



Florida Retirement System

Actuarial Valuation as of July 1, 2014

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November 26, 2014

Mr. Dan Drake
State Retirement Director
Division of Retirement
P.O. Box 9000
Tallahassee, FL 32315-9000

Re: **Actuarial Valuation as of July 1, 2014**

Dear Mr. Drake:

We have conducted an annual actuarial valuation of the Florida Retirement System (FRS) as of July 1, 2014, for assessing plan funded status and determining actuarially calculated contribution rates for the July 2015 - June 2016 plan year. The major findings of the valuation are contained in the following report.

Section 1 contains an Executive Summary of the results of our valuation followed by four sections containing detailed information on Assets (Section 2), Liabilities (Section 3), Contributions (Section 4), and Accounting Statements (Section 5). In the Appendices, we provide information regarding actuarial methods and assumptions, a summary of plan provisions, membership statistics, cost projections, comparisons/reconciliation, and a glossary of terms.

All costs and liabilities shown in this report have been determined on the basis of actuarial assumptions and methods set forth in Appendix A. The actuarial assumptions used in performing this valuation have been presented by the actuary and adopted at the September 24, 2014 Actuarial Assumptions Conference based on Milliman's most recent review of the System's experience for the period July 1, 2008 through June 30, 2013. Additional details on that review of System experience can be located in our August 11, 2014 presentation materials to the Actuarial Assumptions Conference Principals and our formal 2014 Experience Study report, which was issued on September 8, 2014.

We believe the assumptions and methods used in this report are reasonable, and the assumptions used both for purposes of developing actually calculated contribution rates and for financial reporting purposes under GASB Statement No. 27 are identical. The accounting calculations for the System's financial reporting and June 30, 2014 CAFR will be conducted under the new GASB Statement No. 67 standard. That GASB 67 information will be issued under separate cover.

The results of this report are dependent upon future experience conforming to the assumptions disclosed in this report. Future actuarial measurements may differ significantly from the current measurements presented in this report due to many factors, including: 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) and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.



This work product was prepared solely for the Florida Department of Management Services for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

Actuarial computations presented in this report are for purposes of assessing funded status and determining the actuarially calculated contribution rates for the System. Actuarial computations under GASB Statement No. 27 are for purposes of fulfilling financial reporting requirements. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals, and of GASB Statement No. 27. Determinations for purposes other than meeting those requirements referenced in this paragraph may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

In preparing our report we relied, without audit, on information (some oral and some written) supplied by the Division of Retirement. This information includes, but is not limited to, statutory provisions, employee census, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

This actuarial valuation was prepared and completed by us and those under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate, and in our opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit provision or related expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. To the best of our knowledge, there were no known events that were not taken into account in the valuation.

Milliman's work product was prepared exclusively for the internal business use of Florida Department of Management Services, Division of Retirement, for a specific and limited purpose. It is a complex technical analysis that assumes a high level of knowledge concerning the Florida Retirement System's operations, and uses Division data, which Milliman has not audited. To the extent that Milliman's work is not subject to disclosure under applicable public record laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

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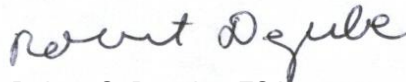
No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with Actuarial Standards of Practice, the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Respectfully submitted,



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Table of Contents

1. Executive Summary	1
2. Assets	12
3. Liabilities	21
4. Contributions	26
5. Accounting Statement	41
Appendix A Actuarial Methods, Procedures and Assumptions.....	A-1
Appendix B Summary of Plan Provisions	B-1
Appendix C Membership Data	C-1
Appendix D Projections.....	D-1
Appendix E Comparisons/Reconciliation	E-1
Appendix F Glossary	F-1

1. Executive Summary

This report presents the results of our July 1, 2014 actuarial valuation of the Florida Retirement System (FRS) Defined Benefit Program. This valuation is used to determine actuarially calculated employer contribution rates for the July 1, 2015 – June 30, 2016 plan year. The actual contribution rates paid by participating employers during that year will be determined by Florida Statute. While the System funded status (increased from 85.9% to 86.6%) and System average actuarially calculated employer contribution rates (decreased from 9.21%¹ of pay to 8.99% of pay) showed modest improvement compared to the previous valuation as of July 1, 2013, in our opinion the System is in a markedly improved overall position compared to one year ago. The reasons for that opinion are:

- On a fair Market Value of Assets (MVA) basis, the System's investment performance was markedly above the assumed long-term return. On that basis the calculated return for the July 1, 2013 – June 30, 2014 plan year was 17.54%. That performance, in combination with strong prior performance means that as of July 1, 2014 the MVA is \$11.3 billion higher than the smoothed Actuarial Value of Assets (AVA) used for funded status and contribution rate calculations. That \$11.3 billion not yet recognized investment gain will be systematically recognized over the next several years if investment experience during that period meets or exceeds assumption. Alternatively, if investment experience during that period fails to meet assumption, the not yet recognized gain will serve as a cushion to help mitigate the magnitude of increases in the actuarially calculated employer contribution rate.
- The assumption for long-term average annual future investment return was decreased to a more conservative 7.65% at the 2014 Actuarial Assumptions Conference held on September 24th. The assumption had previously been 7.75%. The assumption change increased the calculated Actuarial Liability by approximately \$2.0 billion and increased the calculated System average Normal Cost Rate by approximately 0.17% of pay. The assumption change increases the likelihood the System will meet or exceed its assumed investment return in future years, and will also serve to lessen the magnitude of contribution rate increases in the event that actual future investment performance fails to meet the assumption.
- A more conservative actuarial cost allocation method was used in this valuation, based on decisions made at the 2014 Assumptions Conference. The method used, which is an alternative interpretation of the Ultimate Entry Age cost allocation method, increased the calculated Actuarial Liability by \$0.5 billion, while not affecting the calculated Normal Cost Rate.
- The methodology used to set the assumption of the likelihood that future members will enter the Deferred Retirement Option Program (DROP) was modified to a markedly more conservative basis in this valuation. In the previous valuation, the DROP entry assumption used for the purposes of determining actuarially calculated employer contribution rates employed a methodology that artificially depressed the assumption. (Further discussion of that methodology is included in both our July 1, 2013 valuation report and our August 11, 2014 presentation materials to the Assumptions Conference Principals.) As approved

¹ Average employer contribution rate of 9.21% as referenced in the September 24, 2014 Actuarial Assumptions Conference presentation is the sum of the Composite Normal Cost rate excluding DROP (4.67%) and the Composite UAL Cost rate including DROP (4.54%) developed in Table IV-11 of the 2013 Actuarial Valuation. The System average normal cost rate used in the presentation intentionally excluded DROP to make a more consistent comparison with 2014 preliminary results, since (effective for the 2014 valuation) the Conference approved the recommendation to eliminate the use of artificially depressed rates for the incidence of DROP entry in the derivation of a "normal cost" rate applicable to current members in DROP. The sum of the 2013 rates including DROP in the Normal Cost component was 9.17%.

by the 2014 Assumptions Conference, in this valuation the artificially depressed rate methodology has been eliminated, and the DROP entry assumption is now modeled based on full recent System experience. In our view, this revised methodology vastly increases the likelihood that future DROP entry experience will meet assumption. This, in turn, will vastly decrease the likelihood of future demographic losses on Actuarial Liability due to DROP entry incidence far in excess of assumption.

- The System's payroll increase assumption was lowered from 4.00% to a more conservative 3.25%, per decisions made at the 2014 Assumptions Conference. System unfunded liabilities are amortized as a level percentage of projected pay. As such, decreasing this assumption increases the UAL Rate component of the actuarially calculated contribution rate, all else being equal.

The most notable result of this year's rate calculations are that the two key rate components, Normal Cost and UAL Cost, changed noticeably, with the changes being in opposite directions at the System average level. Normal Cost decreased from 4.63% of pay to 4.10% of pay, while UAL Cost increased from 4.54% of pay to 4.89% of pay. The sum of Normal Cost plus UAL Cost was a net decrease at the system average level, from 9.17%¹ in the previous valuation to 8.99% of pay in this valuation. The reasons for the changes in the rate components are summarized immediately below.

Normal Cost is the estimated economic value of benefits being earned during the current year by currently active System members, based on the actuarial cost allocation method used in the valuation. The Normal Cost is based on both the level of projected future benefits for current active members, and the length of the retirement period over which those benefits are paid. As such the assumptions for projected pay increases and the timing of retirement are pivotal determinants of normal cost. As detailed in our 2014 Experience Study report and its associated August 11th presentation materials, significant updates were made to the individual member salary increase and timing of retirement assumptions to better reflect recent observed and anticipated future experience for System members.

Salary increase assumptions were noticeably lowered for most membership classes and service levels, reflecting experience over both the five-year observation period of the 2014 Experience Study and several years prior to that observation period.

Two major trends on retirement timing were clear from the 2014 Experience Study and reflected in the updated assumptions. First, there was a trend away from electing retirement or DROP entry at the time of first eligibility for immediate unreduced retirement at the earliest retirement ages for membership classes other than Special Risk. Second, for those same membership classes there was a pronounced tendency among those who did not retire or enter DROP at first eligibility to continue working for longer periods on average than was indicated by the assumptions used in the prior valuation. Generally, the trend for these classes is to continue working to ages closer to eligibility for Medicare and unreduced Social Security benefits, rather than retiring in the first several years after reaching initial (age 62) eligibility for Social Security. The combined effects of lower projected future benefits (due to lower projected compensation at retirement), and shorter average post-retirement payment periods combined to reduce the Normal Cost for membership classes other than Special Risk.

The UAL Cost is calculated to eliminate the UAL systematically over a specified time period if future experience follows assumptions and all actuarially calculated contributions are made. UAL Cost is stated as a rate of pay, with that rate calculation having the UAL in the numerator and both a financial amortization factor and the current payroll on which UAL Rate is charged in the denominator. The numerator of the UAL Cost calculation, the UAL, is essentially unchanged from the prior valuation. This is due to the effect of strong investment performance being balanced against changes to assumptions and methods at the 2014 Assumptions Conference, which increased calculated UAL, all else being equal. In the denominator the most

significant factor affecting UAL Cost was the modification of the assumption for future annual System payroll growth from 4.00% in the previous valuation to 3.25% in this valuation. The change in the assumption, which was made both to conform with observed 10-year historical experience for the payroll on which UAL Cost is charged and to better anticipate future expected experience, modified the financial amortization factor and increased the first year amortization charge by approximately 8%. That assumption driven increase is reflected in the approximately 8% increase in System average UAL Cost, from 4.54% of pay in the prior valuation to 4.89% of pay in this valuation.

We also would like to point out several other key items regarding this valuation:

- The contribution rate calculation methodology approved by the 2014 Assumptions Conference uses the Ultimate Entry Age Normal (Ultimate EAN) actuarial cost allocation method. Under Ultimate EAN, the Normal Cost Rate is calculated as the rate that would be applicable if the plan provisions of Senate Bill 2100 for members hired on or after July 1, 2011 applied to all FRS members for the entirety of their projected working careers. Of course, the present value of total projected benefits calculated for each member reflects the actual tier in which the member participates. As such, the methodology used for calculating contribution rates understates Normal Cost but overstates Actuarial Liability when compared to some alternative calculation methodologies, such as the Individual Entry Age Normal (Individual EAN) methodology that is mandated by GASB for financial reporting calculations under GASB Statements Nos. 67 & 68.
- The Ultimate EAN cost allocation method being used for liability and rate calculations, like any actuarial cost method, divides the present value of total projected benefits for each active member between past service (Actuarial Liability, or AL) and future service (present value of future normal costs). The cost allocation method does not impact the calculation of the present value of total projected benefits.

In general, throughout this report, any reference to FRS refers to the FRS Defined Benefit Program, unless noted to the contrary.

The tables immediately following compare July 1, 2013 actuarial valuation results with July 1, 2014 actuarial valuation results. The difference column shows the change between the July 1, 2013 valuation results and the July 1, 2014 valuation results.

A. Assets, Liabilities, and Funded Status

A comparison of the Actuarial Liabilities and Actuarial Value of Assets (AVA) follows. These figures are based upon the actuarial assumptions used to determine the actuarial costs of the FRS (see Appendix A). Under current methodology, and as required by Florida law, the AVA cannot be less than 80% or greater than 120% of the Market Value of Assets (MVA). This corridor restriction does not come into play unless there are dramatic asset gains or losses in the prior plan year. The purpose of the corridor is to ensure that the “smoothed” value of assets does not vary from the market value by more than 20%. As of July 1, 2014, the AVA is 92.43% of the MVA.

Valuation Results (numbers in \$ billions)				
	July 1, 2013	July 1, 2014	Difference	
1. Actuarial Liability	\$153.3	\$160.1	\$6.8	
2. Actuarial Value of Assets	<u>\$131.7</u>	<u>\$138.6</u>	<u>\$6.9</u>	
3. Unfunded Actuarial Liability (1 - 2)	\$21.6	\$21.5	(\$0.1)	
4. Funded Percentage (2 / 1)	85.9%	86.6%	0.7%	

In Section 5 of this report we present an additional measure of funded status, the "accumulated benefit obligation" (ABO), based on both the AVA and the MVA.

B. Contributions

Actuarially calculated contribution rates by class are determined annually in the actuarial valuation. Actual contribution rates paid by employers for each class are set by statute and consist of Normal Cost and UAL Cost components. For the 2014-2015 plan year, the actuarially calculated rates determined by the 2013 valuation and the legislated rates are equivalent. The 2015-2016 actual contribution rates will be set during the 2015 legislative session, with advice from this valuation. The Unfunded Actuarial Liability amortization payment will consist primarily of costs or savings associated with plan changes, assumption changes, differences in actual and expected experience, or changes in actuarial methodology (if applicable). As of July 1, 2014 the FRS has a UAL of \$21.5 billion. The UAL Cost is calculated to eliminate the UAL over a pre-determined period if future experience follows assumptions.

The comparative FRS Regular and Special Risk contribution rates resulting from this valuation and the prior valuation are as follows. See Section 4 for more details on rate development and valuation results for all classes.

	July 1, 2013 Valuation (2014-2015 Rates)		July 1, 2014 Valuation (2015-2016 Rates)		Difference	
	Regular	Special Risk	Regular	Special Risk	Regular	Special Risk
Normal Cost	3.53%	10.76%	2.78%	11.17%	-0.75%	0.41%
UAL Cost	<u>3.01%</u>	<u>8.95%</u>	<u>3.15%</u>	<u>10.68%</u>	<u>0.14%</u>	<u>1.73%</u>
Total Cost for FRS Employers	6.54%	19.71%	5.93%	21.85%	-0.61%	2.14%

C. Membership

The total membership (active, terminated vested, retired, and DROP) of the FRS Defined Benefit Program increased by 10,262 members from 1,006,526 as of July 1, 2013, to 1,016,788 as of July 1, 2014, an increase of 1.0%. The total annualized projected payroll of non-DROP active members increased by 1.49%, from \$22.06 billion for the 2013-2014 plan year to \$22.39 billion for the 2014-2015 plan year, a \$0.33 billion increase in payroll. Note that the payroll on which UAL Cost rates are determined is higher, and includes the payroll of DROP and members in Optional Retirement Plans subject to the UAL contribution.

A summary of membership change by status follows:

	Valuation Results: Counts		
	July 1, 2013	July 1, 2014	% Change
Active Members	513,823	511,751	-0.4%
Terminated Vested Members	105,346	106,750	1.3%
Retired Members	345,189	360,232	4.4%
DROP Members	<u>42,168</u>	<u>38,055</u>	-9.8%
Total Members	1,006,526	1,016,788	1.0%

D. Experience

Changes to assets and liabilities between July 1, 2013 and July 1, 2014 are described in this section.

1. Assets:

Changes in the smoothed Actuarial Value of Assets (AVA) during the plan year were due to:

Contributions received	\$2.973	
Payment of benefits and expenses	(8.846)	
Assumed plan year investment returns	9.982	
Investment plan year gain/(loss) experience	<u>2.832</u>	
Total plan year Actuarial Value of Assets increase	\$6.941	Billion

The actual plan investment return on the AVA was 9.95% compared to the 2013 valuation's assumed return of 7.75%. On a market value basis, the assets earned 17.54%.

On a year-by-year basis, asset returns were as follows:

	Rates of Return*		
	2011/2012	2012/2013	2013/2014
Market Value	0.21%	13.63%	17.54%
Actuarial Value	6.74%	8.02%	9.95%

* Assumes net cash flow occurs mid-year.

2. Liabilities:

Changes in the Actuarial Liability during the plan year were due to:

Expected increase, due to combined effects of Normal Cost plus interest-related growth in Actuarial Liability less benefit payments during plan year	\$4.517
Change in actuarial cost method	0.535
Changes in assumptions	1.334

Liability Plan Year (Gain) / Loss Experience

Retired, disabled, & beneficiary mortality	0.255
Salary increases (less) / more than assumption	(0.558)
New active members (includes rehires)	0.412
Other demographic sources not noted above ¹	<u>0.333</u>
Liability plan year (gain) / loss experience	0.442

Total plan year Actuarial Liability increase \$6.828 Billion

¹ Includes the net effects of DROP entry, retirement, second election transfers to the Investment Plan and all other cessations of active service, when compared against assumptions used in determining actuarially calculated contribution rates in the July 1, 2013 actuarial valuation

3. Unfunded Liability:

The net change in the UAL of the FRS was a decrease of \$0.113 billion, from \$21.622 billion to \$21.509 billion. The net decrease is attributable to the following:

Change due to:

▪ Expected increase, based on the net combined effect of plan contributions received, assumed investment, and assumed demographic experience	\$0.408	
▪ Investment plan year (gain)/loss experience	(2.832)	
▪ Liability plan year (gain)/loss experience	0.442	
▪ Changes in actuarial cost method and assumptions	<u>1.869</u>	
Total plan year increase/(decrease) in UAL	\$ (0.113)	Billion

See table on the following page for total gains/losses by class.

2013-2014 Plan Year (Gain)/Loss Experience and Effects of Assumption and Method Changes ¹
(All Amounts in Thousands)

	<u>Regular</u>	<u>Special Risk</u>	<u>Special Risk Administrative</u>	<u>Judicial</u>	<u>-- Elected Officers' Class -- Leg-Atty-Cab</u>	<u>Local</u>	<u>Senior Management</u>	<u>Grand Total</u>
Investment (gain)/loss (prior to DROP allocation)	(\$1,925,281)	(\$460,677)	(\$1,494)	(\$14,206)	(\$1,106)	(\$6,002)	(\$43,751)	(\$2,452,518)
Allocation of DROP investment (gain)/loss	(298,016)	(71,309)	(231)	(2,199)	(171)	(929)	(6,772)	(379,627)
Investment plan year (gain)/loss experience	(\$2,223,297)	(\$531,986)	(\$1,725)	(\$16,405)	(\$1,277)	(\$6,931)	(\$50,524)	(\$2,832,145)
<u>Liability plan year (gain) / loss experience by source</u>								
Retired, disabled & beneficiary mortality	\$202,754	\$36,461	(\$402)	\$2,078	\$164	\$2,190	\$11,822	\$255,067
Salary increases (less)/more than assumed	(318,513)	(242,487)	47	(325)	772	3,240	(713)	(557,979)
New active members (includes rehires)	317,376	73,647	5,332	1,671	351	315	13,558	412,250
Other demographic sources not noted above ²	(2,426)	232,613	1,280	27,602	(4,341)	(288)	77,935	332,375
Liability plan year (gain) / loss experience	\$199,191	\$100,234	\$6,257	\$31,026	(\$3,054)	\$5,457	\$102,602	\$441,713
Change in actuarial cost method	\$281,352	\$206,497	(\$4)	\$17,503	\$107	\$1,267	\$28,789	\$535,511
Changes in assumptions	538,524	1,017,218	(5,406)	(5,262)	(3,155)	(24,696)	(183,242)	1,333,981
Changes in actuarial cost method and assumptions	\$819,876	\$1,223,715	(\$5,410)	\$12,241	(\$3,048)	(\$23,429)	(\$154,453)	\$1,869,492

¹ For purposes of this exhibit, liabilities and assets associated with members in DROP are allocated to their respective membership classes. This differs from their representation in Section 4, where UAL bases are tracked separately for the DROP.

² Includes the net effects of DROP entry, retirement, second election transfers to the Investment Plan and all other cessations of active service, when compared against assumptions used for actuarially calculated contribution rate calculations in the July 1, 2013 valuation. The losses for Special Risk and Senior Management membership classes were primarily caused by DROP entry during the plan year markedly in excess of the assumption used in the 2013 valuation's contribution rate calculations. The DROP entry assumption for this valuation was updated both to reflect recent experience and to eliminate the use of artificially depressed rates of assumed DROP entry. Please refer to our August 11, 2014 presentation to the Assumptions Conference Principals for additional details.

