3.	Contributions during 2014/2015		(186,985,889)
4.	Interest through 6/30/15		139,830,469
5.	Expected UAL before all other changes[A1+A2+A3+A4]	$	3,335,493,411
6.	Change due to revised actuarial methods		0
7.	Change due to new actuarial assumptions		0
8.	Expected UAL after all changes [A5 + A6 + A7]		3,335,493,411
9.	Actual Unfunded Accrued Liability as of 6/30/15		3,281,432,470
10.	Total (Gain)/Loss for 2014/2015 [A9 – A8]	$	(54,060,941)
B.	**Contribution (Gain)/Loss for the Year**		
1.	Expected Contribution (Employer and Employee)	$	226,977,086
2.	Interest on Expected Contributions [$(1.0425^{1/2} – 1)$ x B1]		4,773,077
3.	Actual Contribution		186,985,889
4.	Interest on Actual Contributions [$((1.0425)^{1/2} – 1)$ x B3]		3,932,106
5.	Contribution (Gain)/Loss [(B1 + B2) – (B3 + B4)]	$	40,832,168
C.	**Asset (Gain)/Loss for the Year**		
1.	Value of Assets as of 6/30/14	$	57,198,659
2.	Contributions Received		186,985,889
3.	Benefits, Refunds Paid and Administrative Costs		(202,960,993)
4.	Expected Interest [0.0425 x C1 + $((1.0425)^{½} - 1)$ x (C2 + C3)]		2,095,004
5.	Expected Assets as of 6/30/14 [C1 + C2 + C3 + C4]	$	43,318,559
6.	Actual Market Value of Assets as of 6/30/15		41,177,519
7.	Asset (Gain)/Loss [C5 - C6]	$	2,141,040
D.	**Liability (Gain)/Loss for the Year**		
1.	Total (Gain)/Loss (A10)	$	(54,060,941)
2.	Contribution (Gain)/Loss (B5)		40,832,168
3.	Asset (Gain)/Loss (C7)		2,141,040
4.	Liability (Gain)/Loss [D1 - D2 - D3]	$	(97,034,150)

<u>Note</u>: Since the contributions are on a pay-as-you-go basis, the contribution loss, shown in B. above, reflects the facts that there were fewer retirements than expected and a 1.8% pay and COLA increase were given. These facts are also reflected in the liability gain. The contribution loss does not imply that benefits for the year were not paid.

Funding History

The Funding History below shows the recent history of the actuarial accrued liability, the market value of assets, funded ratio, the annual covered payroll and the Pay-As-You-Go Cost (PAYG).

Valuation Date	Accrued Liability	Assets	Unfunded Accrued Liability	Funded Ratio	Payroll	PAYG
6/30/09	$3,582,992,463	$41,390,491	$3,541,601,972	1.2%	$96,648,907	$206,226,920
6/30/10	$3,429,380,904	$63,828,344	$3,365,552,560	1.9%	$85,947,377	$210,566,972
6/30/11	$3,296,537,803	$54,383,026	$3,242,154,777	1.6%	$75,919,674	$212,005,561
6/30/12	$3,172,276,086	$72,693,177	$3,099,582,909	2.3%	$69,227,033	$213,556,754
6/30/13	$3,383,309,964	$53,819,947	$3,329,490,017	1.6%	$60,593,543	$217,464,586
6/30/14	$3,414,779,730	$57,198,659	$3,357,581,071	1.7%	$52,335,325	$225,157,030
6/30/15	$3,322,609,989	$41,177,519	$3,281,432,470	1.2%	$44,284,467	$227,341,695

Projections of Contributions & Payouts

Contents

This section contains the following topics:

10-Year Projection of Contributions and Benefits

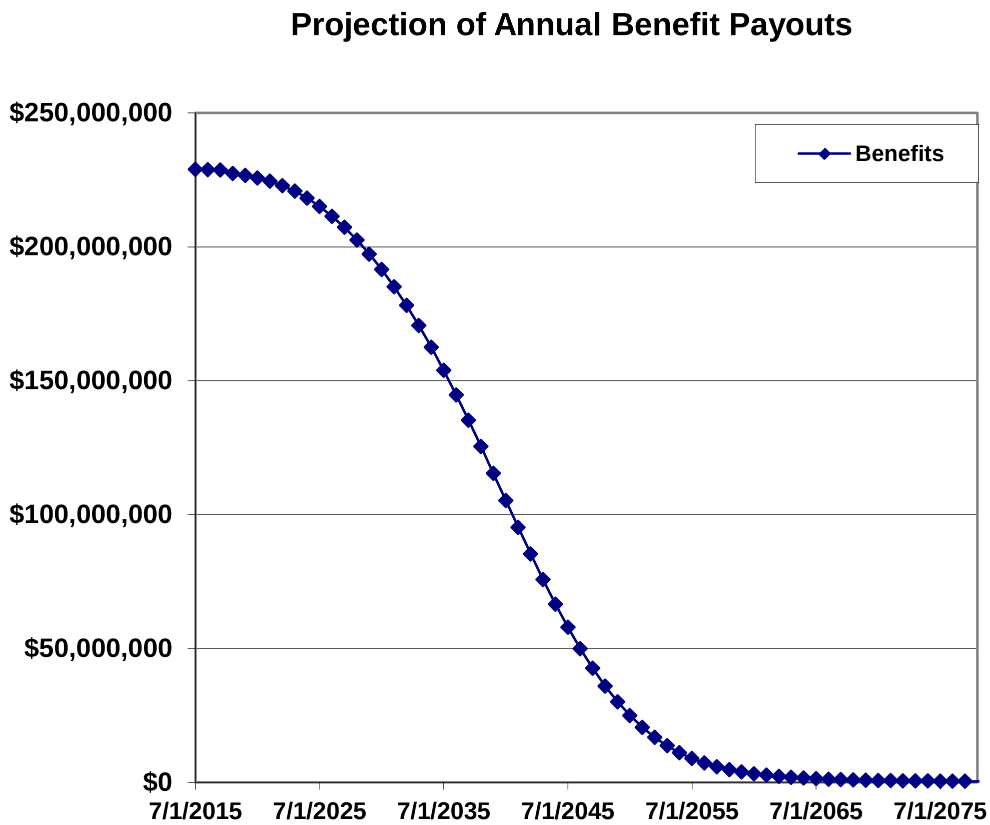
Shown below is a 10-year projection of expected State and member statutory contributions and expected benefit payouts.

Fiscal Years Beginning July 1	State Statutory Contributions *	Member Statutory Contributions *	Future Benefit Payouts
2016	1,453,496	1,453,496	228,795,191
2017	816,101	816,101	228,642,380
2018	478,890	478,890	227,403,633
2019	297,486	297,486	226,591,501
2020	183,565	183,565	225,740,988
2021	110,073	110,073	224,530,794
2022	67,202	67,202	222,863,348
2023	38,954	38,954	220,787,457
2024	19,077	19,077	218,174,682
2025	9,055	9,055	215,024,352

* **Statutory state contributions and statutory member contributions both equal eight percent (8%) of pay.**

Graph of Projected Benefit Payouts

The graph below shows a projection of future annual benefit payouts from the System. Total benefit payments from the System are projected to decline from a peak of $229 million during the current 2015-16 Fiscal Year.



Appendices

Contents This section contains the following topics:

Appendix A –
Actuarial Methods and Assumptions

Actuarial Data

As stated in the Actuarial Certification, the data, which serves as the basis of this valuation, has been obtained from the various CalPERS databases. We have reviewed the valuation data and believe that it is reasonable and appropriate in aggregate.

Actuarial Funding Method

The method used to determine the optional funding schedules was the Entry Age Normal actuarial cost method.

Under this funding method the actuarial present value of projected pension, termination, death and disability benefits for members and beneficiaries are determined as of the valuation date using the actuarial assumptions set forth below.

The cost allocated to the current fiscal year is called the normal cost.
The actuarial accrued liability for active members is then calculated as the portion of the total cost of the plan allocated to prior years. The actuarial accrued liability for members currently receiving benefits, for active members beyond the assumed retirement age, and for members entitled to deferred benefits, is equal to the present value of the benefits expected to be paid. No normal costs are applicable for these participants. The excess of the total actuarial accrued liability over the value of plan assets is called the unfunded actuarial accrued liability. Funding requirements are determined by adding the normal cost and an amortization of the unfunded liability over the average remaining service for current active members.