4. Actuarially Calculated Contribution Rates:

On a level-rate-of-pay basis, the FRS employer contribution rates for each membership class changed as follows:

	<u>Regular</u>	<u>Special Risk</u>	<u>Special Risk Administrative</u>	<u>-- Elected Officers' Class --</u>		<u>Local</u>	<u>Senior Management</u>
				<u>Judicial</u>	<u>Leg-Atty-Cab</u>		
A. 1. July 1, 2013 Employer Normal Cost	3.53%	10.76%	3.68%	10.02%	6.14%	8.21%	4.76%
2. UAL Cost	<u>3.01%</u>	<u>8.95%</u>	<u>51.44%</u>	<u>23.69%</u>	<u>50.85%</u>	<u>46.01%</u>	<u>20.03%</u>
3. Total July 1, 2013 Actuarially Calculated Employer Contribution Rate (1.+2.)	6.54%	19.71%	55.12%	33.71%	56.99%	54.22%	24.79%
B. 1. July 1, 2014 Employer Normal Cost	2.78%	11.17%	3.23%	11.43%	6.40%	8.37%	4.11%
2. UAL Cost (See Table 4-11)	<u>3.15%</u>	<u>10.68%</u>	<u>35.49%</u>	<u>24.44%</u>	<u>47.90%</u>	<u>45.30%</u>	<u>20.61%</u>
3. Total July 1, 2014 Actuarially Calculated Employer Contribution Rate (1.+2.)	5.93%	21.85%	38.72%	35.87%	54.30%	53.67%	24.72%
C. Change in Total Actuarially Calculated Employer Contribution Rate (B.3.-A.3.)	-0.61%	2.14%	-16.40%	2.16%	-2.69%	-0.55%	-0.07%

E. Graphs

Chart A: Assets / Liabilities

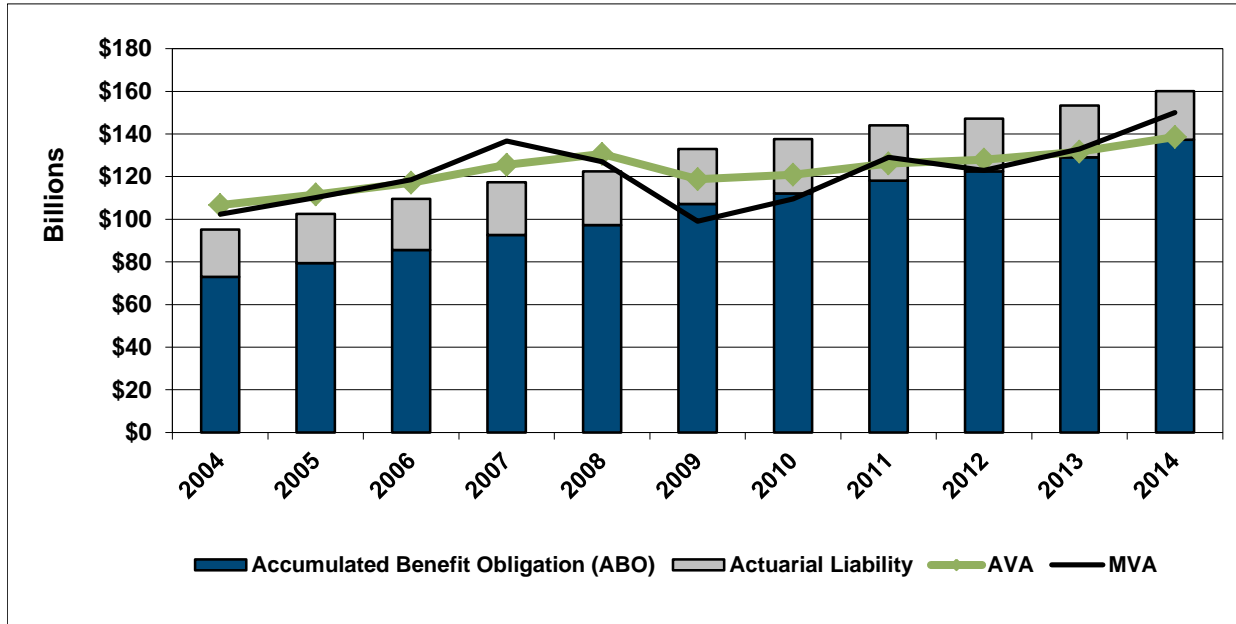


Chart B: Cash Flows

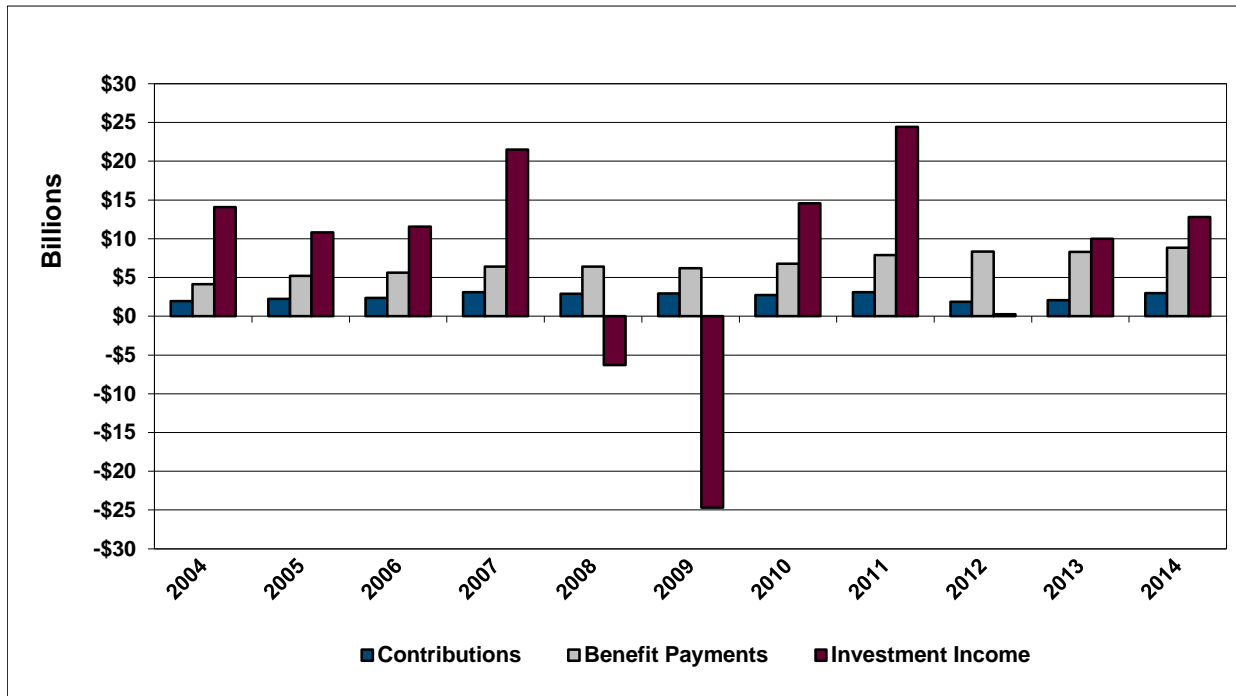


Chart C: Actuarially Calculated Contribution Rates (as % of Payroll)

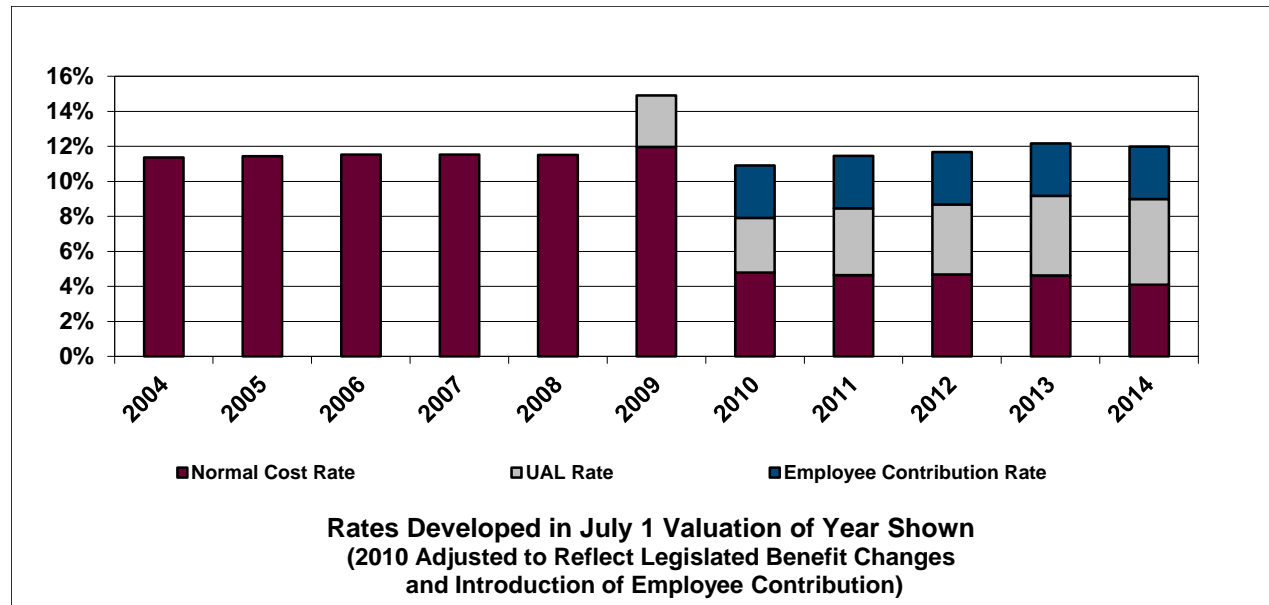
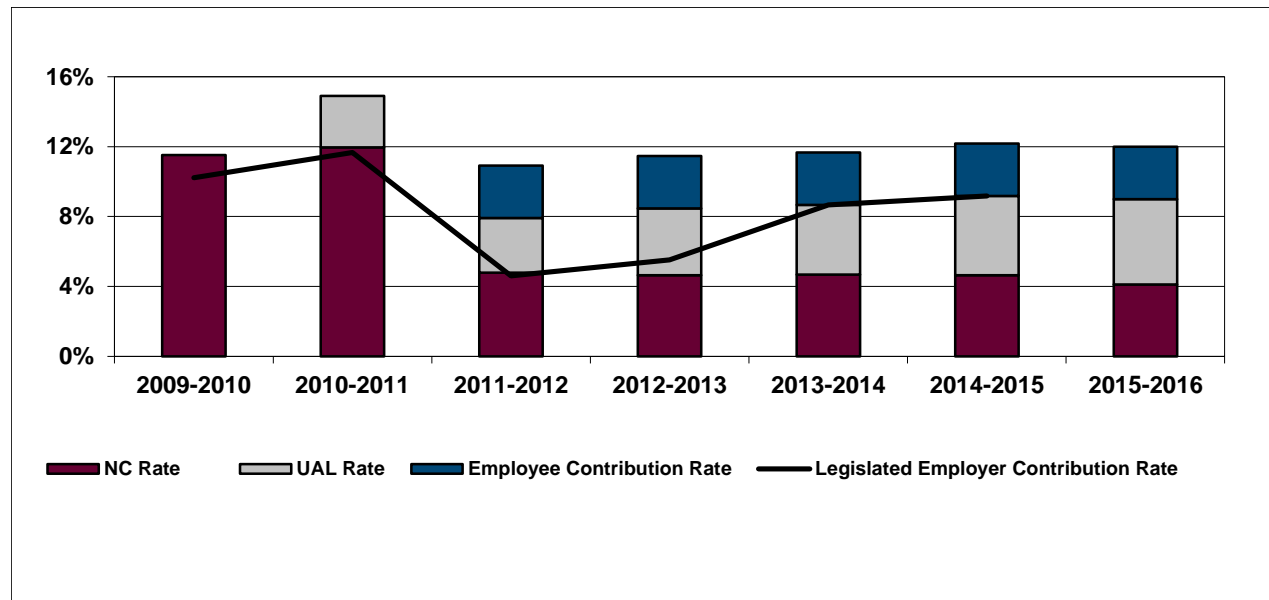


Chart D: Actuarially Calculated vs. Legislated Employer Contribution Rates (as % of Payroll)



F. Summary Comments

We caution that the results herein are applicable only for the next plan year. More than anything, future investment results will impact future contribution rates.

- The most recent experience study covered the period from July 1, 2008 to June 30, 2013. Experience studies are performed every five years and compare actual plan experience to the assumptions used in this report. This valuation reflects the method and assumptions changes proposed by the 2014 Experience Study and adopted at the 2014 Assumptions Conference.
- Areas of emphasis for discussion and review in subsequent Assumptions Conferences will include the amortization policy, the investment return assumption and the cost allocation method.

In attempting to anticipate future rates for the System, it is important to remain cognizant of the Investment Plan (IP) defined contribution program, which is available as an alternative to the defined benefit program for employees. The existence of the IP affects the DB plan contribution rates inasmuch as active members can elect to participate in either the DB plan or the IP. Thus, plan election decisions can affect the demographic composition of the DB plan. Current IP membership is nearly 18% of total active membership.

We mention these caveats because the actuarial process merely measures the impact of these factors on FRS costs and liabilities after they have occurred. Unanticipated benefit or salary changes, changes in member behavior (e.g., withdrawal rates, rates of retirement, etc.), or changes in investment return could necessitate a change in the actuarially calculated contribution rates.

Finally, we caution the readers of this report not to overemphasize the results of any single valuation as long-term trends are more important.

G. DROP Contribution Rate

DROP started in 1998, with a study completed prior to the DROP's implementation showing a material cost increase due to its introduction. Since its introduction and consistent with legislative directive, employers have been charged a uniform DROP Contribution Rate on all DROP payroll without regard to a participant's membership class prior to entering DROP. In addition, the asset reallocation developed in Table 2-6 is based on the presumption that assets assigned to the current DROP members equal the same percentage of DROP liabilities as the System average funded percentage of the FRS.

Like other membership classes, the DROP Contribution Rate has two components: Normal Cost and UAL Cost. The employer-paid Normal Cost is set to the System average employer-paid Normal Cost of 4.10%. The UAL Cost is consistent with the UAL Cost component of the other membership classes. Essentially, DROP employers are assigned a proportional share of the AVA. To accomplish this, assets are reallocated so that the DROP funded percentage is the same as the System average funded percentage. This asset reallocation results in a UAL Cost for DROP payroll of 7.12%. The total DROP Contribution Rate (Normal Cost plus UAL Cost) in this valuation is 11.22%, compared to a DROP Contribution Rate of 11.02% in the prior valuation.

2. Assets

In many respects, an actuarial valuation can be considered similar to an inventory process. The inventory is taken annually as of the actuarial valuation date, which for this valuation is July 1, 2014. On that date the assets available for the payment of current and future benefits are appraised. These assets are compared with the inventory of Actuarial Liabilities. This inventory process leads to a method of calculating what contributions by members and/or their employers are needed to systematically eliminate any shortfall if future experience follows assumptions. The calculations are based on direction from the 2014 Assumptions Conference for the appropriate length of time over which to systematically eliminate the shortfall, which is technically referred to as Unfunded Actuarial Liability.

This section of the report deals with the asset determination. In the next section, the Actuarial Liabilities will be discussed. Section 4 will deal with the process for determining actuarially calculated contributions, based upon the relationship between the assets and Actuarial Liabilities.

Two measures of FRS assets are presented in the valuation:

The market value of assets provides the most accurate fair market “snapshot date” assessment of plan resources at a given date, and will be used on the balance sheet statements of position for the System and participating employers when upcoming GASB financial reporting standards come into effect. It tends to be the more volatile of the two asset measures and therefore is not used for determining the actuarially calculated contribution rates.

The actuarial value of assets is a second inventory measure of FRS asset holdings. It is related to the market value of assets, but uses a smoothing technique applied to mitigate year-to-year market fluctuations by recognizing actual single year investment returns different from the long-term assumption systematically over a multi-year period. It is used to stabilize year-to-year changes in the actuarially calculated contribution rates. Note that the investment return assumption for the year prior to the actuarial valuation date was 7.75%. The assumption is changed to 7.65% with this valuation.

The actuarial smoothed asset valuation measure, implemented in 1989, reflects a five-year averaging methodology, as required by Florida Law (S.121.031(3)(a), Florida Statutes). Under this method, the expected actuarial value of assets is determined by crediting the rate of investment return assumed in our valuation (7.75% through June 30, 2014; 7.65% beginning July 1, 2014) to the prior year's actuarial value of assets. Then, 20% of the difference between the actual market value and the expected actuarial value of assets is recognized. The actuarial value of assets is also restricted by a 20% corridor around the market value of assets, so that the actuarial value cannot be greater than 120% or less than 80% of the market value. Table 2-4 presents the details of this calculation. As of July 1, 2014 the actuarial value of assets is 92.43% of the market value of assets.

Seven tables are presented in this section, summarizing the financial resources of the System on July 1, 2014. Table 2-1 reconciles the market value of assets, as provided by the Division, to the asset values used in this valuation. Table 2-2 shows the reconciliation of valuation assets from June 30, 2013 to June 30, 2014. The assets are presented by category in Table 2-3. Table 2-4 provides a detailed development of the July 1, 2014 actuarial value of assets. In Table 2-5, the actuarial value of assets is allocated to each membership class, based on estimated cash flows, and the reallocation of assets from the various classes to the DROP class. Table 2-6 shows the derivation of reallocation of assets to/from the DROP class in order that DROP as a class is funded to the same extent as the System as a whole. (This reallocation ensures that the accumulation of assets in the DROP class does not impact the contribution rates of the other classes). Finally Table 2-7 presents rates of return and a comparison of asset allocation figures between 2013 and 2014.

The Market Value of Assets as of July 1, 2014 was based on information furnished to us by the Division of Retirement. The values have been accepted for use in this report without audit, but have been reviewed for consistency and reasonableness, when compared to prior reports.

The FRS Trust Fund is comprised of several distinct funds. The Florida Retirement System Trust Fund Only represents defined benefit plan assets. The Operating Trust Fund is the Division of Retirement's mechanism for spending its annual appropriation from the FRS Trust Fund. The Contribution Clearing Trust Fund is the fund into which all employer and employee contributions are made, and then transferred back out to the appropriate funds (DB Plan, IP Trust, optional annuity plans, etc.) In Table 2-1 we have denoted DB Plan assets as the sum of the FRS Trust Fund Only plus the Operating Trust Fund. Assets appearing in the Contribution Clearing Trust Fund as of the June 30, 2014 report date are generally designated for transfer to the Investment Plan, so are excluded from the DB Plan assets reflected in this valuation.

It is our understanding that FRS treats monthly member balance increases and interest crediting on those accumulated balances for DROP participants as a balance sheet "Accrued DROP Liability" in its financial statements. In other words, the Accrued DROP Liability is reported as a deduction from the overall value of Trust assets in the System's financial statements. While these accumulating DROP member balances are indeed linked to future DROP single sum payments, the assets underlying those amounts are still held in the Trust as of the actuarial valuation date. Additionally, the Actuarial Liabilities shown in this valuation report reflect the full value of projected future disbursements from the Trust for future single sum DROP benefits, since those benefits have not yet been distributed from the Trust. As such, the DROP Accrued Liability is not deducted from the assets used in our valuation so that assets and Actuarial Liabilities are appropriately matched. That is the reason for the adjustment shown in Table 2-1.

The benefit payments shown in FRS's financial statements indicate a year-over-year increase in the Accrued DROP Liability. The pension payments listed in Table 2-2 are net of the increase in the Accrued DROP Liability from June 30, 2013 to June 30, 2014. The increase in Accrued DROP Liability reflects additional monthly credit and interest accumulation for future single sum DROP benefits that have not been disbursed from the Trust as of June 30, 2014. That accumulation is included in the benefit payments entry on the System's financial statements. Since the accumulated amounts have not been disbursed from the Trust assets as of plan year end, that accumulation is netted out of the reported benefit payment entry to get an actuarial benefit payment entry representing the Trust disbursements. As noted above, measured Actuarial Liabilities at the valuation date include the full present value of the projected future single sum disbursements from the Trust for the DROP.

Table 2-1
Florida Retirement System
FRS Trust Fund

	DB Plan Trust ¹	Contribution Clearing Trust	FRS Trust Total
Market Value of Assets on June 30, 2013 for Actuarial Valuation	\$ 133,027,955,768	\$ 1,438,600	\$ 133,029,394,368
- Adjustment for June 30, 2013 DROP Liability	(3,357,306,300)	-	(3,357,306,300)
Net Assets Held in Trust for Pension Benefits on June 30, 2013	\$ 129,670,649,468	\$ 1,438,600	\$ 129,672,088,068
+ Contributions by Source:			
Pension Contributions - State	\$ 474,076,982	\$ 57,818,150	\$ 531,895,132
Pension Contributions - Non-State	1,715,558,889	170,278,669	1,885,837,558
Pension Contributions - Employees	699,578,509	140,141,121	839,719,630
Transfers from IP - Second Elections	50,097,733	-	50,097,733
Transfer from ORP	33,198,166	-	33,198,166
Transfer from OAP	415,277	-	415,277
General Revenue	15,518,554	-	15,518,554
Total Contributions	\$ 2,988,444,110	\$ 368,237,940	\$ 3,356,682,050
+ Interest and Dividends:			
Interest Income	\$ 985,690,123	\$ -	\$ 985,690,123
Dividend Income	2,201,178,475	-	2,201,178,475
Real Estate Income	461,342,370	-	461,342,370
Other	220,329,139	-	220,329,139
Less Investment Activity Expense	(511,032,856)	-	(511,032,856)
Total Investment Income	\$ 3,357,507,251	\$ -	\$ 3,357,507,251
+Net Realized and Unrealized Appreciation:	\$ 19,454,762,329	\$ -	\$ 19,454,762,329
- Deductions by Source:			
Pension Payments ²	\$ 8,045,664,695	\$ -	\$ 8,045,664,695
Benefit Payments - General Revenue Funded	15,518,554	-	15,518,554
Contribution Refunds	6,993,783	-	6,993,783
Disbursements to IP - Second Elections	807,671,764	351,928,363	1,159,600,127
Administrative Expenses	17,039,054	-	17,039,054
Transfers to Other Funds and Departments	832,745	7,797,607	8,630,352
Total Deductions	\$ 8,893,720,595	\$ 359,725,970	\$ 9,253,446,565
Net Assets Held in Trust for Pension Benefits on June 30, 2014	\$ 146,577,642,563	\$ 9,950,570	\$ 146,587,593,133
+ Adjustment for June 30, 2014 DROP Liability	3,389,125,451	-	3,389,125,451
Market Value of Assets on June 30, 2014 for Actuarial Valuation	\$ 149,966,768,014	\$ 9,950,570	\$ 149,976,718,584

¹ "DB Plan Trust" denotes the FRS Trust Only plus Division of Retirement Operating Trust Fund.

² Includes \$31,819,151 increase in Accrued DROP Liability (from \$3,357,306,300 to \$3,389,125,451) for future single sum benefits not yet paid for DROP participants.

Table 2-2
Florida Retirement System
Reconciliation of Market Value of Assets Used for Valuation
DB Plan Trust

Market Value of Assets for Actuarial Valuation as of June 30, 2013	\$133,027,955,768
Adjustment for Contribution Clearing Trust	-
Contributions by Source:	
Pension Contributions - State	474,076,982
Pension Contributions - Non-State	1,715,558,889
Pension Contributions - Employees	699,578,509
Transfers from IP - Second Elections	50,097,733
Transfer from ORP	33,198,166
Transfer from OAP	415,277
Other	-
Interest and Dividends:	
Interest Income	985,690,123
Dividend Income	2,201,178,475
Real Estate Income	461,342,370
Other	220,329,139
Less Investment Activity Expense	(511,032,856)
Net Realized and Unrealized Appreciation	19,454,762,329
Pension Payments	(8,013,845,544) ¹
Contribution Refunds	(6,993,783)
Disbursements to IP - Second Elections	(807,671,764)
Administrative Expenses	(17,039,054)
Transfers to Other Funds and Departments	(832,745)
Market Value of Assets for Actuarial Valuation as of June 30, 2014	\$149,966,768,014

¹ Pension Payments shown above are net of the increase in Accrued DROP Liability from June 30, 2013 to June 30, 2014. The increase in Accrued DROP Liability reflects accumulated amounts for future single sum DROP benefits that have not been disbursed from the Trust as of June 30, 2014. Measured actuarial liabilities at that date include the full present value of the projected future single sum disbursements from the Trust for the DROP.

Table 2-3
Florida Retirement System
Summary of Market Value of Assets for Actuarial Valuation
 (by Asset Category)
 (\$ in Thousands)

Asset Category	Market Value as of July 1,	
	2013	2014
1. Common Stock	\$92,223,803	\$106,406,252
2. Bonds	\$32,629,902	\$34,021,409
3. Real Estate	\$9,040,776	\$9,910,420
4. Temporary Investments	\$3,548,406	\$4,627,994
5. Cash - Including Certificates of Deposit	\$2,280,387	\$1,728,643
6. Receivables	\$3,518,622	\$5,481,246
7. Miscellaneous	\$424	\$473
8. Reverse Purchase Agreements	\$750,000	\$1,150,000
Gross Assets	\$143,992,320	\$163,326,437
9. Current Liabilities and Reserves	(\$10,964,364)	(\$13,359,669)
Market Value of Assets for Actuarial Valuation	\$133,027,956	\$149,966,768

Table 2-4
Florida Retirement System
Development of 2014 Actuarial Value of Assets

1. FRS Market Value of Assets on June 30, 2013 for Actuarial Valuation	\$133,027,955,768
2. Actuarial Value of Assets on July 1, 2013	\$131,680,615,103
3. 2013/2014 Net Cash Flow (Contributions less Benefits and Expenses)	(\$5,873,457,333)
4. Preliminary Actuarial Value of Assets, July 1, 2014, if Items 2 and 3 earned an assumed rate of 7.75%	\$135,784,808,968
5. Market Value of Assets, June 30, 2014 for Actuarial Valuation	\$149,966,768,014
6. Net Assets (Actuarial Value Basis) Available for Benefits Prior to Application of 80%/20% Corridor $4 + ((5 - 4) \times 20\%)$	\$138,621,200,784
7. 120% of Market Value [120% (5)]	\$179,960,121,617
8. 80% of Market Value [80% (5)]	\$119,973,414,411
9. Actuarial Value of Assets on July 1, 2014 Lesser of (6) and (7), but not less than (8)	\$138,621,200,784
10. Ratio of July 1, 2014 Actuarial Value of Assets to Market Value on June 30, 2014 for Actuarial Valuation	<u>92.43%</u>

Table 2-5
Florida Retirement System
Development of Actuarial Value of Assets
by Membership Class
(\$ in Thousands)

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class --		Local	Senior Management	DROP	Total System
1. Allocated Actuarial Value of Assets by Class, July 1, 2013	\$89,715,380	\$21,175,542	\$70,672	\$663,240	\$52,623	\$286,418	\$2,023,314	\$17,693,426	\$131,680,615
2. Total Contribution for the Plan Year	1,772,282	753,728	1,325	34,437	2,575	16,659	106,185	285,735	2,972,926
3. Benefit Payments and other Disbursements	(6,139,192)	(1,251,876)	(6,677)	(69,007)	(7,143)	(42,901)	(176,489)	(1,153,098)	(8,846,383)
4. Allocated Investment Earnings on AVA Basis	8,712,164	2,082,837	6,768	64,293	5,011	27,201	197,884	1,717,884	12,814,043
5. Unadjusted Actuarial Value of Assets (1) + (2) + (3) + (4)	94,060,635	22,760,231	72,088	692,963	53,066	287,377	2,150,894	18,543,947	138,621,201
6. Net Reallocation (see Table 2-6)	1,241,808	430,118	286	28,280	921	5,986	53,900	(1,761,299)	0
7. Allocated Actuarial Value of Assets by Class, July 1, 2014: (5) + (6)	\$95,302,443	\$23,190,349	\$72,374	\$721,243	\$53,987	\$293,363	\$2,204,794	\$16,782,648	\$138,621,201

Table 2-6
Florida Retirement System
Reallocation of Actuarial Value of Assets
by Membership Class
(\$ in Thousands)

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class --			Senior Management	DROP	Total System
				Judicial	Leg-Atty-Cab	Local			
1. Actuarial Accrued Liability, July 1, 2014								\$19,386,218	\$160,130,502
2. Unadjusted Actuarial Value of Assets, July 1, 2014 prior to reallocation								18,543,947	138,621,201
3. Unfunded Actuarial Liability (UAL): (1) - (2)								\$842,271	\$21,509,301
4. Aggregate Funded Percentage: (2) / (1)								95.66%	86.57%
5. DROP Assets Required to Meet Aggregate Funded Percentage: (1) x (4) [Total System] - (2)								(\$1,761,299)	
6. Proportion of DROP Liability by Class	0.7051	0.2442	0.0002	0.0161	0.0005	0.0034	0.0306	N/A	1.0000
7. Assets to be Reallocated	\$1,241,808	\$430,118	\$286	\$28,280	\$921	\$5,986	\$53,900	(\$1,761,299)	0

Table 2-7
Florida Retirement System

A. Rates of Return on Investments¹

Asset Bases	Rates of Return		
	2011/2012	2012/2013	2013/2014
Market Value	0.21%	13.63%	17.54%
Actuarial Value	6.74%	8.02%	9.95%

¹ Assumes net cash flow occurs mid-year

B. Allocation of Assets at Market Value

Asset Category	July 1, 2013	July 1, 2014
Stocks	69.33%	70.95%
Bonds	24.53%	22.69%
Real Estate	6.80%	6.61%
Temporary Investments	2.67%	3.09%
Cash	1.71%	1.15%
Other (includes receivables & payables)	-5.04%	-4.49%
	100%	100%

3. Liabilities

In the previous section, an actuarial valuation was compared to an inventory process, and an analysis was given of the inventory of assets of the FRS as of the valuation date, July 1, 2014. In this section, the discussion will focus on the commitments of the FRS, which will be referred to as its Actuarial Liabilities. In later sections, other liabilities are presented (Section 5) based on accounting principles of the Financial Account Standards Board (FASB) and Governmental Accounting Standards Board (GASB). It is important to note that the accounting liabilities are presented for disclosure and comparison purposes and that the Actuarial Liabilities in this section are used for determining the FRS actuarially calculated contributions.

A fundamental principle in financing a retirement program is that the projected cost of retirement benefits should be accrued during the period in which service is performed, rather than during the post-retirement period of benefit distribution. There are several methods that can be used in making such an allocation.

As part of the actuarial rate calculation methodology approved by the Assumptions Conference, the System's Normal Cost and Actuarial Liability are calculated using the Ultimate Entry Age (Ultimate EAN) actuarial cost allocation method. The cost method does not affect the calculation of overall projected System benefits (Present Value of Benefits), but it does affect the allocation of those benefits over a member's projected working career between past (Actuarial Liability), current year (Normal Cost) and all future year projected (Present Value of Future Normal Costs) service. The Present Value of Benefits is equal to the sum of the Actuarial Liability and the Present Value of Future Normal Costs.

For a system such as FRS with two membership tiers, Ultimate EAN calculates the Normal Cost allocation for individual members as if each member participates in the tier available to new hires for his or her full working career. For members in Tier I, this means the Normal Cost under the Ultimate EAN method will be based on the benefit plan provisions of Tier II. Because Tier II results in lower expected benefit payments than under Tier I, the calculated Normal Cost rate is lower than it would be if the plan provisions specific to the member's actual tier were used.

The actuarial cost allocation method does not affect the calculation of the Present Value of Benefits, which is based on the plan provisions specific to each member's enrollment date. The Actuarial Liability is the Present Value of Benefits minus the Present Value of Future Normal Costs. Thus, the Ultimate EAN method used in this valuation leads to a lower Normal Cost and a higher Actuarial Liability for Tier I members than would be calculated under a method that based the Normal Costs of Tier I members on the Tier I benefit plan provisions.

The difference between the Actuarial Liability and the Actuarial Value of Assets accumulated as of the valuation date is referred to as the Unfunded Actuarial Liability (UAL). (If the difference is negative, the excess of the funds accumulated over the liabilities may be referred to as the surplus.) The UAL is amortized in accordance with the schedules in Section 4 of this report.

Please note that the recently issued Statements 67 & 68 of the Governmental Accounting Standards Board (GASB) do not permit the use of the Ultimate EAN cost allocation method for accounting calculations. The Ultimate EAN method and the GASB 67 & 68 mandated variation of EAN ("Individual" EAN) will produce different Actuarial Liability and Normal Cost results. Determining which EAN methodology (Ultimate or Individual) generates higher current contribution rates depends on the period used to amortize the Unfunded Actuarial Liability. For FRS, the amortization periods used in the methodology approved by the Assumptions Conference will lead to the Ultimate EAN methodology having lower current calculated contribution rates than the Individual EAN methodology. As the number of Tier I active participants decreases, the Individual EAN

Normal Cost would trend downward toward the Tier II Normal Cost. When all Tier I active participants have left the workforce the contribution results of the two variations should converge.

The UAL will grow with interest and Normal Cost, while contributions will reduce it.

Benefit improvements, actuarial gains and losses (variations in investment results and demographic changes different from assumption), and changes in actuarial procedures and methodologies will also have an effect on the total Actuarial Liability and on the UAL.

After the amount of the UAL has been determined, as part of the rate calculation methodology approved by the Assumptions Conference, the actuarially calculated contribution rates include a component for the amortization of the UAL. A schedule of contributions is established to amortize the UAL. In Section 4 of the report, we discuss the contribution schedules in detail.

Table 3-1 contains a breakdown of the Actuarial Liabilities and Unfunded Actuarial Liabilities in the FRS for the 2013 valuation and the 2014 valuation. In Table 3-2, the 2014 liabilities are shown for each membership class.

Legislation enacted in 2001 “walls off,” for 25 years, the actuarial gains arising from former Defined Benefit Plan participants electing the Investment Plan option. The “walled off” amount is called the contingent liability. The Actuarial Liabilities generally do not include the contingent liability. However, surplus, if any, used for contribution rate reductions is net of the contingent liability. Table 3-3 shows the contingent liability and the number of current active participants, by class, who elected to transfer from the Defined Benefit Plan to the Investment Plan during the original 2002-2003 election periods available to members who were active when the IP became effective.

Table 3-1
Florida Retirement System
Actuarial Liabilities – Prior and Revised Assumptions
(\$ in Thousands)

	July 1, 2013 Valuation	July 1, 2014 Prior Assumptions	July 1, 2014 Revised Assumptions
1. Actuarial Liabilities for:			
(a) Active Members	\$52,626,743	\$53,293,421	\$53,651,424
(b) Retired, Disabled and Beneficiary Members	74,843,720	80,492,091	81,702,688
(c) Terminated Vested Members	5,234,608	5,320,869	5,390,172
(d) DROP	20,597,701	19,154,629	19,386,218
2. Total Actuarial Liability	\$153,302,772	\$158,261,010	\$160,130,502
3. Actuarial Value of Assets	\$131,680,615	\$138,621,201	\$138,621,201
4. Unfunded Actuarial Liability / (Surplus)	\$21,622,157	\$19,639,809	\$21,509,301
5. Investment Plan Contingent Liability ¹	\$233,810	\$232,394	\$232,394
6. Surplus Available for Rate Reduction	\$0	\$0	\$0

¹ See Table 3-3.

Table 3-2
Florida Retirement System
Actuarial Liabilities by Membership Class – Revised Assumptions
July 1, 2014
(\$ in Thousands)

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class --			Senior Management	DROP	Total System
				Judicial	Leg-Atty-Cab	Local			
1. Present Value of Benefits for:									
a. Active Members	\$47,806,050	\$17,751,568	\$15,889	\$538,866	\$28,256	\$189,262	\$1,811,930	\$0	\$68,141,821
b. Retired, Disabled and Beneficiary Members	62,949,814	15,443,355	73,713	664,375	71,697	415,601	2,084,133	19,386,218	101,088,906
c. Terminated Vested Members	<u>4,447,472</u>	<u>720,788</u>	<u>1,256</u>	<u>19,593</u>	<u>9,562</u>	<u>21,358</u>	<u>170,143</u>	<u>0</u>	<u>5,390,172</u>
d. Total Present Value of Benefits (a)+(b)+(c)	115,203,336	33,915,711	90,858	1,222,834	109,515	626,221	4,066,206	19,386,218	174,620,899
2. Present Value of Future Normal Cost (Actives):	\$8,952,475	\$5,149,398	\$1,624	\$102,693	\$3,853	\$28,538	\$251,816	\$0	\$14,490,397
3. Actuarial Liabilities for:									
a. Active Members (1a) - (2)	\$38,853,575	\$12,602,170	\$14,265	\$436,173	\$24,403	\$160,724	\$1,560,114	\$0	\$53,651,424
b. Retired, Disabled and Beneficiary Members (1b)	62,949,814	15,443,355	73,713	664,375	71,697	415,601	2,084,133	19,386,218	101,088,906
c. Terminated Vested Members (1c)	<u>4,447,472</u>	<u>720,788</u>	<u>1,256</u>	<u>19,593</u>	<u>9,562</u>	<u>21,358</u>	<u>170,143</u>	<u>0</u>	<u>5,390,172</u>
d. Total Actuarial Liability (a)+(b)+(c)	\$106,250,861	\$28,766,313	\$89,234	\$1,120,141	\$105,662	\$597,683	\$3,814,390	\$19,386,218	\$160,130,502
4. Actuarial Value of Assets	<u>\$95,302,443</u>	<u>\$23,190,349</u>	<u>\$72,374</u>	<u>\$721,243</u>	<u>\$53,987</u>	<u>\$293,363</u>	<u>\$2,204,794</u>	<u>\$16,782,648</u>	<u>\$138,621,201</u>
5. Unfunded Actuarial Liability / (Surplus)	\$10,948,418	\$5,575,964	\$16,860	\$398,898	\$51,675	\$304,320	\$1,609,596	\$2,603,570 ¹	\$21,509,301
6. Present Value of Future Pay	\$157,185,819	\$36,206,201	\$25,393	\$735,523	\$39,538	\$252,029	\$3,649,298	\$0	\$198,093,801

¹ This is a bookkeeping item. DROP liabilities include the total present value of benefits to all members currently in DROP. When a member leaves DROP, their liability is transferred to the class of membership from which they retired.

Table 3-3
Investment Plan
Contingent Actuarial Liabilities
July 1, 2014
(\$ in Thousands)

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class -- Judicial	Leg-Atty-Cab	Local	Senior Management	DROP	Total System
<u>As of July 1, 2013</u>									
Contingent Liability	\$214,547	\$10,253	(\$25)	(\$705)	\$173	\$110	\$9,457	NA	\$233,810
Participant Counts	7,118	226	1	5	4	10	169	NA	7,533
<u>As of July 1, 2014</u>									
Contingent Liability ^{1 & 2}	\$213,410	\$9,679	(\$27)	(\$608)	\$187	\$106	\$9,647	NA	\$232,394
Participant Counts	6,571	198	1	4	4	9	160	NA	6,947

¹ The contingent liability is not included in the actuarial liabilities of FRS and is removed from the surplus.

² The contingent liability as of July 1, 2014 is calculated as the July 1, 2003 contingent liability increased by eleven years of interest, adjusted for the proportion of original transfers remaining in the Investment Plan.

4. Contributions

Differences between the Actuarial Liabilities and the assets can be made up through (1) future contributions in excess of the Normal Costs to amortize the shortfall and/or (2) the excess of actual investment returns over assumed returns. An actuarial valuation sets out a schedule of future contributions that will deal with this deficiency in a systematic manner if future experience follows the assumptions. By contrast, in prior years when the FRS had an actuarial surplus, legislated contribution rates were generally below the Normal Cost. In this section we develop and present the FRS contribution rates based on the July 1, 2014 membership data to be effective for the Plan Year beginning July 1, 2015.

First, we present a description of the actuarial method used to determine the actuarially calculated FRS contributions for the 2015-2016 plan year. This is followed by a series of tables presenting the details of our calculations.

A. Funding Methods

The actuarial cost method used to determine the pattern of future contributions is called the Ultimate Entry Age Normal (Ultimate EAN) actuarial cost method. Under this method (as is the case for most actuarial cost methods), the contributions required are based on two elements:

- The Normal Cost
- The amortization payment to liquidate the Unfunded Actuarial Liability (UAL) or surplus.

These elements are described in more detail below.

1. Normal Cost

Under the Ultimate EAN method, the Normal Cost rate is that level percentage of pay which would fully fund a member's benefit at retirement, if paid from the year of entry (i.e., "entry age") to the year of retirement if future experience were to exactly match the actuarial assumptions. For a system such as FRS, with two membership tiers, Ultimate EAN determines the Normal Cost allocation for individual members as if each member participates in the tier available to new hires for his or her full working career. For members in Tier I, this means the Normal Cost under the Ultimate EAN method will be based on the benefit plan provisions of Tier II. Because Tier II results in lower expected benefits than under Tier I, the calculated Normal Cost rate is lower than it would be if the plan provisions specific to the member's actual tier were used. This lower Normal Cost rate leads to a higher Actuarial Liability, all else equal, as is discussed below.

We have determined the Normal Cost rates for the FRS separately by membership class and benefit. These are summarized in Table 4-1.

2. Unfunded Actuarial Liability (UAL)

The Actuarial Liability is the difference between the Actuarial Present Value of Projected Benefits (PVB) and the Present Value of Future Normal Costs (PVFNC). Because Ultimate EAN produces lower Normal Costs than would be determined if each individual's applicable benefit plan provisions were used, the Actuarial Liability is higher than it would be if those plan provisions were used.

The term "fully funded" is often applied to a system where contributions at the Normal Cost rate are completely adequate to fund the projected future benefits of all existing members if future experience follows the assumptions. Currently, most systems are not fully funded, either because payments for benefit improvements in the past have not been completely made, because actuarial deficiencies have occurred due

to experience that has not been as favorable as anticipated, or both. Under these circumstances, a UAL exists. For the FRS, this is the sixth consecutive year that a UAL exists, or that the Plan does not have a surplus. Prior to that time, the Actuarial Value of Assets exceeded the Actuarial Liability for the valuations from 1998 through 2008 and no UAL existed in those valuations.

Tables 4-2 through 4-10 show how the UAL contribution rates were derived for the FRS. Table 4-2 shows the calculations on a composite basis, while Tables 4-3 through 4-10 show the calculations for each individual membership class and sub-class and the DROP.

As part of the funding policy selected by the Florida Legislature, the actuarially calculated contribution rate is based on a “layered” approach that includes closed 30-year charge and credit bases for the amortization of the UAL. Starting in the 1998 actuarial valuation, the Legislature required all UAL bases in existence at that time to be considered fully amortized, since the Plan was in a surplus position. Since then, bases were created whenever there were changes in plan provisions or changes in assumptions pursuant to an experience study. Now that the UAL has reemerged, all experience gains and losses are also subject to amortization. In this valuation, we show the amortization of each plan/assumption change since 1998 and experience gains/losses starting in 2009. The plan changes include those attributable to House Bill 479 in 2010 and Senate Bill 2100 in 2011.

For a given base of UAL amortization, annual amortization payments are calculated as increasing by 3.25% per year (“level percent of payroll amortization”), consistent with the valuation’s long-term annual payroll growth assumption. If future experience follows the actuarial assumptions, this should result in amortization payments that keep pace with the assumed growth in overall compensation. Please note that with the current amortization period of 30 years, amortization payments will not be large enough to cover interest on the UAL for several years, which means that as a dollar amount the UAL is expected to grow for a period of time. Under current assumptions, the expected UAL for a newly established amortization base will grow until the amortization period is down to 18 years. After that time, the amortization payments will be large enough that the amortization payments will cover both interest and principal, and the UAL as a dollar amount will be projected to decrease in each subsequent year. After approximately 20 years, the unamortized balance for the base will be approximately at the same level as the initial amount of the base.