Amortization Period

No formal amortization of the unfunded liability is currently in use, since contributions are being made on a pay-as-you-go basis. However, we have included a recommended contribution using an amortization period of 10 years.

Asset Valuation Method

The value of assets equals the market value of the fund plus accrued interest.

Actuarial Assumptions

The actuarial assumptions used in the June 30, 2015 actuarial valuation are shown below.

The demographic assumptions used in the valuation, with the exception of the mortality assumption, have been in place for many years. As discussed under Subsequent Events on page 6 of this report, we believe some of the assumptions are no longer appropriate for this group. An experience analysis will be performed in the upcoming year and we expect some of the assumptions will change. The assumptions do not affect pay-as-you-go contributions.

The current inflation assumption is based on a study performed by GRS in February 2012 and adopted by the CalPERS Board of Administration in March of 2012. The discount rate matches the rate used for Pay-as-you-go plans in the OPEB valuation. The actuary has concluded that the discount rate is also reasonable for this pay-as-you-go pension plan.

Economic Assumptions

Investment Return: 4.25% per annum, compounded annually.

Salary Increases: 3.00% per annum compounded annually.

Inflation: 2.75% per annum compounded annually.

Cost-of-Living Adjustment: Benefits are fully adjusted for increases in wages for the active judges of the same court from which the member retired. Therefore, we assume that benefits will increase by 3% per annum compounded annually.

ESIP Interest Crediting Rate: Based on the rate for 30-year U.S. Treasuries, or their equivalent, for the month of June of the valuation year. This rate for June 2015 equals 3.11% (a change from 3.42% as of June 2014).

Administrative Expense: The administrative expense for the year is set equal to the amount of administrative expenses paid from the System's fund during the fiscal year ending on the valuation date.

Demographic Assumptions

The following decrements apply to all members.

Probability of Termination and Disability

Age	Non-vested Withdrawal	Disability	Vested Termination
40	0.012	0.0008	0.0030
45	0.010	0.0014	0.0043
50	0.012	0.0024	0.0085
55	0.015	0.0041	0.0150
60	0.000	0.0064	0.0180
65	0.000	0.0092	0.0250
70	0.000	0.0000	0.0000

Probability of Service Retirement

Age	Rate	Age	Rate
60	.30	66	.40
61	.60	67	.40
62	.70	68	.45
63	.60	69	.50
64	.60	70	.75
65	.50	71-79	.50
		80	1.00

Mortality: The mortality assumptions are based on mortality rates resulting from the most recent CalPERS Experience Study adopted by the CalPERS Board. For purposes of the mortality rates, the revised rates include 20 years of projected on-going mortality improvement using Scale BB published by the Society of Actuaries.

Pre-Retirement Mortality

Rates vary by age as shown in the table below.

Attained Age	Pre-Retirement Mortality	
	Male	Female
35	0.00057	0.00035
40	0.00075	0.00050
45	0.00106	0.00071
50	0.00155	0.00100
55	0.00228	0.00138
60	0.00308	0.00182
65	0.00400	0.00257
70	0.00524	0.00367

Demographic Assumptions (continued)

Post-Retirement Mortality

Sample rates are shown in the following table.

Attained Age	Standard		Disability	
	Male	**Female**	**Male**	**Female**
35	0.00060	0.00046	0.00788	0.00492
40	0.00110	0.00091	0.00949	0.00605
45	0.00227	0.00200	0.01221	0.00804
50	0.00501	0.00466	0.01680	0.01158
55	0.00599	0.00416	0.01973	0.01149
60	0.00710	0.00436	0.02289	0.01235
65	0.00829	0.00588	0.02451	0.01607
70	0.01305	0.00993	0.02875	0.02211
75	0.02205	0.01722	0.03990	0.03037
80	0.03899	0.02902	0.06083	0.04725
85	0.06969	0.05243	0.09731	0.07762
90	0.12974	0.09887	0.14804	0.12890
95	0.22444	0.18489	0.22444	0.21746
100	0.32536	0.30017	0.32536	0.30017
105	0.58527	0.56093	0.58527	0.56093
110	1.00000	1.00000	1.00000	1.00000

Marital Status: 90% of non-retired members are assumed to be married.

Age of Spouse: Female spouses are assumed to be four years younger than male spouses are. For retired members receiving some form of joint and survivor annuity, the spouse's actual date of birth was used in the valuation if such information was furnished. Otherwise, wives were assumed to be four years younger than their husbands.