The benefit changes legislated by Senate Bill 2100 reduced the Normal Cost, PVFNC and the PVB for current and future active members. All members initially enrolled before July 1, 2011 (Tier I) will continue to earn benefits at levels greater than those annually earned by members initially enrolled on or after July 1, 2011 (Tier II). While the base benefits are higher for Tier I members than Tier II members, the projected benefit levels for Tier I members are decreased from what they would have been absent Senate Bill 2100, due to the determination of the annual COLA percentage being based on the prorated pre-July 2011 service over total service.

As noted on the prior page, the Actuarial Liability is defined as PVB less PVFNC. For some membership classes the percentage decrease in the PVFNC was larger than the percentage decrease in the PVB, resulting in an increase in an Actuarial Liability. For the remaining membership classes, the percentage decrease in the PVFNC was smaller than the percentage decrease in the PVB, resulting in a decrease in the Actuarial Liability. The variation is due to the different demographics, benefit multipliers and unique interrelation of the modified benefit provisions of each membership class. The PVB will be lower in future valuations than it would have been had Senate Bill 2100 not been adopted.

B. Employer Contribution Rates

Table 4-11 presents the actuarially calculated employer contribution rates.

The reader should note that the payroll base for UAL Cost contributions is approximately \$4.8 billion larger than the payroll base for Normal Cost contributions. This is because Florida Statute requires the employers of certain defined contribution program participants to make UAL contributions based on their payroll. Thus, the total contribution shown is an arithmetic sum, but the actual contribution percentages will be determined on a blended rate basis so that employers pay the same contribution rate for Defined Benefit plan members and IP members.

Table 4-12 compares the legislated employer contribution rates to those calculated in the actuarial valuations for the prior plan years. The legislated rates for the 2013-2014 and 2014-2015 plan years were the same as the actuarially calculated rates in the 2012 and 2013 actuarial valuations, respectively. In the previous three years, the legislated rates were less than the actuarially calculated rates.

Table 4-1
Florida Retirement System
Normal Cost Rates by Decrement
July 1, 2014

	Regular	Special Risk	Special Risk Administrative	----- Elected Officers' Class ----- Judicial	Leg-Atty-Cab	Local	Senior Management	DROP	Total
1. Vested Benefits and Early Retirement	1.18%	1.73%	1.45%	1.41%	3.29%	2.69%	1.20%	NA	1.26%
2. Regular Retirement	3.51%	10.83%	3.51%	11.57%	4.71%	7.34%	4.65%	NA	4.66%
3. Non-Duty Death	0.17%	0.51%	0.19%	0.66%	0.31%	0.39%	0.23%	NA	0.23%
4. Line of Duty Death	0.18%	0.38%	0.29%	0.33%	0.28%	0.31%	0.21%	NA	0.21%
5. Non-Duty Disability	0.11%	0.14%	0.09%	0.29%	0.14%	0.16%	0.13%	NA	0.12%
6. Line of Duty Disability	0.01%	0.28%	0.01%	0.02%	0.01%	0.01%	0.01%	NA	0.05%
7. Refund of Employee Contributions	<u>0.57%</u>	<u>0.29%</u>	<u>0.63%</u>	<u>0.09%</u>	<u>0.54%</u>	<u>0.36%</u>	<u>0.61%</u>	<u>NA</u>	<u>0.53%</u>
8. Total Normal Cost	5.73%	14.16%	6.17%	14.37%	9.28%	11.26%	7.04%	NA	7.06%
9. Expected Employee Contributions ¹	<u>-2.95%</u>	<u>-2.99%</u>	<u>-2.94%</u>	<u>-2.94%</u>	<u>-2.88%</u>	<u>-2.89%</u>	<u>-2.93%</u>	<u>NA</u>	<u>-2.96%</u>
10. Employer Normal Cost	2.78%	11.17%	3.23%	11.43%	6.40%	8.37%	4.11%	4.10% ²	4.10%

¹ The actual rate of employee contribution is 3.00%. The rates shown are based on pay rates as of the date of the valuation and reflect actuarial methodology which includes the timing of salary increases, expected turnover and other decrements.

² DROP Normal Cost is set equivalent to System average Normal Cost.

Table 4-2
Florida Retirement System
Unfunded Actuarial Liability (UAL) Bases
July 1, 2014
Composite System
(\$ in Thousands)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2014-2015	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2015-2016
June 30, 1999	Assumption Change from 1998 Experience Study	16	\$ (391,130)	11.9758	\$ (32,660)	15	\$ (387,166)	10.9712	\$ (35,289)
June 30, 2000	Special Risk 65% In-Line-Of-Duty Disability (2000)	17	(2,535)	12.5224	(202)	16	(2,519)	11.4866	(219)
June 30, 2000	Special Risk-Regular 12% Pre-2000 Retired Benefit Increase (2000)	17	322,940	12.5224	25,789	16	320,888	11.4866	27,936
June 30, 2004	Assumption Change from 2003 Experience Study	21	(3,497,383)	14.5250	(240,784)	20	(3,515,109)	13.3459	(263,385)
June 30, 2009	Assumption Change from 2008 Experience Study	26	6,742,885	16.6604	404,726	25	6,838,794	15.2734	447,759
June 30, 2009	2008-2009 Experience (Gains) / Losses	26	21,160,090	16.6604	1,270,084	25	21,461,067	15.2734	1,405,130
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	26	(6,189,513)	16.6604	(371,511)	25	(6,277,552)	15.2734	(411,013)
June 30, 2009	2009-2010 Plan Changes (HB 479)	26	(1,279,575)	16.6604	(76,803)	25	(1,297,775)	15.2734	(84,970)
June 30, 2010	2009-2010 Experience (Gains) / Losses	27	1,141,038	17.0439	66,947	26	1,158,867	15.6129	74,225
June 30, 2010	2010-2011 Plan Changes (SB 2100)	27	(1,249,846)	17.0439	(73,331)	26	(1,269,375)	15.6129	(81,303)
June 30, 2011	2010-2011 Experience (Gains) / Losses	28	2,763,236	17.4141	158,678	27	2,809,988	15.9386	176,301
June 30, 2012	2011-2012 Experience (Gains) / Losses	29	(110,453)	17.7714	(6,215)	28	(112,454)	16.2509	(6,920)
June 30, 2013	2012-2013 Experience (Gains) / Losses	30	2,765,537	18.1163	152,655	29	2,818,714	16.5505	170,310
June 30, 2014	Assumption/Method Change from 2013 Experience Study		1,869,492			30	2,012,508	16.8379	119,523
June 30, 2014	2013-2014 Experience (Gains) / Losses		<u>(2,535,481)</u>			30	<u>(2,729,446)</u>	16.8379	<u>(162,102)</u>
UAL as of Valuation Date			\$ 21,509,301		\$ 1,277,372		\$ 21,829,431	Total:	\$ 1,375,983
Projected FY 2015-2016 UAL Payroll:									\$ 28,126,579
									NC Rate: 4.10%
									UAL Contribution Rate: 4.89%
									NCR + UALR: 8.99%

Table 4-3
Florida Retirement System
Unfunded Actuarial Liability (UAL) Bases
July 1, 2014
Regular Class
 (\$ in Thousands)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2014-2015	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2015-2016
June 30, 1999	Assumption Change from 1998 Experience Study	16	\$ (297,961)	11.9758	\$ (24,880)	15	\$ (294,941)	10.9712	\$ (26,883)
June 30, 2004	Assumption Change from 2003 Experience Study	21	(3,089,757)	14.5250	(212,720)	20	(3,105,417)	13.3459	(232,687)
June 30, 2009	Assumption Change from 2008 Experience Study	26	5,484,953	16.6604	329,221	25	5,562,970	15.2734	364,227
June 30, 2009	2008-2009 Experience (Gains) / Losses	26	33,694,911	16.6604	2,022,457	25	34,174,180	15.2734	2,237,502
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	26	(26,430,602)	16.6604	(1,586,434)	25	(26,806,545)	15.2734	(1,755,117)
June 30, 2009	2009-2010 Plan Changes (HB 479)	26	(1,005,955)	16.6604	(60,380)	25	(1,020,264)	15.2734	(66,800)
June 30, 2010	2009-2010 Experience (Gains) / Losses	27	1,271,973	17.0439	74,629	26	1,291,848	15.6129	82,742
June 30, 2010	2010-2011 Plan Changes (SB 2100)	27	(1,614,726)	17.0439	(94,739)	26	(1,639,956)	15.6129	(105,038)
June 30, 2011	2010-2011 Experience (Gains) / Losses	28	1,366,873	17.4141	78,492	27	1,389,999	15.9386	87,210
June 30, 2012	2011-2012 Experience (Gains) / Losses	29	490,062	17.7714	27,576	28	498,941	16.2509	30,702
June 30, 2013	2012-2013 Experience (Gains) / Losses	30	1,679,939	18.1163	<u>92,731</u>	29	1,712,242	16.5505	103,456
June 30, 2014	Assumption/Method Change from 2013 Experience Study		547,369			30	589,243	16.8379	34,995
June 30, 2014	2013-2014 Experience (Gains) / Losses		<u>(1,148,660)</u>			30	<u>(1,236,533)</u>	16.8379	<u>(73,438)</u>
UAL as of Valuation Date			\$ 10,948,418		\$ 645,953		\$ 11,115,766	Total:	\$ 680,869
Projected FY 2015-2016 UAL Payroll:									\$ 21,614,100
NC Rate:									2.78%
UAL Contribution Rate:									<u>3.15%</u>
NCR + UALR:									5.93%

Table 4-4
Florida Retirement System
Unfunded Actuarial Liability (UAL) Bases
July 1, 2014
Special Risk Class
(\$ in Thousands)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2014-2015	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2015-2016
June 30, 1999	Assumption Change from 1998 Experience Study	16	\$ (90,210)	11.9758	\$ (7,533)	15	\$ (89,295)	10.9712	\$ (8,139)
June 30, 2000	Special Risk 65% In-Line-Of-Duty Disability (2000)	17	(2,586)	12.5224	(207)	16	(2,570)	11.4866	(224)
June 30, 2000	Special Risk-Regular 12% Pre-2000 Retired Benefit Increase (2000)	17	322,940	12.5224	25,789	16	320,888	11.4866	27,936
June 30, 2004	Assumption Change from 2003 Experience Study	21	(631,210)	14.5250	(43,457)	20	(634,409)	13.3459	(47,536)
June 30, 2009	Assumption Change from 2008 Experience Study	26	538,739	16.6604	32,337	25	546,402	15.2734	35,775
June 30, 2009	2008-2009 Experience (Gains) / Losses	26	7,423,692	16.6604	445,590	25	7,529,285	15.2734	492,968
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	26	(2,463,381)	16.6604	(147,859)	25	(2,498,420)	15.2734	(163,580)
June 30, 2009	2009-2010 Plan Changes (HB 479)	26	(187,887)	16.6604	(11,277)	25	(190,559)	15.2734	(12,477)
June 30, 2010	2009-2010 Experience (Gains) / Losses	27	(404,117)	17.0439	(23,710)	26	(410,432)	15.6129	(26,288)
June 30, 2010	2010-2011 Plan Changes (SB 2100)	27	451,570	17.0439	26,495	26	458,626	15.6129	29,375
June 30, 2011	2010-2011 Experience (Gains) / Losses	28	254,733	17.4141	14,628	27	259,042	15.9386	16,253
June 30, 2012	2011-2012 Experience (Gains) / Losses	29	(546,481)	17.7714	(30,751)	28	(556,382)	16.2509	(34,237)
June 30, 2013	2012-2013 Experience (Gains) / Losses	30	480,827	18.1163	<u>26,541</u>	29	490,073	16.5505	29,611
June 30, 2014	Assumption/Method Change from 2013 Experience Study		1,233,860			30	1,328,250	16.8379	78,885
June 30, 2014	2013-2014 Experience (Gains) / Losses		<u>(804,525)</u>			30	<u>(866,071)</u>	16.8379	<u>(51,436)</u>
UAL as of Valuation Date			\$ 5,575,964		\$ 306,586		\$ 5,684,429	Total:	\$ 366,886
Projected FY 2015-2016 UAL Payroll:									\$ 3,435,022
NC Rate:									11.17%
UAL Contribution Rate:									<u>10.68%</u>
NCR + UALR:									21.85%

Table 4-5
Florida Retirement System
Unfunded Actuarial Liability (UAL) Bases
July 1, 2014
Special Risk Administrative Support Class
(\$ in Thousands)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)	
		Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2014-2015	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2015-2016	
Date Established	Description									
June 30, 1999	Assumption Change from 1998 Experience Study	16	\$ (324)	11.9758	\$ (27)	15	\$ (321)	10.9712	\$ (29)	
June 30, 2000	Special Risk 65% In-Line-Of-Duty Disability (2000)	17	51	12.5224	4	16	51	11.4866	4	
June 30, 2004	Assumption Change from 2003 Experience Study	21	10,538	14.5250	725	20	10,591	13.3459	794	
June 30, 2009	Assumption Change from 2008 Experience Study	26	1,296	16.6604	78	25	1,314	15.2734	86	
June 30, 2009	2008-2009 Experience (Gains) / Losses	26	19,481	16.6604	1,169	25	19,758	15.2734	1,294	
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	26	(21,620)	16.6604	(1,298)	25	(21,927)	15.2734	(1,436)	
June 30, 2009	2009-2010 Plan Changes (HB 479)	26	0	16.6604	0	25	0	15.2734	0	
June 30, 2010	2009-2010 Experience (Gains) / Losses	27	1,163	17.0439	68	26	1,181	15.6129	76	
June 30, 2010	2010-2011 Plan Changes (SB 2100)	27	(530)	17.0439	(31)	26	(539)	15.6129	(34)	
June 30, 2011	2010-2011 Experience (Gains) / Losses	28	2,785	17.4141	160	27	2,832	15.9386	178	
June 30, 2012	2011-2012 Experience (Gains) / Losses	29	575	17.7714	32	28	585	16.2509	36	
June 30, 2013	2012-2013 Experience (Gains) / Losses	30	2,737	18.1163	<u>151</u>	29	2,790	16.5505	169	
June 30, 2014	Assumption/Method Change from 2013 Experience Study		(5,329)			30	(5,737)	16.8379	(341)	
June 30, 2014	2013-2014 Experience (Gains) / Losses		<u>6,038</u>			30	<u>6,500</u>	16.8379	<u>386</u>	
UAL as of Valuation Date		\$	16,860		\$	1,032	\$	17,079	Total: \$	1,182
Projected FY 2015-2016 UAL Payroll: \$									\$	3,329
NC Rate:										3.23%
UAL Contribution Rate:										<u>35.49%</u>
NCR + UALR:										<u>38.72%</u>

Table 4-6
Florida Retirement System
Unfunded Actuarial Liability (UAL) Bases
July 1, 2014
Elected Officers' Class: Judicial Subclass
 (\$ in Thousands)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2014-2015	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2015-2016
June 30, 1999	Assumption Change from 1998 Experience Study	16	\$ 42	11.9758	\$ 3	15	\$ 41	10.9712	\$ 4
June 30, 2004	Assumption Change from 2003 Experience Study	21	27,844	14.5250	1,917	20	27,985	13.3459	2,097
June 30, 2009	Assumption Change from 2008 Experience Study	26	19,801	16.6604	1,189	25	20,083	15.2734	1,315
June 30, 2009	2008-2009 Experience (Gains) / Losses	26	500,919	16.6604	30,066	25	508,044	15.2734	33,263
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	26	(271,730)	16.6604	(16,310)	25	(275,595)	15.2734	(18,044)
June 30, 2009	2009-2010 Plan Changes (HB 479)	26	(25,025)	16.6604	(1,502)	25	(25,381)	15.2734	(1,662)
June 30, 2010	2009-2010 Experience (Gains) / Losses	27	(21,702)	17.0439	(1,273)	26	(22,041)	15.6129	(1,412)
June 30, 2010	2010-2011 Plan Changes (SB 2100)	27	3,120	17.0439	183	26	3,168	15.6129	203
June 30, 2011	2010-2011 Experience (Gains) / Losses	28	82,333	17.4141	4,728	27	83,726	15.9386	5,253
June 30, 2012	2011-2012 Experience (Gains) / Losses	29	6,427	17.7714	362	28	6,544	16.2509	403
June 30, 2013	2012-2013 Experience (Gains) / Losses	30	104,011	18.1163	<u>5,741</u>	29	106,011	16.5505	6,405
June 30, 2014	Assumption/Method Change from 2013 Experience Study		22,408			30	24,122	16.8379	1,433
June 30, 2014	2013-2014 Experience (Gains) / Losses		<u>(49,550)</u>			30	<u>(53,341)</u>	16.8379	<u>(3,168)</u>
UAL as of Valuation Date			\$ 398,898		\$ 25,104		\$ 403,367	Total:	\$ 26,090
Projected FY 2015-2016 UAL Payroll:									\$ 106,744
NC Rate:									11.43%
UAL Contribution Rate:									<u>24.44%</u>
NCR + UALR:									35.87%

Table 4-7
Florida Retirement System
Unfunded Actuarial Liability (UAL) Bases
July 1, 2014
Elected Officers' Class: Legislature/Attorney/Cabinet Subclass
(\$ in Thousands)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2014-2015	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2015-2016
June 30, 1999	Assumption Change from 1998 Experience Study	16	\$ 2	11.9758	\$ 0	15	\$ 2	10.9712	\$ 0
June 30, 2004	Assumption Change from 2003 Experience Study	21	2,096	14.5250	144	20	2,107	13.3459	158
June 30, 2009	Assumption Change from 2008 Experience Study	26	1,987	16.6604	119	25	2,015	15.2734	132
June 30, 2009	2008-2009 Experience (Gains) / Losses	26	60,867	16.6604	3,653	25	61,732	15.2734	4,042
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	26	(34,809)	16.6604	(2,089)	25	(35,304)	15.2734	(2,312)
June 30, 2009	2009-2010 Plan Changes (HB 479)	26	(790)	16.6604	(47)	25	(801)	15.2734	(52)
June 30, 2010	2009-2010 Experience (Gains) / Losses	27	2,825	17.0439	166	26	2,870	15.6129	184
June 30, 2010	2010-2011 Plan Changes (SB 2100)	27	128	17.0439	8	26	130	15.6129	8
June 30, 2011	2010-2011 Experience (Gains) / Losses	28	8,299	17.4141	477	27	8,439	15.9386	529
June 30, 2012	2011-2012 Experience (Gains) / Losses	29	(3,876)	17.7714	(218)	28	(3,946)	16.2509	(243)
June 30, 2013	2012-2013 Experience (Gains) / Losses	30	18,463	18.1163	<u>1,019</u>	29	18,818	16.5505	1,137
June 30, 2014	Assumption/Method Change from 2013 Experience Study		(2,689)			30	(2,895)	16.8379	(172)
June 30, 2014	2013-2014 Experience (Gains) / Losses		<u>(829)</u>			30	<u>(892)</u>	16.8379	<u>(53)</u>
UAL as of Valuation Date			\$ 51,675		\$ 3,231		\$ 52,276	Total:	\$ 3,359
Projected FY 2015-2016 UAL Payroll:									\$ 7,012
NC Rate:									6.40%
UAL Contribution Rate:									<u>47.90%</u>
NCR + UALR:									54.30%

Table 4-8
Florida Retirement System
Unfunded Actuarial Liability (UAL) Bases
July 1, 2014
Elected Officers' Class: Local Subclass
(\$ in Thousands)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2014-2015	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2015-2016
June 30, 1999	Assumption Change from 1998 Experience Study	16	\$ 5	11.9758	\$ 0	15	\$ 5	10.9712	\$ 0
June 30, 2004	Assumption Change from 2003 Experience Study	21	35,244	14.5250	2,426	20	35,423	13.3459	2,654
June 30, 2009	Assumption Change from 2008 Experience Study	26	11,554	16.6604	693	25	11,718	15.2734	767
June 30, 2009	2008-2009 Experience (Gains) / Losses	26	237,153	16.6604	14,235	25	240,526	15.2734	15,748
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	26	(58,718)	16.6604	(3,524)	25	(59,553)	15.2734	(3,899)
June 30, 2009	2009-2010 Plan Changes (HB 479)	26	(7,168)	16.6604	(430)	25	(7,270)	15.2734	(476)
June 30, 2010	2009-2010 Experience (Gains) / Losses	27	2,068	17.0439	121	26	2,100	15.6129	135
June 30, 2010	2010-2011 Plan Changes (SB 2100)	27	295	17.0439	17	26	300	15.6129	19
June 30, 2011	2010-2011 Experience (Gains) / Losses	28	13,712	17.4141	787	27	13,944	15.9386	875
June 30, 2012	2011-2012 Experience (Gains) / Losses	29	(5,571)	17.7714	(313)	28	(5,672)	16.2509	(349)
June 30, 2013	2012-2013 Experience (Gains) / Losses	30	106,622	18.1163	<u>5,885</u>	29	108,672	16.5505	6,566
June 30, 2014	Assumption/Method Change from 2013 Experience Study		(21,377)			30	(23,012)	16.8379	(1,367)
June 30, 2014	2013-2014 Experience (Gains) / Losses		<u>(9,498)</u>			30	<u>(10,225)</u>	16.8379	<u>(607)</u>
UAL as of Valuation Date			\$ 304,320		\$ 19,898		\$ 306,955	Total:	\$ 20,066
Projected FY 2015-2016 UAL Payroll:									\$ 44,295
NC Rate:									8.37%
UAL Contribution Rate:									<u>45.30%</u>
NCR + UALR:									53.67%