Form of Payment: For retired members for whom no optional form of payment was elected, the assumed form of payment was 1) 50% joint and survivor if beneficiary information was provided or 2) a life annuity if no beneficiary information was provided.

Appendix B – Principal Plan Provisions

Eligibility of Membership

All Supreme Court, District Court of Appeal, Superior Court, and Municipal Court Judges and Justices were immediately eligible for membership, if elected or appointed before November 9, 1994.

Member Contributions

8% of pay. Withdrawal of contributions results in forfeiture of all other benefits.

Service Retirement

Eligibility – A member who has met the age and service qualifications in one of the following subdivisions shall be eligible for Service Retirement upon specifying the date upon which his or her retirement is to be effective.

Age at Retirement	Service Qualifications	Pre-Retirement Time Limit for Accrual of Service
70 or older	20 years	*
70 or older	10 years	15 years
69	12 years	16 years
68	14 years	18 years
67	16 years	20 years
66	18 years	22 years
65	20 years	24 years
60	20 years	No Limit

* At least 5 years of service must immediately precede retirement.

Benefit - Members retiring after age 60 with at least 20 years of service receive 75% of pay of the last judicial office held. With less than 20 years of service, the benefit percentage is 65%.

Form of Payment - 50% of the retirement allowance will automatically be continued to the spouse upon the death of the retiree, without a reduction in the retiree's allowance. For post-January 1, 1980 judges, there is a one-year marriage requirement at benefit commencement. The remaining 50%, often referred to as the option portion, is paid to the retiree as an annuity for as long as he or she is alive. The retiree may choose to provide for some, or all, of the option portion to be paid to any designated beneficiary after the retiree's death, paid for by a reduction to the option portion of the allowance.

Termination Benefit

Eligibility - Completion of 5 years of service.

Benefit - 3.75% of pay of last judicial office held multiplied by years of service to a maximum of 20 years. Benefit percentage is reduced by 0.25% for each year of service less than 12 years. Benefit begins at the earliest age that member would have been eligible for service retirement had he remained in service; and, the member is at least age 63, or age 60 with 20 years of service.

Minimum benefit for pre-January 1, 1974 judges - 5% of pay of last judicial office held multiplied by years of service, to a maximum of 8 years. Benefit is payable at age 65.

Form of Payment - 50% contingent annuity with spouse as contingent annuitant. Minimum benefit is paid as life annuity only.

Disability Retirement

Eligibility - 4 years of service (no service requirement is necessary for a work-related disability), 2 years of service for pre-January 1, 1989 judges. No service requirement for pre-January 1, 1980 judges.

Benefit - With 20 years of service, 75% of pay of last judicial office held, payable immediately. With less than 20 years of service, the benefit is 65% of pay.

Pre-retirement Death Benefits

Spouse's Benefit - 25% of pay of last judicial office held, payable for spouse's lifetime if not eligible for retirement. If a member dies after being eligible to retire, the surviving spouse will receive a monthly allowance equal to 50% of the monthly allowance the member would have received, had he/she retired, for life.

Contributory Benefit - After 10 years of service, spouse or minor child receives 1.625% of pay of last judicial office held multiplied by years of service, to a maximum of 20 years. Spouse's benefit is payable for life. Child's benefit ceases at age 18, or at age 22 if a full-time student. Requires $2 monthly contribution.

Benefit with No Spouse or Children - Refund of accumulated member contributions plus one month's pay multiplied by years of service, to a maximum of 6 years.

Post-Retirement Adjustments

The retirement allowances of retired judges, beneficiaries and individuals receiving benefits under domestic relation orders will increase proportionately according to increases in judicial salary increases for the judicial office last held by the member.

Extended Service Incentive Program (ESIP)

* **Eligibility** – An active member shall automatically participate in the program if he/she has 20 or more years of creditable service and has attained the age of 60 or more on or after January 1, 2001.

* **Vesting** – 36 months of creditable service after the later of January 1, 2001 or the date the judge first becomes eligible to participate in the program. However, the 36 months of creditable service requirement is waived in the event of the member's death, disability, or because he/she was unsuccessful in his/her efforts to be reelected or retained in office.

* **Benefit** – For the first 60 months of participation in the program, 20% of the judge's monthly salaries and 8% of the judge's monthly salaries for the 61^{st} to the 120^{th} months of participation plus interest based on 30-year U.S. Treasury Bonds shall be credited to the judge. The benefit shall be paid in the form of a single, lump sum payment.

Appendix C – Participant Data

Summary of Valuation Data The table below illustrates counts of records processed by the valuation.

	June 30, 2014	June 30, 2015
1. **Active Members**		
a) Counts	279	231
b) Average Attained Age	67.09	68.23
c) Average Entry Age to Rate Plan	41.05	40.96
d) Average Years of Service	26.04	27.27
e) Average Annual Covered Pay	187,582	191,708
f) Annual Covered Payroll	52,335,325	44,284,467
g) Projected Annual Payroll	41,377,787	34,339,836
h) Present Value of Future Payroll	87,891,503	72,278,361
2. **Vested Terminated Members and QDRO's**		
a) Counts	25	15
3. **Receiving Payments**		
a) Counts	1,912	1,924
b) Average Attained Age	76.75	77.06
c) Average Annual Benefits	99,341	101,269
4. **Active to Retired Ratio** [(1a) / (3a)]	0.15	0.12

Reconciliation of Participants

The table below provides a reconciliation of the member data over the course of the valuation year.

	Active Judges	Vested Terminated Judges	Disabled Judges	Retired Judges	Benefi-ciaries	QDRO* Receiving Benefits	QDRO* Not Receiving Benefits	Total Participants
June 30, 2014	279	19	43	1,234	518	117	6	2,216
1. New Entrants	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
2. Rehires	0	0	0	0	N/A	N/A	N/A	0
3. Disability Retirements	0	N/A	0	N/A	N/A	N/A	N/A	0
4. Service Retirements	(43)	(10)	N/A	53	N/A	0	0	0
5. Vested Terminations	(2)	2	N/A	N/A	N/A	N/A	N/A	0
6. Termination with Refund	0	0	0	0	0	0	0	0
7. Died, With Beneficiaries' Benefit Payable	(2)	0	0	(23)	26	0	N/A	1
8. Divorce Settlements	0	0	0	0	0	8	(2)	6
9. Died, Without Beneficiary; and Other Terminations	(1)	0	(1)	(21)	N/A	(1)	0	(24)
10. Beneficiary Deaths	N/A	N/A	N/A	N/A	(31)	N/A	N/A	(31)
11. Data Corrections	0	0	0	0	2	0	0	2
June 30, 2015	231	11	42	1,243	515	124	4	2,170

* Qualified Domestic Relations Order

Distribution of Active Participants

The following table displays the number of active members by age and service as of June 30, 2015.

Attained Age	--Years of Service at Valuation Date--						Total	
	0-4	**5-9**	**10-14**	**15-19**	**20-29**	**30+**	**No.**	**Valuation Payroll**
15-19	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0
50-54	0	0	0	0	1	0	1	184,610
55-59	0	0	0	0	10	0	10	1,897,793
60-64	0	0	0	0	58	2	60	11,316,428
65-69	0	0	3	2	51	23	79	15,184,542
70-74	0	0	0	1	23	16	40	7,744,917
75+	0	0	0	0	23	18	41	7,956,176
Total	**0**	**0**	**3**	**3**	**166**	**59**	**231**	**$44,284,466**

* Years of Service at Valuation Date may include service related to a Qualified Domestic Relations Order**.**

Distribution of Average Annual Payroll

The following table displays the average annual payroll of active members by age and service as of June 30, 2015.

	--Years of Service at Valuation Date--								
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35+**	**Average Valuation Payroll**
15-19	$0	$0	$0	$0	$0	$0	$0	$0	$0
20-24	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0
50-54	0	0	0	0	184,610	0	0	0	184,610
55-59	0	0	0	0	190,354	184,610	0	0	189,779
60-64	0	0	0	0	187,571	189,455	197,935	0	188,607
65-69	0	0	184,610	197,935	188,710	191,569	196,723	211,260	192,209
70-74	0	0	0	184,610	189,051	195,581	194,301	200,600	193,623
75+	0	0	0	0	192,446	189,455	197,935	197,935	194,053
All Ages	**$0**	**$0**	**$184,610**	**$0**	**$188,756**	**$190,637**	**$196,031**	**$200,286**	**$191,708**

* Years of Service at Valuation Date may include service related to a Qualified Domestic Relations Order**.**

Distribution of Terminated Vested Members & QDRO's Not Receiving Benefits

The following table displays the number of terminated vested members and QDRO's not receiving benefits by age and service as of June 30, 2015.