Table 4-9
Florida Retirement System
Unfunded Actuarial Liability (UAL) Bases
July 1, 2014
Senior Management Service Class
(\$ in Thousands)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2014-2015	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2015-2016
June 30, 1999	Assumption Change from 1998 Experience Study	16	\$ (2,685)	11.9758	\$ (224)	15	\$ (2,657)	10.9712	\$ (242)
June 30, 2004	Assumption Change from 2003 Experience Study	21	216,486	14.5250	14,904	20	217,583	13.3459	16,303
June 30, 2009	Assumption Change from 2008 Experience Study	26	63,698	16.6604	3,823	25	64,604	15.2734	4,230
June 30, 2009	2008-2009 Experience (Gains) / Losses	26	1,240,607	16.6604	74,465	25	1,258,253	15.2734	82,382
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	26	(281,593)	16.6604	(16,902)	25	(285,598)	15.2734	(18,699)
June 30, 2009	2009-2010 Plan Changes (HB 479)	26	(52,749)	16.6604	(3,166)	25	(53,499)	15.2734	(3,503)
June 30, 2010	2009-2010 Experience (Gains) / Losses	27	34,239	17.0439	2,009	26	34,774	15.6129	2,227
June 30, 2010	2010-2011 Plan Changes (SB 2100)	27	(89,703)	17.0439	(5,263)	26	(91,104)	15.6129	(5,835)
June 30, 2011	2010-2011 Experience (Gains) / Losses	28	128,777	17.4141	7,395	27	130,956	15.9386	8,216
June 30, 2012	2011-2012 Experience (Gains) / Losses	29	65,822	17.7714	3,704	28	67,014	16.2509	4,124
June 30, 2013	2012-2013 Experience (Gains) / Losses	30	368,024	18.1163	<u>20,315</u>	29	375,100	16.5505	22,664
June 30, 2014	Assumption/Method Change from 2013 Experience Study		(136,339)			30	(146,769)	16.8379	(8,717)
June 30, 2014	2013-2014 Experience (Gains) / Losses		<u>55,012</u>			30	<u>59,220</u>	16.8379	<u>3,517</u>
UAL as of Valuation Date			\$ 1,609,596		\$ 101,059		\$ 1,627,877	Total:	\$ 106,668
Projected FY 2015-2016 UAL Payroll:									\$ 517,489
									NC Rate: 4.11%
									UAL Contribution Rate: <u>20.61%</u>
									NCR + UALR: <u>24.72%</u>

Table 4-10
Florida Retirement System
Unfunded Actuarial Liability (UAL) Bases
July 1, 2014
DROP
 (\$ in Thousands)

(a)	(b)	(c)	(d)	(e)	(f) = (d) / (e)	(g)	(h)	(i)	(j) = (h) / (i)
Date Established	Description	Remaining Payments as of Valuation Date	Balance as of Valuation Date	Amortization Factor	Amortization Payment for FY 2014-2015	Remaining Payments one year after Valuation Date	Balance One Year After Valuation Date	Amortization Factor	Amortization Payment for FY 2015-2016
June 30, 2004	Assumption Change from 2003 Experience Study	21	\$ (68,624)	14.5250	\$ (4,725)	20	\$ (68,972)	13.3459	\$ (5,168)
June 30, 2009	Assumption Change from 2008 Experience Study	26	620,857	16.6604	37,265	25	629,688	15.2734	41,228
June 30, 2009	2008-2009 Experience (Gains) / Losses	26	(22,017,539)	16.6604	(1,321,551)	25	(22,330,712)	15.2734	(1,462,069)
June 30, 2009	Unrecognized (Gains)/Losses while in Surplus	26	23,372,939	16.6604	1,402,905	25	23,705,391	15.2734	1,552,074
June 30, 2010	2009-2010 Experience (Gains) / Losses	27	254,589	17.0439	14,937	26	258,567	15.6129	16,561
June 30, 2011	2010-2011 Experience (Gains) / Losses	28	905,725	17.4141	52,011	27	921,049	15.9386	57,787
June 30, 2012	2011-2012 Experience (Gains) / Losses	29	(117,412)	17.7714	(6,607)	28	(119,539)	16.2509	(7,356)
June 30, 2013	2012-2013 Experience (Gains) / Losses	30	4,914	18.1163	271	29	5,009	16.5505	303
June 30, 2014	Assumption/Method Change from 2013 Experience Study		231,589			30	249,306	16.8379	14,806
June 30, 2014	2013-2014 Experience (Gains) / Losses		(583,469)			30	(628,104)	16.8379	(37,303)
UAL as of Valuation Date			\$ 2,603,570		\$ 174,508		\$ 2,621,683	Total:	\$ 170,863
Projected FY 2015-2016 UAL Payroll:									\$ 2,398,588
NC Rate:									4.10%
UAL Contribution Rate:									7.12%
NCR + UALR:									11.22%

Table 4-11
Florida Retirement System
Actuarially Calculated Employer Contribution Rates
July 1, 2014 Valuation for Fiscal Year Beginning July 1, 2015

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class --			Senior Management	Composite (excluding DROP)	DROP ¹	Composite (including DROP)
				Judicial	Leg-Atty-Cab	Local				
1. Employer Normal Cost	2.78%	11.17%	3.23%	11.43%	6.40%	8.37%	4.11%	4.10% ²	4.10%	4.10%
2. UAL Cost	3.15%	10.68%	35.49%	24.44%	47.90%	45.30%	20.61%	4.68%	7.12%	4.89%
3. Total Employer Cost [(1) + (2)]	5.93%	21.85%	38.72%	35.87%	54.30%	53.67%	24.72%	8.78%	11.22%	8.99%
4. UAL Cost Paid from Surplus	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5. Rate Reduction from Surplus	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6. Total Adjusted Employer Contribution for FRS Trust Fund [(3) + (4) + (5)]	5.93%	21.85%	38.72%	35.87%	54.30%	53.67%	24.72%	8.78%	11.22%	8.99%

¹ DROP rates are special charges to cover the assumed cost of DROP participants; they are not Normal Cost or UAL Cost in the traditional sense.
See Section G of Executive Summary for discussion of the DROP contribution rate.

² Due to the assumption and methodology changes implemented, this year the composite contribution rate is 0.57% less than last year's rate of 4.67%.

Table 4-12
Florida Retirement System
Actuarially Calculated vs. Legislated Defined Benefit Plan Contribution Rates (Before Blending) ^{1 & 2}

Plan Year 2013-2014 and Plan Year 2014-2015 rates were set equal to the actuarially calculated rates
 Plan Year 2015-2016 rates will be set by the Legislature during the 2015 Legislative Session

Membership Class	Plan Year 2013-2014		Plan Year 2014-2015		Plan Year 2015-2016	
	Actuarially Calculated	Legislated	Actuarially Calculated	Legislated	Actuarially Calculated	Legislated
1. Regular	6.09%	6.09%	6.54%	6.54%	5.93%	TBD
2. Special Risk	18.88%	18.88%	19.71%	19.71%	21.85%	TBD
3. Special Risk Administrative	45.91%	45.91%	55.12%	55.12%	38.72%	TBD
4. Elected Officers' Class - Judicial	28.37%	28.37%	33.71%	33.71%	35.87%	TBD
5. Elected Officers' Class - Leg-Atty-Cab	40.92%	40.92%	56.99%	56.99%	54.30%	TBD
6. Elected Officers' Class - Local	41.87%	41.87%	54.22%	54.22%	53.67%	TBD
7. Senior Management Service	21.01%	21.01%	24.79%	24.79%	24.72%	TBD
8. Composite without DROP	8.37%	8.37%	8.99%	8.99%	8.78%	TBD
9. DROP	11.64%	11.64%	11.02%	11.02%	11.22%	TBD
10. Composite with DROP	8.67%	8.67%	9.17%	9.17%	8.99%	TBD

¹ The above rates (applied to DB plan payroll) are combined with the Investment Plan contribution rates (applied to IP payroll) to derive the uniform blended rates employers contribute.

² Contribution rates show above do not include the 3% required employee contribution rate.

5. Accounting Statement

The liabilities presented in this report differ by whether future anticipated salary increases or service credits are included in the calculation. Actuarial Liabilities in Section 3 include the effects of projected future salary increases and service credits.

Accounting Standards Codification (ASC) 960 – Plan Accounting – Defined Benefit Pension Plans, formerly titled Statement No. 35 of the Financial Accounting Standards Board (FASB) previously required the FRS to disclose certain information regarding the Plan's funded status. ASC accounting liabilities do not include either future salary increases or future service credits.

Statement No. 67 of the Governmental Standards Board (GASB) is the new standard for disclosure of pension information for the standalone financial reporting by public systems. The GASB 67 information for FRS will be provided under separate cover.

The ASC 960 disclosures are intended to provide a “snap shot” view of how the Plan's assets compare to its liabilities if contributions stopped and accrued benefit claims had to be satisfied. The Accrued Benefits Obligation (ABO) is determined based on each member's accrued benefit, that is, the benefit based on employee service and compensation earned up to the valuation date. We assume that the plan is ongoing and that members continue to terminate employment, retire, and otherwise act in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.65% per annum.

Table 5-1 presents the ABO for the FRS determined as of July 1, 2014. All of the calculations presented in that table are based on the actuarial assumptions used in the valuation, as described in Appendix A, except salaries are not projected to increase. Values of the ABO are shown by type of member and by class. The active members' values are also divided between the employee-financed (accumulated member contributions) and employer-financed portions, with the employer-financed portions shown separately for vested benefits and non-vested benefits. For purposes of calculating the ABO, post-Senate Bill 2100, we based the COLA percentage on 3% multiplied by service through June 30, 2011, divided by projected service at the time of retirement.

Table 5-2 presents the total ABO for the FRS for the current and two prior valuations. The trend of the FRS's funded status, as measured by the ABO over a period of time, is one indication of the progress being made in accumulating sufficient assets to pay benefits when due. Past and future results are affected by changes in actuarial assumptions, benefit provisions, and accounting policies.

Table 5-3 reconciles the ABO determined as of the prior valuation, July 1, 2013, to the ABO as of July 1, 2014. This reconciliation indicates the impact of the assumption changes and plan changes, if any.

Table 5-4 presents the Net Pension Obligation under GASB Statement No. 27. This Statement requires the Actuarial Accrued Liability (AAL) to be compared with the Actuarial Value of Assets used for funding purposes. GASB Statement No. 27 is not applicable after plan year 2013-2014. GASB 67 accounting information will be provided under separate cover.

Table 5-1
Florida Retirement System
Accumulated Benefit Obligation - ASC 960
July 1, 2014
 (All Amounts in Thousands)

	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class -- Judicial	Leg-Atty-Cab	Local	Senior Management	DROP	Total
A. Accumulated Benefit Obligation									
1. Active Members									
a. Accumulated Member Contributions	\$1,474,869	\$271,469	\$271	\$8,715	\$610	\$3,679	\$42,010	\$0	\$1,801,623
b. Employer-Financed Vested Benefits	20,582,427	6,041,886	8,047	271,694	14,922	103,530	907,327	0	27,929,833
c. Employer-Financed Non-Vested Benefits	865,846	220,440	361	8,826	864	5,040	22,901	0	1,124,278
d. Total	\$22,923,142	\$6,533,795	\$8,679	\$289,235	\$16,396	\$112,249	\$972,238	\$0	\$30,855,734
2. Annuitants	\$62,949,814	\$15,443,355	\$73,713	\$664,375	\$71,697	\$415,601	\$2,084,133	\$19,386,218	\$101,088,906
3. Other Inactive Members	\$4,447,472	\$720,788	\$1,256	\$19,593	\$9,562	\$21,358	\$170,143	\$0	\$5,390,172
4. Total Accumulated Benefit Obligation	\$90,320,428	\$22,697,938	\$83,648	\$973,203	\$97,655	\$549,208	\$3,226,514	\$19,386,218	\$137,334,812
B. Assets Available for Benefits									
1. Market	\$103,102,549	\$25,088,382	\$78,298	\$780,274	\$58,406	\$317,374	\$2,385,247	\$18,156,238	\$149,966,768
2. Actuarial Basis	\$95,302,443	\$23,190,349	\$72,374	\$721,243	\$53,987	\$293,363	\$2,204,794	\$16,782,648	\$138,621,201
C. Unfunded / (Surplus) Total Accumulated Benefit Obligation,									
Assets at:									
1. Market	(\$12,782,121)	(\$2,390,444)	\$5,350	\$192,929	\$39,249	\$231,834	\$841,267	\$1,229,980	(\$12,631,956)
2. Actuarial Basis	(\$4,982,015)	(\$492,411)	\$11,274	\$251,960	\$43,668	\$255,845	\$1,021,720	\$2,603,570	(\$1,286,389)
D. Percent of Accumulated Obligation Funded,									
Assets at:									
1. Market	114.15%	110.53%	93.60%	80.18%	59.81%	57.79%	73.93%	93.66%	109.20%
2. Actuarial Basis	105.52%	102.17%	86.52%	74.11%	55.28%	53.42%	68.33%	86.57%	100.94%

Table 5-2
Florida Retirement System
Analysis of Funding Progress - ASC 960
 (All Amounts in Thousands)

	July 1, 2012 Valuation Basis	July 1, 2013 Valuation Basis	July 1, 2014 Valuation Basis
A. Accumulated Benefit Obligation			
1. Active Members			
a. Accumulated Member Contributions	\$681,638	\$1,228,277	\$1,801,623
b. Employer-Financed Vested Benefits	25,988,973	25,782,555	27,929,833
c. Employer-Financed Non-Vested Benefits	1,540,804	1,359,236	1,124,278
d. Total	\$28,211,415	\$28,370,068	\$30,855,734
2. Annuitants	\$69,915,462	\$74,843,720	\$81,702,688
3. Other Inactive Members	\$5,059,727	\$5,234,608	\$5,390,172
4. DROP	\$19,245,727	\$20,597,701	\$19,386,218
5. Total Accumulated Benefit Obligation	\$122,432,331	\$129,046,097	\$137,334,812
B. Assets Available for Benefits			
1. Market	\$122,921,388	\$133,027,956	\$149,966,768
2. Actuarial Basis	\$127,891,781	\$131,680,617	\$138,621,201
C. Unfunded/(Surplus) Total Accumulated Benefit Obligation, Assets at:			
1. Market	(\$489,057)	(\$3,981,859)	(\$12,631,956)
2. Actuarial Basis	(\$5,459,450)	(\$2,634,518)	(\$1,286,389)
D. Percent of Accumulated Benefit Obligation Funded, Assets at:			
1. Market	100.40%	103.09%	109.20%
2. Actuarial Basis	104.46%	102.04%	100.94%
E. Annual Salaries ¹	\$24,491,371	\$24,568,642	\$24,723,565
F. Unfunded/(Surplus) Accumulated Benefit Obligation as a Percent of Salary, Assets at:			
1. Market	-2.00%	-16.21%	-51.09%
2. Actuarial Basis	-22.29%	-10.72%	-5.20%

¹ Includes Drop Salaries

Table 5-3
Florida Retirement System
Statement of Changes in Accumulated
Benefit Obligation
 (All Amounts in Thousands)

	ASC 960 Basis
Accumulated Benefit Obligation at July 1, 2013	\$129,046,097
Increase (Decrease) During Year Attributable to:	
Increase for Interest Due to Decrease in Discount Period	\$9,664,671
Benefits Paid - PY 2014	(\$8,846,383)
Benefits Accrued, & Other Gains/Losses	\$4,139,740
Plan Provision / Assumption Changes	\$3,330,687
Net Increase (Decrease)	\$8,288,715
Accumulated Benefit Obligation at July 1, 2014	\$137,334,812

Table 5-4
Florida Retirement System
Net Pension Obligation - GASB Statement #27
(All Amounts in Thousands)

	ACTUAL		PROJECTED
	<u>7/1/2012 - 6/30/2013</u>	<u>7/1/2013 - 6/30/2014</u>	<u>7/1/2014 - 6/30/2015</u>
1. Unfunded Actuarial Liability (UAL) / (Surplus)	\$18,956,422	\$20,157,815	NA
2. Amortization of UAL	1,026,055	1,091,082	NA
3. Normal Cost	<u>1,065,288</u>	<u>1,081,164</u>	<u>NA</u>
4. Annual Required Contribution: [2 + 3]	\$2,091,343	\$2,172,247	NA
5. Interest on Net Pension Obligation:	16,332	71,172	NA
6. Adjustment to Annual Required Contribution:	<u>(11,406)</u>	<u>(49,707)</u>	<u>NA</u>
7. Annual Pension Cost: [4 + 5 + 6]	\$2,096,269	\$2,193,712	NA
8. Contributions Made:	<u>\$1,388,656</u>	<u>\$2,273,347</u>	<u>NA</u>
9. Percent Contributed: [8 / 4]	66%	105%	NA
10. Increase in Net Pension Obligation: [7 - 8]	707,613	(79,635)	NA
11. Net Pension Obligation at Beginning of Year:	<u>210,731</u>	<u>918,344</u>	<u>NA</u>
12. Net Pension Obligation at End of Year:	918,344	838,709	NA

Appendix A: Actuarial Methods, Procedures and Assumptions

The actuarial assumptions are intended to estimate the future experience of the members of the FRS and of the FRS in other areas that affect the projected benefit flow and anticipated investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in the estimated costs of the FRS' benefits.

Assumption Tables

A complete listing of all the assumptions, methods and procedures that are used in the 2014 actuarial valuation of FRS are summarized on the following pages. These assumptions, methods, and procedures were approved by the 2014 Actuarial Assumptions Conference and are based on the 2014 Experience Study.

Data

Except where noted, the analysis in this study was based on data as of June 30, 2014, as provided by the Division. The data used in this valuation consist of financial information and records of age, service and income of active members, annuitants, and other inactive members entitled to future benefits. The Division is solely responsible for the validity, accuracy and comprehensiveness of this information; the results of our analysis can be expected to differ and may need to be revised if the underlying data supplied is incomplete or inaccurate.

Methods and Procedures

Actuarial cost method: The total cost of FRS, over time, will be equal to the benefits paid and expenses less investment earnings and is not affected directly by the actuarial cost method. The actuarial cost method is simply a tool to allocate costs to past, current or future years and thus primarily affects the timing of cost recognition.

FRS uses Entry Age Normal (EAN), which is by far the most commonly used cost method for state pension systems. Conceptually, EAN sets the normal cost rate level as a percent of payroll over a member's full projected working career. There are different categories of EAN, including Individual EAN, which is the most commonly used EAN category, and Ultimate EAN, which is the category of EAN used by FRS. Even each category of EAN contains different interpretations of how to calculate the key metrics. New GASB Standards Nos. 67 & 68 mandate the use of a particular interpretation of Individual EAN for financial reporting purposes. GASB 67 information for FRS will be provided under separate cover.

Sponsors have autonomy to choose any cost method and identify any variation of that cost method for purposes of setting system funding policy. Ultimate EAN, which is used by FRS, sets normal cost as if each member was initially enrolled on or after July 1, 2011 (Tier II). As such, normal cost is lower for Ultimate EAN than for Individual EAN, which sets normal cost in a manner that representative of the tier in which the member actually participates. Cost methods do allocate benefits between past and projected future service, but do not affect the level of projected benefits; benefits are based on actual tier of membership under either Ultimate EAN or Individual EAN. Compared to the Individual EAN method, the Ultimate EAN allocates fewer projected benefits to future service (via lower normal cost) and hence produces a higher actuarial accrued liability for past service as a counterbalance.

The interpretation of Ultimate EAN used in this 2014 valuation sets normal cost rates as if each member in the System was in Tier II as noted above. The projected future service period used for calculating the present value of future normal costs is based on Tier I retirement timing assumptions for members in Tier I. This is a

change from the interpretation of Ultimate EAN used in the 2013 valuation. The normal cost rate is the same under both the 2013 and 2014 methodology, but under the 2013 methodology, the present value of future normal costs was based on Tier II retirement timing assumptions for all members.

Additional detail on the alternate interpretations of Ultimate EAN and their estimated impact on actuarial accrued liability calculations can be found in the Executive Summary of our 2013 actuarial valuation report.

UAL amortization method: The Unfunded Actuarial Liability (UAL) is amortized as a level percentage of projected payroll on which UAL Rates are charged in an effort to maintain level contribution rates as a percentage of payroll during the specified amortization period if future experience follows assumption. We recommend this methodology continue.

New UAL arises each year and is calculated in each new actuarial valuation. The newly arising UAL can be either positive or negative, and can be due either to experience varying from assumption or to changes in actuarial liability from modifications to assumptions, plan provisions or actuarial methods. Each year's newly arising UAL is currently amortized over a closed 30-year period as a level percent of the projected payroll on which UAL rates are charged.

Amortization periods longer than 20 years can incur significant negative amortization, wherein the calculated UAL increases for an extended period of time prior to final payoff even if all contributions are made and all assumptions are met. This was discussed and illustrated in Milliman's August 11, 2014 presentation materials to the Assumptions Conference Principals.

Asset valuation method: The method recognizes actual investment performance different from the long-term assumption systematically. The expected actuarial value of assets is determined by crediting the rate of investment return assumed in our valuation (7.75% through June 30, 2014; 7.65% beginning July 1, 2014) to the prior year's actuarial value of assets. Then, 20% of the difference between the actual market value and the expected actuarial value of assets is recognized. To insure that the AVA remains reasonably close to the MVA, the asset method includes a corridor whereby the AVA must remain within 80% to 120% of MVA.