Attained Age	--Years of Service at Valuation Date --							
	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total
15-19	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0
50-54	0	0	0	0	1	0	0	1
55-59	0	0	0	0	4	1	1	6
60-64	0	0	0	0	4	3	0	7
65-69	0	0	0	0	1	0	0	1
70-74	0	0	0	0	0	0	0	0
75+	0	0	0	0	0	0	0	0
Totals	**0**	**0**	**0**	**0**	**10**	**4**	**1**	**15**

Distribution of Retired Judges, Beneficiaries & QDRO's Receiving Benefits

The following table displays the distribution of retired judges, beneficiaries & QDRO's receiving benefits by age as of June 30, 2015.

Attained Age	Service & Disability Retired Judges	Beneficiaries & QDRO's	Total
Under 30	0	2	2
30-34	0	2	2
35-39	0	0	0
40-44	0	2	2
45-49	0	6	6
50-54	0	3	3
55-59	2	18	20
60-64	70	39	109
65-69	245	52	297
70-74	289	92	381
75-79	242	96	338
80-84	208	92	300
85+	229	235	464
Total	**1,285**	**639**	**1,924**

Distribution of Annual Benefits for Retired Judges, Beneficiaries & QDRO's

The following table displays the distribution of annual benefits for retirees, beneficiaries & QDRO's by age as of June 30, 2015.

Attained Age	Service & Disability Retired Judges	Beneficiaries & QDRO's	Total
Under 30	$ 0	$ 9,646	$ 9,646
30-34	0	27,899	27,899
35-39	0	-	-
40-44	0	44,214	44,214
45-49	0	251,899	251,899
50-54	0	55,726	55,726
55-59	239,481	732,436	971,917
60-64	9,056,326	2,195,667	11,251,993
65-69	29,538,827	2,985,174	32,524,001
70-74	34,904,192	5,803,394	40,707,586
75-79	29,577,485	6,154,351	35,731,836
80-84	24,713,439	6,012,401	30,725,840
85+	28,195,029	14,342,968	42,537,997
Total	**$ 156,224,779**	**$ 38,615,775**	**$ 194,840,554**
Average	**121,576**	**60,432**	**101,268**

Appendix D – Glossary of Actuarial Terms

Glossary of Actuarial Terms

Accrued Liability	The portion of the actuarial present value of projected benefits allocated to service before the valuation date in accordance with the actuarial cost method.
Actuarial Assumptions	Assumptions made about the occurrence of future events that will affect pension costs. Assumptions generally can be broken down into two categories: demographic and economic. Demographic assumptions include such things as mortality, disability and retirement rates. Economic assumptions include investment return, salary growth and inflation.
Actuarial Cost Method	A procedure employed by actuaries for the allocation of the actuarial present value of projected benefits to time periods, usually in the form of a normal cost and an actuarial accrued liability to achieve certain funding goals for a pension plan. Sometimes this is referred to as the "funding method."
Actuarial Valuation	The determination, as of a valuation date, of the normal cost, actuarial accrued liability, value of assets and related actuarial present values for a pension plan.
Amortization Period	The period of time used for determining the amount, timing, and pattern of recognition of contributions. The period for determining the employer's annual required contributions (ARC) under GASB 27 equals the average future working period for the active members in the plan as of the valuation date.
Normal Cost	The portion of the actuarial present value of projected benefits that is allocated to a period, typically twelve months, under the actuarial cost method. The normal cost may include a provision for expenses.
Pension Actuary	A person who is responsible for the calculations necessary to properly fund a pension plan.
Present Value of Benefits	Sometimes called the "actuarial present value of benefits," the total dollars needed as of the valuation date to make future payments of all benefits, earned in the past or expected to be earned in the future, for current members by application of a particular set of actuarial assumptions.
Unfunded Liability	When a plan or pool's value of assets is less than its accrued liability, the difference is the plan or pool's unfunded liability. The plan or pool will have to temporarily increase contributions.