Economic Assumptions

Assumption	
Inflation	2.60%
Real wage growth	0.65%
Payroll growth	3.25% (sum of above two items)
Investment Return	7.65%

Demographic Assumptions

Mortality

Healthy Mortality (Pre-Retirement and Post-Retirement)

- Female Non-Disabled: RP2000 Generational, 100% Annuitant White Collar, Scale BB
- Male Non-Disabled (other than Special Risk): RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB
- Male Non-Disabled (Special Risk): RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB

Disabled Mortality

- Female Disabled (other than Special Risk): RP2000, 100% Disabled Female set forward two years, no projection scale
- Female Disabled (Special Risk): 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale
- Male Disabled (other than Special Risk): RP2000, 100% Disabled Male setback four years, no projection scale
- Male Disabled (Special Risk): 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale

Retirement Assumptions (Tier I)

DROP Entry at first retirement eligibility

Age	Regular		Special Risk and Special Risk Admin		All Other	
	Female	Male	Female	Male	Female	Male
45	0.0%	0.0%	20.0%	23.0%	0.0%	0.0%
46	0.0%	0.0%	20.0%	23.0%	0.0%	0.0%
47	0.0%	0.0%	20.0%	23.0%	0.0%	0.0%
48	27.0%	23.0%	20.0%	30.0%	30.0%	30.0%
49	27.0%	23.0%	20.0%	30.0%	32.5%	32.5%
50	27.0%	23.0%	20.0%	30.0%	35.0%	35.0%
51	27.0%	23.0%	20.0%	40.0%	37.5%	37.5%
52	27.0%	23.0%	30.0%	50.0%	40.0%	40.0%
53	27.0%	23.0%	20.0%	50.0%	42.5%	42.5%
54	27.0%	23.0%	20.0%	50.0%	45.0%	45.0%
55	33.0%	30.0%	31.0%	29.0%	47.5%	47.5%
56	33.0%	30.0%	20.0%	5.0%	50.0%	50.0%
57	48.0%	55.0%	5.0%	5.0%	52.5%	52.5%
58	48.0%	55.0%	5.0%	5.0%	55.0%	55.0%
59	55.0%	55.0%	5.0%	5.0%	57.5%	57.5%
60	55.0%	55.0%	5.0%	5.0%	60.0%	60.0%
61	55.0%	55.0%	5.0%	5.0%	62.5%	62.5%
62	45.5%	41.0%	5.0%	5.0%	50.0%	50.0%
63	5.0%	5.0%	5.0%	5.0%	15.0%	15.0%
64	5.0%	5.0%	5.0%	5.0%	15.0%	15.0%
65	5.0%	5.0%	5.0%	5.0%	15.0%	15.0%
66	5.0%	5.0%	5.0%	5.0%	15.0%	15.0%
67	5.0%	5.0%	5.0%	5.0%	15.0%	15.0%
68	5.0%	5.0%	5.0%	5.0%	15.0%	15.0%
69	5.0%	5.0%	5.0%	5.0%	15.0%	15.0%
70-79	5.0%	5.0%	0.0%	0.0%	15.0%	15.0%
80	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Immediate Retirement at first retirement eligibility

Age	Regular		Special Risk and Special Risk Admin		Elected Officers' (All Subclasses)		Senior Management Service Class	
	Female	Male	Female	Male	Female	Male	Female	Male
45	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%	0.0%	0.0%
46	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%	0.0%	0.0%
47	0.0%	0.0%	4.0%	7.0%	0.0%	0.0%	0.0%	0.0%
48	4.0%	4.0%	4.0%	7.0%	10.0%	10.0%	5.0%	5.0%
49	4.0%	4.0%	4.0%	7.0%	10.0%	10.0%	5.0%	5.0%
50	4.0%	4.0%	7.0%	7.0%	10.0%	10.0%	5.0%	5.0%
51	4.0%	4.0%	7.0%	7.0%	10.0%	10.0%	5.0%	5.0%
52	4.0%	4.0%	7.0%	7.0%	10.0%	10.0%	5.0%	5.0%
53	4.0%	4.0%	7.0%	7.0%	10.0%	10.0%	5.0%	5.0%
54	5.0%	4.0%	7.0%	7.0%	10.0%	10.0%	5.0%	5.0%
55	5.0%	5.0%	7.0%	6.0%	10.0%	10.0%	5.0%	5.0%
56	7.0%	5.0%	6.0%	6.0%	10.0%	10.0%	5.0%	5.0%
57	7.0%	5.0%	6.0%	6.0%	10.0%	10.0%	5.0%	5.0%
58	7.0%	5.0%	6.0%	6.0%	10.0%	10.0%	10.0%	10.0%
59	7.0%	5.0%	6.0%	6.0%	10.0%	10.0%	10.0%	10.0%
60	7.0%	5.0%	6.0%	6.0%	10.0%	10.0%	10.0%	10.0%
61	9.0%	8.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
62	9.0%	11.0%	15.0%	15.0%	10.0%	10.0%	10.0%	10.0%
63	9.0%	10.0%	20.0%	20.0%	10.0%	10.0%	5.0%	5.0%
64	9.0%	10.0%	25.0%	25.0%	10.0%	10.0%	5.0%	5.0%
65	15.0%	10.0%	30.0%	30.0%	10.0%	10.0%	5.0%	5.0%
66	10.0%	10.0%	35.0%	35.0%	10.0%	10.0%	5.0%	5.0%
67	10.0%	10.0%	35.0%	35.0%	10.0%	10.0%	5.0%	5.0%
68	10.0%	10.0%	35.0%	35.0%	10.0%	10.0%	5.0%	5.0%
69	10.0%	10.0%	35.0%	35.0%	10.0%	10.0%	5.0%	5.0%
70-79	10.0%	10.0%	100.0%	100.0%	10.0%	10.0%	5.0%	5.0%
80	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Retirement Assumptions (Tier I) continued

Combined DROP/Immediate Retirement at first retirement eligibility

Age	Regular		Special Risk and Special Risk Admin		Elected Officers' (All Subclasses)		Senior Management Service Class	
	Female	Male	Female	Male	Female	Male	Female	Male
45	0.0%	0.0%	24.0%	27.0%	0.0%	0.0%	0.0%	0.0%
46	0.0%	0.0%	24.0%	27.0%	0.0%	0.0%	0.0%	0.0%
47	0.0%	0.0%	24.0%	30.0%	0.0%	0.0%	0.0%	0.0%
48	31.0%	27.0%	24.0%	37.0%	40.0%	40.0%	35.0%	35.0%
49	31.0%	27.0%	24.0%	37.0%	42.5%	42.5%	37.5%	37.5%
50	31.0%	27.0%	27.0%	37.0%	45.0%	45.0%	40.0%	40.0%
51	31.0%	27.0%	27.0%	47.0%	47.5%	47.5%	42.5%	42.5%
52	31.0%	27.0%	37.0%	57.0%	50.0%	50.0%	45.0%	45.0%
53	31.0%	27.0%	27.0%	57.0%	52.5%	52.5%	47.5%	47.5%
54	32.0%	27.0%	27.0%	57.0%	55.0%	55.0%	50.0%	50.0%
55	38.0%	35.0%	38.0%	35.0%	57.5%	57.5%	52.5%	52.5%
56	40.0%	35.0%	26.0%	11.0%	60.0%	60.0%	55.0%	55.0%
57	55.0%	60.0%	11.0%	11.0%	62.5%	62.5%	57.5%	57.5%
58	55.0%	60.0%	11.0%	11.0%	65.0%	65.0%	65.0%	65.0%
59	62.0%	60.0%	11.0%	11.0%	67.5%	67.5%	67.5%	67.5%
60	62.0%	60.0%	11.0%	11.0%	70.0%	70.0%	70.0%	70.0%
61	64.0%	63.0%	15.0%	15.0%	72.5%	72.5%	72.5%	72.5%
62	54.5%	52.0%	20.0%	20.0%	60.0%	60.0%	60.0%	60.0%
63	14.0%	15.0%	25.0%	25.0%	25.0%	25.0%	20.0%	20.0%
64	14.0%	15.0%	30.0%	30.0%	25.0%	25.0%	20.0%	20.0%
65	20.0%	15.0%	35.0%	35.0%	25.0%	25.0%	20.0%	20.0%
66	15.0%	15.0%	40.0%	40.0%	25.0%	25.0%	20.0%	20.0%
67	15.0%	15.0%	40.0%	40.0%	25.0%	25.0%	20.0%	20.0%
68	15.0%	15.0%	40.0%	40.0%	25.0%	25.0%	20.0%	20.0%
69	15.0%	15.0%	40.0%	40.0%	25.0%	25.0%	20.0%	20.0%
70-79	15.0%	15.0%	100.0%	100.0%	25.0%	25.0%	20.0%	20.0%
80	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Deferred Retirement subsequent to first retirement eligibility

Age	Regular		Special Risk and Special Risk Admin		All Other	
	Female	Male	Female	Male	Female	Male
45	0.0%	0.0%	3.0%	3.0%	0.0%	0.0%
46	0.0%	0.0%	3.0%	3.0%	0.0%	0.0%
47	0.0%	0.0%	3.0%	3.0%	0.0%	0.0%
48	2.0%	2.0%	4.0%	4.0%	5.0%	5.0%
49	2.0%	2.0%	4.0%	4.0%	5.0%	5.0%
50	2.0%	2.0%	4.0%	4.0%	5.0%	5.0%
51	2.0%	2.0%	4.0%	4.0%	5.0%	5.0%
52	2.0%	2.0%	5.0%	5.0%	5.0%	5.0%
53	2.0%	2.0%	5.0%	5.0%	5.0%	5.0%
54	2.0%	2.0%	5.0%	5.0%	5.0%	5.0%
55	2.0%	2.0%	5.0%	5.0%	5.0%	5.0%
56	2.0%	2.0%	5.0%	5.0%	5.0%	5.0%
57	2.0%	2.0%	5.0%	5.0%	5.0%	5.0%
58	3.5%	2.0%	5.0%	5.0%	5.0%	5.0%
59	5.0%	2.0%	5.0%	5.0%	5.0%	5.0%
60	5.0%	5.0%	7.0%	7.0%	5.0%	5.0%
61	5.0%	5.0%	9.0%	9.0%	5.0%	5.0%
62	12.0%	11.0%	20.0%	20.0%	15.0%	15.0%
63	8.0%	8.0%	20.0%	20.0%	11.0%	11.0%
64	8.0%	8.0%	20.0%	20.0%	11.0%	11.0%
65	15.0%	13.0%	20.0%	20.0%	15.0%	15.0%
66	15.0%	13.0%	25.0%	25.0%	15.0%	15.0%
67	15.0%	13.0%	25.0%	25.0%	15.0%	15.0%
68	15.0%	13.0%	25.0%	25.0%	15.0%	15.0%
69	15.0%	13.0%	25.0%	25.0%	15.0%	15.0%
70-79	15.0%	13.0%	100.0%	100.0%	15.0%	15.0%
80	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Retirement Assumptions (Tier II)

DROP Entry at first retirement eligibility

Age	Regular		Special Risk and Special Risk Admin		All Other	
	Female	Male	Female	Male	Female	Male
45	0.0%	0.0%	20.0%	23.0%	0.0%	0.0%
46	0.0%	0.0%	20.0%	23.0%	0.0%	0.0%
47	0.0%	0.0%	20.0%	23.0%	0.0%	0.0%
48	27.0%	23.0%	20.0%	30.0%	30.0%	30.0%
49	27.0%	23.0%	20.0%	30.0%	32.5%	32.5%
50	27.0%	23.0%	20.0%	30.0%	35.0%	35.0%
51	27.0%	23.0%	20.0%	40.0%	37.5%	37.5%
52	27.0%	23.0%	30.0%	50.0%	40.0%	40.0%
53	27.0%	23.0%	20.0%	50.0%	42.5%	42.5%
54	27.0%	23.0%	20.0%	50.0%	45.0%	45.0%
55	33.0%	30.0%	20.0%	50.0%	47.5%	47.5%
56	33.0%	30.0%	20.0%	50.0%	50.0%	50.0%
57	48.0%	55.0%	20.0%	50.0%	52.5%	52.5%
58	48.0%	55.0%	20.0%	50.0%	55.0%	55.0%
59	55.0%	55.0%	20.0%	50.0%	57.5%	57.5%
60	55.0%	55.0%	31.0%	29.0%	60.0%	60.0%
61	55.0%	55.0%	20.0%	5.0%	62.5%	62.5%
62	55.0%	55.0%	5.0%	5.0%	62.5%	62.5%
63	55.0%	55.0%	5.0%	5.0%	62.5%	62.5%
64	55.0%	55.0%	5.0%	5.0%	62.5%	62.5%
65	45.5%	41.0%	5.0%	5.0%	50.0%	50.0%
66	5.0%	5.0%	5.0%	5.0%	15.0%	15.0%
67	5.0%	5.0%	5.0%	5.0%	15.0%	15.0%
68	5.0%	5.0%	5.0%	5.0%	15.0%	15.0%
69	5.0%	5.0%	5.0%	5.0%	15.0%	15.0%
70-79	5.0%	5.0%	0.0%	0.0%	15.0%	15.0%
80	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Immediate Retirement at first retirement eligibility

Age	Regular		Special Risk and Special Risk Admin		Elected Officers' (All Subclasses)		Senior Management Service Class	
	Female	Male	Female	Male	Female	Male	Female	Male
45	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%	0.0%	0.0%
46	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%	0.0%	0.0%
47	0.0%	0.0%	4.0%	7.0%	0.0%	0.0%	0.0%	0.0%
48	4.0%	4.0%	4.0%	7.0%	10.0%	10.0%	5.0%	5.0%
49	4.0%	4.0%	4.0%	7.0%	10.0%	10.0%	5.0%	5.0%
50	4.0%	4.0%	7.0%	7.0%	10.0%	10.0%	5.0%	5.0%
51	4.0%	4.0%	7.0%	7.0%	10.0%	10.0%	5.0%	5.0%
52	4.0%	4.0%	7.0%	7.0%	10.0%	10.0%	5.0%	5.0%
53	4.0%	4.0%	7.0%	7.0%	10.0%	10.0%	5.0%	5.0%
54	5.0%	4.0%	7.0%	7.0%	10.0%	10.0%	5.0%	5.0%
55	5.0%	5.0%	7.0%	6.0%	10.0%	10.0%	5.0%	5.0%
56	7.0%	5.0%	6.0%	6.0%	10.0%	10.0%	5.0%	5.0%
57	7.0%	5.0%	6.0%	6.0%	10.0%	10.0%	5.0%	5.0%
58	7.0%	5.0%	6.0%	6.0%	10.0%	10.0%	10.0%	10.0%
59	7.0%	5.0%	6.0%	6.0%	10.0%	10.0%	10.0%	10.0%
60	7.0%	5.0%	6.0%	6.0%	10.0%	10.0%	10.0%	10.0%
61	9.0%	8.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
62	9.0%	8.0%	15.0%	15.0%	10.0%	10.0%	10.0%	10.0%
63	9.0%	8.0%	20.0%	20.0%	10.0%	10.0%	10.0%	10.0%
64	9.0%	8.0%	25.0%	25.0%	10.0%	10.0%	10.0%	10.0%
65	15.0%	11.0%	30.0%	30.0%	10.0%	10.0%	10.0%	10.0%
66	10.0%	10.0%	35.0%	35.0%	10.0%	10.0%	5.0%	5.0%
67	10.0%	10.0%	35.0%	35.0%	10.0%	10.0%	5.0%	5.0%
68	10.0%	10.0%	35.0%	35.0%	10.0%	10.0%	5.0%	5.0%
69	10.0%	10.0%	35.0%	35.0%	10.0%	10.0%	5.0%	5.0%
70-79	10.0%	10.0%	100.0%	100.0%	10.0%	10.0%	5.0%	5.0%
80	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Retirement Assumptions (Tier II) continued

Combined DROP/Immediate Retirement at first retirement eligibility

Age	Regular		Special Risk and Special Risk Admin		Elected Officers' (All Subclasses)		Senior Management Service Class	
	Female	Male	Female	Male	Female	Male	Female	Male
45	0.0%	0.0%	24.0%	27.0%	0.0%	0.0%	0.0%	0.0%
46	0.0%	0.0%	24.0%	27.0%	0.0%	0.0%	0.0%	0.0%
47	0.0%	0.0%	24.0%	30.0%	0.0%	0.0%	0.0%	0.0%
48	31.0%	27.0%	24.0%	37.0%	40.0%	40.0%	35.0%	35.0%
49	31.0%	27.0%	24.0%	37.0%	42.5%	42.5%	37.5%	37.5%
50	31.0%	27.0%	27.0%	37.0%	45.0%	45.0%	40.0%	40.0%
51	31.0%	27.0%	27.0%	47.0%	47.5%	47.5%	42.5%	42.5%
52	31.0%	27.0%	37.0%	57.0%	50.0%	50.0%	45.0%	45.0%
53	31.0%	27.0%	27.0%	57.0%	52.5%	52.5%	47.5%	47.5%
54	32.0%	27.0%	27.0%	57.0%	55.0%	55.0%	50.0%	50.0%
55	38.0%	35.0%	27.0%	56.0%	57.5%	57.5%	52.5%	52.5%
56	40.0%	35.0%	26.0%	56.0%	60.0%	60.0%	55.0%	55.0%
57	55.0%	60.0%	26.0%	56.0%	62.5%	62.5%	57.5%	57.5%
58	55.0%	60.0%	26.0%	56.0%	65.0%	65.0%	65.0%	65.0%
59	62.0%	60.0%	26.0%	56.0%	67.5%	67.5%	67.5%	67.5%
60	62.0%	60.0%	37.0%	35.0%	70.0%	70.0%	70.0%	70.0%
61	64.0%	63.0%	30.0%	15.0%	72.5%	72.5%	72.5%	72.5%
62	64.0%	63.0%	20.0%	20.0%	72.5%	72.5%	72.5%	72.5%
63	64.0%	63.0%	25.0%	25.0%	72.5%	72.5%	72.5%	72.5%
64	64.0%	63.0%	30.0%	30.0%	72.5%	72.5%	72.5%	72.5%
65	60.5%	52.0%	35.0%	35.0%	60.0%	60.0%	60.0%	60.0%
66	15.0%	15.0%	40.0%	40.0%	25.0%	25.0%	20.0%	20.0%
67	15.0%	15.0%	40.0%	40.0%	25.0%	25.0%	20.0%	20.0%
68	15.0%	15.0%	40.0%	40.0%	25.0%	25.0%	20.0%	20.0%
69	15.0%	15.0%	40.0%	40.0%	25.0%	25.0%	20.0%	20.0%
70-79	15.0%	15.0%	100.0%	100.0%	25.0%	25.0%	20.0%	20.0%
80	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Deferred Retirement subsequent to first retirement eligibility

Age	Regular		Special Risk and Special Risk Admin		All Other	
	Female	Male	Female	Male	Female	Male
45	0.0%	0.0%	3.0%	3.0%	0.0%	0.0%
46	0.0%	0.0%	3.0%	3.0%	0.0%	0.0%
47	0.0%	0.0%	3.0%	3.0%	0.0%	0.0%
48	2.0%	2.0%	4.0%	4.0%	5.0%	5.0%
49	2.0%	2.0%	4.0%	4.0%	5.0%	5.0%
50	2.0%	2.0%	4.0%	4.0%	5.0%	5.0%
51	2.0%	2.0%	4.0%	4.0%	5.0%	5.0%
52	2.0%	2.0%	5.0%	5.0%	5.0%	5.0%
53	2.0%	2.0%	5.0%	5.0%	5.0%	5.0%
54	2.0%	2.0%	5.0%	5.0%	5.0%	5.0%
55	2.0%	2.0%	5.0%	5.0%	5.0%	5.0%
56	2.0%	2.0%	5.0%	5.0%	5.0%	5.0%
57	2.0%	2.0%	5.0%	5.0%	5.0%	5.0%
58	3.5%	2.0%	5.0%	5.0%	5.0%	5.0%
59	5.0%	2.0%	5.0%	5.0%	5.0%	5.0%
60	5.0%	5.0%	7.0%	7.0%	5.0%	5.0%
61	5.0%	5.0%	9.0%	9.0%	5.0%	5.0%
62	5.0%	5.0%	20.0%	20.0%	5.0%	5.0%
63	5.0%	5.0%	20.0%	20.0%	5.0%	5.0%
64	5.0%	5.0%	20.0%	20.0%	5.0%	5.0%
65	12.0%	11.0%	20.0%	20.0%	15.0%	15.0%
66	8.0%	8.0%	25.0%	25.0%	11.0%	11.0%
67	8.0%	8.0%	25.0%	25.0%	11.0%	11.0%
68	15.0%	13.0%	25.0%	25.0%	15.0%	15.0%
69	15.0%	13.0%	25.0%	25.0%	15.0%	15.0%
70-79	15.0%	13.0%	100.0%	100.0%	15.0%	15.0%
80	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Line-of-Duty Disability Annual Rates

Age	SR Male	SR Female	Other Male	Other Female
20	0.010%	0.000%	0.000%	0.000%
21	0.010%	0.000%	0.000%	0.000%
22	0.010%	0.000%	0.000%	0.000%
23	0.010%	0.000%	0.000%	0.000%
24	0.010%	0.000%	0.000%	0.000%
25	0.010%	0.004%	0.001%	0.001%
26	0.010%	0.004%	0.001%	0.001%
27	0.010%	0.004%	0.001%	0.001%
28	0.010%	0.004%	0.001%	0.001%
29	0.010%	0.004%	0.001%	0.001%
30	0.010%	0.004%	0.001%	0.001%
31	0.010%	0.004%	0.001%	0.001%
32	0.010%	0.004%	0.001%	0.001%
33	0.010%	0.004%	0.001%	0.001%
34	0.010%	0.004%	0.001%	0.001%
35	0.010%	0.004%	0.001%	0.001%
36	0.010%	0.004%	0.001%	0.001%
37	0.010%	0.040%	0.001%	0.001%
38	0.020%	0.040%	0.001%	0.001%
39	0.020%	0.040%	0.001%	0.001%
40	0.020%	0.040%	0.001%	0.001%
41	0.020%	0.060%	0.004%	0.001%
42	0.020%	0.060%	0.004%	0.001%
43	0.020%	0.060%	0.004%	0.001%
44	0.040%	0.040%	0.004%	0.001%
45	0.060%	0.040%	0.004%	0.001%
46	0.080%	0.040%	0.004%	0.001%
47	0.100%	0.040%	0.004%	0.001%
48	0.120%	0.040%	0.004%	0.001%
49	0.140%	0.040%	0.004%	0.001%
50	0.140%	0.050%	0.006%	0.006%
51	0.100%	0.060%	0.006%	0.006%
52	0.100%	0.070%	0.006%	0.006%
53	0.100%	0.080%	0.006%	0.006%
54	0.100%	0.080%	0.006%	0.006%
55	0.100%	0.080%	0.006%	0.006%
56	0.100%	0.080%	0.006%	0.006%
57	0.100%	0.080%	0.006%	0.006%
58	0.100%	0.150%	0.006%	0.006%
59	0.100%	0.150%	0.010%	0.015%
60	0.140%	0.150%	0.010%	0.013%
61	0.180%	0.150%	0.010%	0.010%
62	0.220%	0.150%	0.010%	0.010%
63	0.260%	0.150%	0.010%	0.010%
64	0.300%	0.150%	0.010%	0.010%
65	0.260%	0.150%	0.010%	0.010%
66	0.240%	0.100%	0.010%	0.010%
67	0.200%	0.100%	0.010%	0.010%
68	0.100%	0.100%	0.010%	0.010%
69	0.100%	0.100%	0.010%	0.010%
70-79	0.100%	0.100%	0.010%	0.010%
80	0.100%	0.100%	0.001%	0.001%

Non-Duty Disability Annual Rates

Age	SR Male	SR Female	Other Male	Other Female
20	0.020%	0.000%	0.000%	0.000%
21	0.020%	0.000%	0.010%	0.010%
22	0.020%	0.000%	0.010%	0.010%
23	0.020%	0.000%	0.010%	0.010%
24	0.020%	0.000%	0.010%	0.010%
25	0.020%	0.020%	0.010%	0.010%
26	0.020%	0.020%	0.010%	0.010%
27	0.020%	0.020%	0.010%	0.010%
28	0.030%	0.020%	0.010%	0.010%
29	0.030%	0.020%	0.010%	0.010%
30	0.030%	0.020%	0.010%	0.010%
31	0.030%	0.020%	0.010%	0.010%
32	0.030%	0.020%	0.010%	0.010%
33	0.030%	0.030%	0.010%	0.010%
34	0.030%	0.030%	0.020%	0.010%
35	0.030%	0.030%	0.020%	0.010%
36	0.030%	0.030%	0.020%	0.020%
37	0.030%	0.030%	0.020%	0.020%
38	0.030%	0.030%	0.020%	0.020%
39	0.030%	0.030%	0.020%	0.020%
40	0.030%	0.030%	0.020%	0.020%
41	0.030%	0.030%	0.040%	0.040%
42	0.030%	0.060%	0.040%	0.040%
43	0.030%	0.060%	0.040%	0.040%
44	0.030%	0.060%	0.080%	0.040%
45	0.030%	0.060%	0.080%	0.060%
46	0.030%	0.060%	0.080%	0.060%
47	0.080%	0.060%	0.080%	0.100%
48	0.080%	0.110%	0.080%	0.100%
49	0.080%	0.110%	0.120%	0.100%
50	0.080%	0.110%	0.160%	0.100%
51	0.080%	0.110%	0.200%	0.140%
52	0.080%	0.110%	0.200%	0.140%
53	0.050%	0.110%	0.200%	0.140%
54	0.050%	0.110%	0.200%	0.140%
55	0.050%	0.110%	0.250%	0.160%
56	0.050%	0.110%	0.250%	0.180%
57	0.050%	0.110%	0.250%	0.200%
58	0.050%	0.110%	0.300%	0.220%
59	0.050%	0.110%	0.300%	0.240%
60	0.050%	0.110%	0.300%	0.260%
61	0.050%	0.110%	0.200%	0.200%
62	0.050%	0.110%	0.150%	0.140%
63	0.050%	0.110%	0.100%	0.080%
64	0.050%	0.110%	0.100%	0.080%
65	0.050%	0.110%	0.100%	0.080%
66	0.050%	0.110%	0.040%	0.080%
67	0.050%	0.110%	0.040%	0.040%
68	0.050%	0.110%	0.040%	0.040%
69	0.050%	0.110%	0.040%	0.040%
70-79	0.050%	0.110%	0.040%	0.040%
80	0.050%	0.110%	0.040%	0.040%

Withdrawal – Other Terminations of Employment Annual Rates

Regular – Male										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
	40	45								
0	32.8%	27.2%	25.8%	25.8%	24.4%	24.4%	23.4%	27.4%	27.4%	27.4%
1	25.4%	18.5%	15.4%	14.3%	12.6%	12.5%	12.2%	12.2%	12.2%	12.2%
2	22.7%	17.2%	14.0%	12.8%	12.0%	11.6%	10.7%	10.7%	10.7%	10.7%
3	18.4%	14.6%	13.2%	12.6%	10.7%	10.3%	9.4%	9.3%	9.3%	9.3%
4	15.8%	12.7%	11.8%	10.9%	9.0%	8.8%	7.9%	7.8%	7.8%	7.8%
5	11.7%	9.7%	8.8%	8.5%	7.4%	6.8%	6.0%	6.8%	6.8%	6.8%
6	11.1%	8.5%	7.8%	7.5%	6.7%	6.5%	5.5%	5.4%	5.4%	5.4%
7	11.1%	8.4%	7.1%	6.8%	6.2%	6.0%	5.3%	5.2%	5.1%	5.1%
8	11.0%	7.7%	6.4%	6.2%	5.8%	5.1%	4.6%	4.4%	4.3%	4.3%
9	10.0%	6.3%	5.5%	5.3%	5.3%	5.1%	4.6%	4.3%	4.2%	4.2%
10+	9.8%	6.2%	4.7%	4.2%	3.0%	2.7%	3.0%	4.5%	5.3%	3.7%

Regular – Female										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
	40	45								
0	30.3%	26.6%	25.4%	25.4%	24.4%	24.4%	23.2%	23.2%	23.2%	23.2%
1	25.8%	19.8%	16.9%	15.9%	14.0%	13.9%	13.4%	13.4%	13.4%	13.4%
2	22.1%	17.1%	14.5%	13.5%	12.1%	11.9%	11.0%	11.0%	11.0%	11.0%
3	17.4%	13.0%	11.6%	11.2%	10.0%	9.8%	8.8%	8.7%	8.7%	8.7%
4	15.4%	12.9%	11.3%	10.9%	9.1%	8.8%	8.4%	8.3%	8.3%	8.3%
5	13.5%	10.7%	9.4%	9.0%	7.0%	6.7%	6.2%	6.1%	6.1%	6.1%
6	11.4%	9.7%	8.7%	8.0%	6.5%	6.5%	5.9%	5.8%	5.8%	5.8%
7	11.3%	9.2%	8.1%	7.8%	6.3%	6.1%	5.5%	5.4%	5.4%	5.4%
8	10.5%	7.8%	7.1%	6.8%	6.1%	5.8%	5.5%	5.4%	5.4%	5.4%
9	10.2%	7.1%	6.5%	6.2%	5.0%	4.7%	4.6%	4.5%	4.5%	4.5%
10+	11.6%	5.3%	5.4%	4.6%	3.3%	3.0%	3.0%	3.0%	3.0%	3.0%

Withdrawal (continued)

Elected Officers' Class: Local – Male										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
	40	45								
0	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%	8.2%
1	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%
2	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
3	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
4	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
5	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%
6	2.7%	2.7%	2.7%	2.7%	2.7%	2.7%	2.7%	2.7%	2.7%	2.7%
7	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
8	13.8%	13.8%	13.8%	13.8%	13.8%	13.8%	13.6%	13.4%	13.3%	11.5%
9	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.6%	4.4%	4.3%	2.5%
10+	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.6%	5.3%	5.2%	3.5%

Elected Officers' Class: Local – Female										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
	40	45								
0	0	0	0	0	0	0	0	0	0	0
1	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
2	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
3	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
4	18.1%	18.1%	18.1%	18.1%	18.1%	18.1%	18.1%	18.1%	18.1%	18.1%
5	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%
6	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
7	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
8	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	11.9%	11.7%	11.6%	10.2%
9	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.1%	2.8%	2.7%	1.0%
10+	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.1%	3.9%	3.8%	2.4%

Withdrawal (continued)

Elected Officers' Class: Leg-Atty-Cab – Male										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
	40	45								
0	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%
1	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%
2	11.7%	11.7%	11.7%	11.7%	11.7%	11.7%	11.7%	11.7%	11.7%	11.7%
3	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%
4	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
5	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
6	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%
7	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
8	20.2%	20.2%	20.2%	20.2%	20.2%	20.8%	20.0%	18.7%	18.4%	16.7%
9	6.6%	6.6%	6.6%	6.6%	6.6%	7.2%	6.4%	5.2%	4.9%	3.1%
10+	6.7%	6.7%	6.7%	6.7%	6.7%	7.1%	6.6%	5.7%	5.5%	4.2%

Elected Officers' Class: Leg-Atty-Cab – Female										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
	40	45								
0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%
2	15.9%	15.9%	15.9%	15.9%	15.9%	15.9%	15.9%	15.9%	15.9%	15.9%
3	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
4	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%
5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
6	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
7	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
8	17.8%	17.8%	17.8%	17.8%	17.8%	18.4%	17.6%	16.3%	16.0%	14.3%
9	3.5%	3.5%	3.5%	3.5%	3.5%	4.1%	3.3%	2.1%	1.8%	0.0%
10+	10.8%	10.8%	10.8%	10.8%	10.8%	11.4%	10.6%	9.4%	9.1%	7.3%

Withdrawal (continued)

Elected Officers' Class: Judicial – Male										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
	40	45								
0	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
1	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
2	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
3	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
4	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
5	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
6	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
7	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
8	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
9	1.3%	1.3%	1.3%	1.2%	1.2%	1.2%	1.1%	0.8%	0.7%	0.5%
10+	2.0%	2.0%	2.0%	1.9%	1.9%	1.9%	1.7%	1.3%	1.1%	0.7%

Elected Officers' Class: Judicial – Female										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
	40	45								
0	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
1	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
2	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
3	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
4	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%
5	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
6	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
7	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
8	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
9	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.4%	1.1%	1.0%	0.8%
10+	2.9%	2.9%	2.9%	2.7%	2.7%	2.7%	2.4%	2.0%	1.8%	1.4%

Withdrawal (continued)

Senior Management – Male										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
	40	45								
0	8.5%	8.5%	8.5%	8.5%	8.4%	8.5%	8.5%	8.5%	8.5%	8.5%
1	21.0%	17.5%	15.5%	14.6%	14.2%	14.1%	14.1%	14.1%	14.1%	14.1%
2	21.0%	17.5%	15.5%	14.6%	14.2%	14.1%	14.1%	14.1%	14.1%	14.1%
3	19.5%	18.5%	17.7%	17.1%	16.7%	16.4%	16.2%	16.0%	16.0%	16.0%
4	15.5%	14.9%	14.5%	13.6%	12.9%	12.6%	12.4%	12.3%	12.2%	12.2%
5	10.9%	10.5%	10.0%	9.7%	9.3%	8.6%	8.2%	8.1%	8.0%	8.0%
6	10.6%	10.3%	9.8%	9.3%	9.0%	8.7%	8.4%	8.3%	8.1%	8.1%
7	10.5%	10.2%	9.7%	9.2%	8.8%	8.5%	8.3%	8.1%	8.0%	8.0%
8	9.6%	9.5%	9.1%	8.8%	8.5%	8.3%	8.1%	8.0%	7.9%	7.8%
9	6.6%	6.6%	6.3%	6.1%	5.9%	5.7%	5.6%	5.4%	5.3%	5.3%
10+	4.8%	4.8%	4.1%	3.6%	3.2%	2.9%	3.0%	3.1%	3.5%	2.6%

Senior Management – Female										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
	40	45								
0	8.5%	8.5%	8.5%	8.5%	8.4%	8.5%	8.5%	8.5%	8.5%	8.5%
1	15.5%	13.0%	11.8%	11.1%	10.9%	10.8%	10.8%	10.8%	10.8%	10.8%
2	18.3%	16.0%	14.7%	13.8%	13.4%	13.2%	13.2%	13.2%	13.2%	13.2%
3	17.1%	16.2%	15.5%	15.0%	14.6%	14.3%	14.1%	14.0%	14.0%	14.0%
4	12.1%	11.3%	10.5%	9.9%	9.4%	9.0%	8.7%	8.6%	8.5%	8.5%
5	12.1%	11.3%	10.5%	9.9%	9.4%	9.0%	8.7%	8.6%	8.5%	8.5%
6	10.9%	10.6%	10.1%	9.7%	9.4%	9.1%	8.8%	8.7%	8.5%	8.5%
7	10.3%	10.1%	9.6%	9.2%	8.8%	8.6%	8.4%	8.2%	8.1%	8.1%
8	7.7%	7.6%	7.1%	6.8%	6.5%	6.2%	6.0%	5.9%	5.8%	5.7%
9	7.4%	7.4%	6.9%	6.5%	6.1%	5.8%	5.5%	5.3%	5.1%	5.1%
10+	4.8%	4.8%	3.9%	3.2%	2.7%	2.4%	2.1%	1.9%	1.9%	1.9%

Withdrawal (continued)

Special Risk – Male										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
					40	45				
0	21.4%	20.6%	20.6%	20.6%	20.6%	20.6%	20.6%	20.6%	20.6%	20.6%
1	10.3%	9.8%	9.5%	8.8%	8.0%	7.3%	6.5%	5.8%	5.3%	5.3%
2	8.6%	8.1%	7.7%	7.4%	6.8%	6.0%	5.3%	4.7%	4.7%	4.7%
3	8.4%	7.9%	7.5%	7.2%	6.7%	6.0%	5.3%	4.7%	4.7%	4.7%
4	7.5%	7.0%	6.7%	6.5%	6.0%	5.5%	5.0%	4.6%	4.6%	4.6%
5	5.3%	5.3%	5.3%	5.3%	4.8%	4.3%	3.8%	3.3%	3.3%	3.3%
6	5.2%	5.2%	5.2%	5.1%	4.6%	4.1%	3.6%	3.2%	3.2%	3.2%
7	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
8	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
9	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
10+	2.3%	2.3%	2.1%	2.0%	1.9%	1.8%	1.8%	1.8%	1.8%	1.8%

Special Risk – Female										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
					40	45				
0	21.3%	21.3%	21.3%	21.3%	21.3%	21.3%	21.3%	21.3%	21.3%	21.3%
1	15.5%	14.2%	13.2%	12.2%	11.2%	10.2%	9.2%	8.4%	8.4%	8.4%
2	12.3%	11.6%	10.6%	9.6%	8.6%	7.6%	6.6%	5.8%	5.8%	5.8%
3	10.3%	9.8%	9.3%	8.8%	8.3%	7.6%	6.6%	5.6%	5.6%	5.6%
4	9.7%	9.2%	8.7%	8.4%	7.6%	7.0%	6.4%	5.4%	5.4%	5.4%
5	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	5.3%	5.3%	5.3%
6	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.1%	5.1%	5.1%
7	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
8	4.2%	4.2%	4.2%	4.2%	4.1%	4.1%	4.1%	4.1%	4.1%	4.1%
9	4.2%	4.2%	4.2%	4.1%	4.1%	4.1%	4.0%	4.0%	4.0%	4.0%
10+	1.9%	1.9%	1.7%	1.5%	2.5%	2.5%	1.6%	4.0%	4.0%	4.0%

Withdrawal (continued)

Special Risk Administrative – Male										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
					40	45				
0	14.6%	13.9%	13.9%	13.9%	13.9%	13.9%	13.9%	13.9%	13.9%	13.9%
1	11.3%	10.8%	10.3%	9.9%	9.7%	9.5%	9.4%	9.4%	9.4%	9.4%
2	10.4%	9.7%	9.3%	8.9%	8.7%	8.5%	8.4%	8.4%	8.4%	8.4%
3	9.7%	9.1%	8.7%	8.3%	7.9%	7.8%	7.7%	7.6%	7.6%	7.6%
4	8.8%	8.3%	8.0%	7.8%	7.6%	7.4%	7.4%	7.4%	7.4%	7.4%
5	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
6	4.4%	4.4%	4.4%	4.2%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%
7	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%
8	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
9	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
10+	3.9%	3.9%	3.6%	3.4%	3.2%	3.3%	3.6%	7.5%	7.5%	7.5%

Special Risk Administrative – Female										
Combined Years of Service	20	25	30	35	Attained Age		50	55	60	65
					40	45				
0	22.5%	22.5%	22.5%	22.5%	22.5%	22.5%	22.5%	22.5%	22.5%	22.5%
1	19.4%	18.0%	17.1%	16.5%	16.1%	15.9%	15.7%	15.7%	15.7%	15.7%
2	17.5%	16.9%	16.5%	16.2%	15.9%	15.8%	15.7%	15.7%	15.7%	15.7%
3	20.3%	19.8%	19.3%	19.0%	18.7%	18.6%	18.4%	18.4%	18.4%	18.4%
4	20.8%	20.2%	19.8%	19.4%	19.0%	18.8%	18.7%	18.7%	18.7%	18.7%
5	18.8%	18.8%	18.8%	18.8%	18.8%	18.8%	18.8%	18.8%	18.8%	18.8%
6	18.7%	18.7%	18.7%	18.7%	18.7%	18.7%	18.7%	18.7%	18.7%	18.7%
7	17.9%	17.9%	17.9%	17.9%	17.9%	17.9%	17.9%	17.9%	17.9%	17.9%
8	17.8%	17.8%	17.7%	17.7%	17.7%	17.6%	17.6%	17.6%	17.6%	17.6%
9	17.8%	17.8%	17.8%	17.8%	17.7%	17.7%	17.6%	17.6%	17.6%	17.6%
10+	18.4%	18.4%	18.1%	17.8%	17.6%	17.7%	18.0%	21.0%	21.0%	21.0%

Individual Member Salary Increase Assumptions

- (Based on 2.60% inflation assumption)

Combined Years of Service	-- Elected Officers' Class --													
	Regular		Special Risk		Special Risk Admin		Local		Leg-Atty-Cab		Judicial		Senior Management	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
0	7.80%	7.60%	7.60%	7.80%	4.60%	7.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%		
1	5.50%	5.70%	5.90%	6.50%	4.60%	7.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	6.60%	7.10%
2	5.00%	5.30%	5.60%	6.10%	4.60%	7.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	6.20%	6.40%
3	5.00%	5.10%	5.60%	6.00%	4.60%	7.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	6.20%	6.10%
4	4.90%	5.00%	5.60%	6.00%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	5.30%	5.40%
5	4.80%	4.90%	5.60%	6.00%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	5.30%	5.00%
6	4.80%	4.80%	5.60%	5.90%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	5.30%	5.00%
7	4.70%	4.80%	5.50%	5.70%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.80%	4.70%
8	4.60%	4.70%	5.50%	5.70%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.80%	4.70%
9	4.60%	4.70%	5.50%	5.70%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.80%	4.70%
10	4.60%	4.50%	5.50%	5.60%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.80%	4.70%
11	4.50%	4.50%	5.30%	5.60%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.80%	4.70%
12	4.40%	4.50%	5.30%	5.40%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.80%	4.70%
13	4.40%	4.50%	5.20%	5.40%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.80%	4.70%
14	4.40%	4.50%	5.20%	5.30%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.80%	4.30%
15	4.40%	4.40%	5.20%	5.30%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.80%	4.30%
16	4.40%	4.40%	5.00%	5.30%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.80%	4.30%
17	4.40%	4.40%	5.00%	5.30%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.30%	4.30%
18	4.30%	4.30%	5.00%	5.30%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.30%	4.30%
19	4.30%	4.30%	5.00%	5.20%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.30%	4.30%
20	4.30%	4.30%	5.00%	5.20%	4.60%	6.00%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.30%	4.30%
21	4.20%	4.30%	5.00%	5.10%	4.60%	5.30%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.30%	4.30%
22	4.20%	4.30%	5.00%	5.00%	4.60%	5.30%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.30%	4.30%
23	4.10%	4.20%	5.00%	5.00%	4.60%	5.30%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.30%	4.30%
24	4.10%	4.10%	5.10%	5.40%	4.60%	5.30%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.30%	4.30%
25	4.00%	4.00%	5.10%	5.40%	4.60%	5.30%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.30%	4.00%
26	3.90%	4.00%	5.10%	5.40%	4.60%	5.30%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.30%	4.00%
27	3.80%	4.00%	5.10%	5.40%	4.60%	5.30%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.30%	4.00%
28	3.70%	3.90%	5.10%	5.40%	4.60%	5.30%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	4.30%	4.00%
29	4.00%	4.40%	5.10%	5.40%	4.60%	5.30%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	5.20%	4.70%
30+	4.00%	4.40%	5.10%	5.40%	4.60%	5.30%	4.10%	4.10%	5.20%	4.70%	4.10%	4.10%	5.20%	4.70%

Unused Annual Leave Available at Retirement

Membership Class	Hours
Regular	230
Special Risk	290
Senior Management	290
Others Not Listed Above	230

Military Service and Out-of-State Service Credits

Active members are assumed to have purchased the following additional years of service credit.

Type of Service Credit	Special Risk Class		All other classes	
	Men	Women	Men	Women
Military Service Credit ¹	0.2818	0	0.1853	0
Out-of-State Service Credit ²	0	0	0.0910	0.0910

¹ Pre-1987 hires only; service is eligible for the COLA.

² Pre-July 1, 2011 enrollees; service is eligible for the COLA.

No extra service credit was assumed for TRS and IFAS participants.

Changes to the Actuarial Assumptions

All assumptions were reviewed as part of the 2014 Experience Study and changes were adopted by the 2014 Actuarial Assumptions Conference.

Appendix B: Summary of Plan Provisions

All actuarial calculations are based upon our understanding of Florida Statutes regarding the retirement provisions of the retirement systems. These provisions are briefly summarized below for reference purposes, along with corresponding references to the Statutes. This summary encompasses the major provisions; it does not attempt to cover all of the detailed provisions.

Part I: Florida Retirement System (FRS)

The benefit and contribution provisions of the FRS are set forth in Chapter 121 of the Florida Statutes. Provisions relating to other State-administered retirement systems are set forth in other sections of the Florida Statutes, under Chapters 112, 122, and 238.

Effective Date

The effective date of the FRS was December 1, 1970. The FRS was created with closure and consolidation of the Teachers' Retirement System, the State and County Officers and Employees' Retirement System, and the Highway Patrol Pension Fund. In 1972, the Judicial Retirement System was also consolidated with the FRS. The FRS was created to provide a defined benefit retirement, disability, and survivor program for participating public employees. Social Security coverage is also required for all members.

Beginning in 2002, the FRS became one system with two primary programs, the existing Defined Benefit Program and a defined contribution plan alternative to the defined benefit plan known as the Investment Plan (IP). The earliest that any member could participate in the IP was July 1, 2002.

As of July 1, 2007, the Institute for Food and Agricultural Sciences Supplemental Retirement Program was consolidated under the FRS as a closed group.

(Section 121.011(2))

Membership

Membership is a condition of employment for all new state, county, or other participating agency employees filling regularly established positions and employed on or after December 1, 1970, or who elected to transfer from an existing system. Employees may be full-time or part-time and can be elected, appointed, or employed in state government, county government, a state university, or a community college. A city or special district may join the FRS at its option.

Effective July 1, 1978, a member in an existing retirement system who is re-employed after termination of employment may remain in that system, provided his or her member contributions have not been withdrawn.

Members of the FRS Defined Benefit Program when the IP was created were provided an educational period about their plan choice options prior to a 90-day election period to elect between the Defined Benefit Program and the Investment Plan (IP). Members newly hired after the IP became effective are provided five months after their month of hire to file an election between the two primary programs. Members who do not make an election default into the Defined Benefit Program.

After the initial active or default election to participate in the Defined Benefit Program or the IP, the employee has one opportunity, at the employee's discretion before termination or retirement, to choose to move from the Defined Benefit Program to the IP or from the IP to the Defined Benefit Program.

(Sections 121.051, 121.4501)

Classification

There are five separate classes of members: Regular Class, Special Risk Class, Special Risk Administrative Support Class, Elected Officers' Class, and Senior Management Service Class. In addition, the Deferred Retirement Option Program is available to defined benefit program members who meet the requirements for normal retirement under the Defined Benefit Program of the FRS.

Regular Class – members who are not classified as members of the Special Risk Class, Special Risk Administrative Support Class, Elected Officers' Class, or Senior Management Service Class.

Special Risk Class – members employed as law enforcement officers, emergency medical technicians, paramedics, firefighters, firefighter trainers, fire prevention inspectors, correctional officers, correctional probation officers, certain professional health care positions within the Department of Children and Family Services and the Department of Corrections, youth custody officers, or certain forensic positions within a law enforcement agency, or a medical examiner's office who meet the criteria set forth in the Florida Retirement System law and rules.

Special Risk Administrative Support Class – former Special Risk members employed as law enforcement officers, firefighters, correctional officers, or emergency medical technicians who have been moved or been re-assigned to non-Special Risk administrative support positions within a Florida Retirement System Special Risk employing agency.

Elected Officers' Class – members include the governor, lieutenant governor, cabinet officers, legislators, Supreme Court justices, district court of appeals judges, circuit judges, county court judges, state attorneys, public defenders, and elected county officers. Also included are city and special district officers if the employer chose to place their elected officials in this class. All such elected officers may withdraw from the Florida Retirement System, or elect membership in the Senior Management Service Class or, if state officers, in the Senior Management Service Optional Annuity Program.

Senior Management Service Class – members who hold positions in the Senior Management Service of the State of Florida; community college presidents; appointed school board superintendents; county and city managers; selected managerial staff of the Legislature; the Auditor General and managerial staff; the Executive Director of the Ethics Commission; the State University System Executive Service and university presidents; selected managerial staff of the State Board of Administration; judges of compensation claims; selected managerial staff with the Judicial Branch; Chief Deputy Court Administrator; capital collateral regional counsels and assistant capital collateral regional counsels; assistant state attorneys; assistant public defenders; assistant statewide prosecutors or assistant attorneys general; and non-elective managerial positions designated for SMSC membership by local government agencies. Members in this class have either chosen not to participate or are not eligible to participate in the elective Senior Management Service Optional Annuity Program for state senior managers or to withdraw from the FRS if employed by non-state employers. This class became effective February 1, 1987, and members of an existing retirement system and members of the Special Risk or Special Risk Administrative Support Classes who were employed prior to February 1, 1987 could elect to remain in such system or class.

Deferred Retirement Option Program – allows members of the Defined Benefit Program of the FRS in any of the above five classes to elect to retire and have their FRS benefits accumulate in the FRS Trust Fund, earning interest, while the member continues to work for an FRS employer. DROP membership is for a specific and limited period.

(Sections 121.021(12), 121.0515, 121.052, 121.055, 121.091 (13))

Contributions

From January 1, 1975, for the state and for school boards, and from October 1, 1975, for other agencies, through June 30, 2011, the total cost of the System was paid by the participating employers.

Beginning July 1, 2011, all Defined Benefit and IP members, except those participating in DROP, are required to pay member contributions equal to 3% of compensation. TRS members already pay required employee contributions. Member contributions do not accrue interest except for TRS members.

(Section 121.071 (2))

The employer contribution rates enacted for the July 1, 2014 – June 30, 2015 plan year are as follows:

	Regular	Special Risk	Special Risk Administrative	Elected Officers Class Judicial	Elected Officers Class Leg-Atty-Cab	Elected Officers Class Local	Senior Management	DROP
Defined Benefit Plan								
- Normal Cost Rate	3.53%	10.76%	3.68%	10.02%	6.14%	8.21%	4.76%	4.30%
- UAL Rate	<u>3.01</u>	<u>8.95</u>	<u>51.44</u>	<u>23.69</u>	<u>50.85</u>	<u>46.01</u>	<u>20.03</u>	<u>6.72</u>
- Total DB Rate	6.54	19.71	55.12	33.71	56.99	54.22	24.79	11.02
Investment Plan								
- Employer Rate	3.55%	12.33%	5.40%	10.96%	6.79%	8.75%	4.93%	n/a
- UAL Rate	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>n/a</u>
- Total IP Rate	3.55	12.33	5.40	10.96	6.79	8.75	4.93	n/a
Blended Uniform Contribution Rates								
- Normal Cost Rate	3.53%	11.01%	4.18%	10.10%	6.30%	8.36%	4.80%	4.30%
- UAL Rate	<u>2.54</u>	<u>7.51</u>	<u>36.59</u>	<u>21.77</u>	<u>38.66</u>	<u>33.58</u>	<u>15.04</u>	<u>6.72</u>
- Total Rate	6.07	18.52	40.77	31.87	44.96	41.94	19.84	11.02

The above rates exclude the 0.03% administrative charge for Investment Plan administration and education (except DROP), and the 1.26% for the financing of the health insurance subsidy described later in this part.

(Section 121.71)

Compensation

“Compensation” means the monthly salary paid a member by his or her employer for work performed arising from that employment.

(a) Compensation shall include:

1. Overtime payments paid from a salary fund.
2. Accumulated annual leave payments.
3. Payments in addition to the employee's base rate of pay if all the following apply:
 - a. The payments are paid according to a formal written policy that applies to all eligible employees equally;
 - b. The policy provides that payments shall commence no later than the 11th year of employment;
 - c. The payments are paid for as long as the employee continues his or her employment; and
 - d. The payments are paid at least annually.

4. Amounts withheld for tax sheltered annuities or deferred compensation programs, or any other type of salary reduction plan authorized under the Internal Revenue Code.
 5. Payments made in lieu of a permanent increase in the base rate of pay, whether made annually or in 12 or 26 equal payments within a 12-month period, when the member's base pay is at the maximum of his or her pay range. When a portion of a member's annual increase raises his or her pay range and the excess is paid as a lump sum payment, such lump sum payment shall be compensation for retirement purposes.
- (b) Compensation for a member participating in the pension plan or the investment plan of the Florida Retirement System may not include:
1. Fees paid professional persons for special or particular services or salary payments made from a faculty practice plan authorized by the Board of Governors of the State University System for eligible clinical faculty at a college in a state university that has a faculty practice plan; or
 2. Any bonuses or other payments prohibited from inclusion in the member's average final compensation.
- (c) For all purposes under this chapter, the member's compensation or gross compensation contributed as employee-elective salary reductions or deferrals to any salary reduction, deferred compensation, or tax-sheltered annuity program authorized under the Internal Revenue Code shall be deemed to be the compensation or gross compensation which the member would receive if he or she were not participating in such program and shall be treated as compensation for retirement purposes under this chapter. Any public funds otherwise paid by an employer into an employee's salary reduction, deferred compensation, or tax-sheltered annuity program on or after July 1, 1990 (the date as of which all employers were notified in writing by the division to cease making contributions to the System Trust Fund based on such amounts), shall be considered a fringe benefit and shall not be treated as compensation for retirement purposes under this chapter. However, if an employer was notified in writing by the division to cease making such contributions as of a different date, that employer shall be subject to the requirements of said written notice.
- (d) For any person who first becomes a member on or after July 1, 1996, compensation for any plan year shall not include any amounts in excess of the s. 401(a)(17), Internal Revenue Code limitation (as amended by the Omnibus Budget Reconciliation Act of 1993), which limitation of \$150,000 effective July 1, 1996, shall be adjusted as required by federal law for qualified government plans and shall be further adjusted for changes in the cost of living in the manner provided by s. 401(a)(17)(B), Internal Revenue Code. For any person who first became a member prior to July 1, 1996, compensation for all plan years beginning on or after July 1, 1990, shall not include any amounts in excess of the compensation limitation (originally \$200,000) established by s. 401(a)(17), Internal Revenue Code prior to the Omnibus Budget Reconciliation Act of 1993, which limitation shall be adjusted for changes in the cost of living since 1989, in the manner provided by s. 401(a)(17) of the Internal Revenue Code of 1991. This limitation, which has been part of the Florida Retirement System since plan years beginning on or after July 1, 1990, shall be adjusted as required by federal law for qualified government plans.

"Annual compensation" means the total compensation paid a member during a year. A "year" is 12 continuous months.

(Section 121.021(22) and (23))

FRS Defined Benefit Program

Normal Retirement Benefit

Eligibility – Members initially enrolled before July 1, 2011 (Tier I)

- Regular Class
 1. 30 years of creditable service at any age.
 2. Age 62 and 6 or more years of creditable service.
 (Section 121.021(29)(a)(1))
- Special Risk Class
 1. 25 years of special risk service at any age; or
 2. Age 55 and 6 or more years of special risk service; or
 3. Age 52 and 25 years of creditable service, including special risk service and up to a maximum of four years of active duty wartime military service credit.
 4. 30 years of any creditable service, at any age, or age 62 and 6 or more years of creditable service (same requirement as the Regular Class).
 (Section 121.021(29)(b)(1))
- Special Risk Administrative Support Class
 (with six or more years of Special Risk Class service, the same requirements as apply to the Special Risk Class, otherwise same as apply to the Regular Class)
 (Section 121.021(29)(b)(1))
- Elected Officers' Class
 (same requirements as apply to Regular Class)
 (Section 121.021(29)(a)(1))
- Senior Management Service Class
 (same requirements as apply to Regular Class)
 (Section 121.021(29)(a)(1))

Eligibility – Members initially enrolled on and after July 1, 2011 (Tier II)

- Regular Class
 1. 33 years of creditable service at any age.
 2. Age 65 and 8 or more years of creditable service.
 (Section 121.021(29)(a)(2))
- Special Risk Class
 1. 30 years of special risk service at any age; or
 2. Age 60 and 8 or more years of special risk service; or
 3. 33 years of any creditable service, at any age, or age 65 and 8 or more years of creditable service (same requirement as the Regular Class).
 (Section 121.021(29)(b)(2))
- Special Risk Administrative Support Class
 (with eight or more years of Special Risk Class service, the same requirements as apply to the Special Risk Class, otherwise same as apply to the Regular Class)

(Section 121.021(29)(b)(2))

- Elected Officers' Class

(same requirements as apply to Regular Class)

(Section 121.021(29)(a)(2))

- Senior Management Service Class

(same requirements as apply to Regular Class)

(Section 121.021(29)(a)(2))

Normal Form

Straight life benefit (Option 1), payable on the last state working day of each month, with a guarantee that benefits paid will at least equal member contributions.

(Section 121.091(1))

Optional Forms

10-year certain and life benefit (Option 2), 100% joint and survivor benefit (Option 3), or 66-2/3% joint and survivor benefit (Option 4). If the joint annuitant is the member's non-disabled child, payment ceases upon attainment of the joint annuitant's 25th birthday under the 100% and 66- 2/3% joint and survivor benefit.

(Section 121.091(6))

Dual Retirement

In the event a member accumulates retirement benefits to commence at different normal retirement ages by virtue of having performed duties for an employer which would entitle him or her to benefits as both a Special Risk Class member and a member of another class, the amount of the benefits payable shall be computed separately with respect to each such age, and the sum of such computed amounts shall be paid. Note that this does not apply to a Special Risk Administrative Support Class member with at least 6 years of Special Risk Class Membership (8 years for members enrolled on or after July 1, 2011) when the Special Risk and Special Risk Administrative Support Classes are the only memberships held because such a member is treated as a Special Risk Class member.

(Section 121.091(2))

Regular Benefit Amount

The monthly FRS allowance is the product of:

1. Average monthly compensation
 - a. For members initially enrolled before July 1, 2011, the average of the highest five plan years of creditable service;
 - b. For members initially enrolled on or after July 1, 2011, the average of the highest eight plan years of creditable service;
2. Creditable service during the applicable period; and
3. The appropriate benefit percentage for periods of service.

All benefits are limited to 100% of average monthly compensation.

(Sections 121.021(17), (24) and (25), 121.091(1))

The appropriate benefit percentages are as follows:

- For Members initially enrolled before July 1, 2011, for Creditable Service as a Regular Class member Subsequent to November 30, 1970:

Retirement at:	Percentage
Age 62 with 6 years of creditable service, or 30 years of creditable service	1.60%
Age 63 with 6 years of creditable service, or 31 years of creditable service	1.63
Age 64 with 6 years of creditable service, or 32 years of creditable service	1.65
Age 65 with 6 years of creditable service, or 33 years of creditable service	1.68

- For Members initially enrolled on or after July 1, 2011, for Creditable Service as a Regular Class member Subsequent to November 30, 1970:

Retirement at:	Percentage
Age 65 with 8 years of creditable service, or 33 years of creditable service	1.60%
Age 66 with 8 years of creditable service, or 34 years of creditable service	1.63
Age 67 with 8 years of creditable service, or 35 years of creditable service	1.65
Age 68 with 8 years of creditable service, or 36 years of creditable service	1.68

(Section 121.091(1))

Service as a Special Risk Class member:

Retirement on or After July 1, 2001 with Service Performed During:	Percentage
December 1, 1970 to September 30, 1974	2.00%
October 1, 1974 and thereafter	3.00

(Section 121.091(1))

- For Members initially enrolled before July 1, 2011, for Creditable Service as a Special Risk Administrative Support Class member Subsequent to November 30, 1970:

Retirement at:	Percentage
Age 55 with 6 years of creditable service, or age 52 with 25 years of creditable service, which may include up to four years of active duty wartime military service, or 25 years of creditable service	1.60%
Age 56 with 6 years of creditable service, or age 53 with 26 years of creditable service, which may include up to four years of active duty wartime military service, or 26 years of creditable service	1.63
Age 57 with 6 years of creditable service, or age 54 with 27 years of creditable service, which may include up to four years of active duty wartime military service, or 27 years of creditable service	1.65
Age 58 with 6 years of creditable service, or age 55 with 28 years of creditable service, which may include up to four years of active duty wartime military service, or 28 years of creditable service	1.68

- For Members initially enrolled on or after July 1, 2011, for Creditable Service as a Special Risk Administrative Support Class member Subsequent to November 30, 1970:

Retirement at:	Percentage
Age 60 with 8 years of creditable service, or age 57 with 30 years of creditable service, which may include up to four years of active duty wartime military service, or 30 years of creditable service	1.60%
Age 61 with 8 years of creditable service, or age 58 with 31 years of creditable service, which may include up to four years of active duty wartime military service, or 31 years of creditable service	1.63
Age 62 with 8 years of creditable service, or age 59 with 32 years of creditable service, which may include up to four years of active duty wartime military service, or 32 years of creditable service	1.65
Age 63 with 8 years of creditable service, or age 60 with 33 years of creditable service, which may include up to four years of active duty wartime military service, or 33 years of creditable service	1.68

(Section 121.091(1))

- For Service as an Elected Officers' Class member:
3% for each year of creditable service in such class, except 3-1/3% for service in the judicial class.
Military service credit is at the rate for Regular Class members.
(Sections 121.052(5)(a) and (d), 121.091(1))
- For Service as a Senior Management Service Class member:
2% for each year of creditable service in such class, after January 31, 1987.
(Section 121.055(4)(d))

Early Retirement

Eligibility

For members initially enrolled before July 1, 2011, six years of creditable service for all classes of membership.

For members initially enrolled on or after July 1, 2011, eight years of creditable service for all classes of membership.

(Section 121.021(30))

Benefit Amount

The normal retirement benefit accrued to the date of early retirement, reduced by 5/12% for each month that the early retirement date precedes the normal retirement date based upon age. The normal retirement date is as follows:

1. Special Risk Class members:
 - a. Initially enrolled before July 1, 2011: Age 55
 - b. Initially enrolled on or after July 1, 2011: Age 60
2. Members in all other Classes
 - a. Initially enrolled before July 1, 2011: Age 62
 - b. Initially enrolled on or after July 1, 2011: Age 65

(Sections 121.021(30), 121.091(3))

Non-Duty Disability Retirement

Eligibility

Members are eligible if totally and permanently disabled after completing at least 8 years of creditable service (or after 6 years if disability retirement is ordered for a judge by the Supreme Court).

Benefit Amount

Same as for normal retirement, but based on average monthly compensation and creditable service to the date of disability retirement.

Minimum Benefit Amount

25% of average monthly compensation.

If the Supreme Court orders disability retirement for a judge, the minimum is two-thirds of compensation at disability. This benefit for a defined benefit plan member is not paid from the FRS Trust Fund. This

benefit for an Investment Plan member is paid from the FRS Trust Fund after the member's IP account balance is transferred to the FRS Trust Fund.

(Section 121.091(4))

Line-of-Duty Disability

Eligibility

Members are eligible if totally and permanently disabled during the actual performance of duty. There is no service credit requirement.

Benefit Amount

Same as for normal retirement, but based on average monthly compensation and creditable service to the date of disability retirement.

Minimum Benefit Amount

42% of average monthly compensation, except for the Special Risk and the Special Risk Administrative Support classes whose members are entitled to 65% of average monthly compensation.

If the Supreme Court orders disability retirement for a judge, the minimum is two-thirds of compensation at disability. This benefit for a defined benefit plan member is not paid from the FRS Trust Fund.

(Section 121.091(4))

Post-Retirement Death Benefits

Based on the optional form elected.

Non-Duty Pre-Retirement Death Benefits

Eligibility

Employment is terminated by death after vested for all classes of membership.

Benefit Amount

The normal or early retirement benefit amount for which the member would have been eligible had the member retired on his or her date of death and elected the 100% joint and survivor form of payment in favor of his or her beneficiary who is the surviving spouse or other eligible dependent. The monthly benefit is normally payable to the member's beneficiary for the beneficiary's lifetime. If the beneficiary is the member's non-disabled child, payment ceases upon attainment of the beneficiary's 25th birthday.

If the member is more than 10 years away from normal retirement age, the reduction is 5% for each year the member would be younger than the normal retirement age at retirement. There are exceptions if within 10 years of normal retirement:

1. For members initially enrolled before July 1, 2011 who were within 10 years of normal retirement eligibility, the reduction for early retirement is applied from the earlier of age 62 (age 55 for Special Risk Class and Special Risk Administrative Support Class members) or the date on which the member would have completed 30 years of creditable service, had he or she continued employment.
2. For members initially enrolled on or after July 1, 2011 who were within 10 years of normal retirement eligibility, the reduction for early retirement is applied from the earlier of age 65 (age 60 for Special

Risk Class and Special Risk Administrative Support Class members) or the date on which the member would have completed 33 years of creditable service, had he or she continued employment. The value of this benefit may not be less than the member's accumulated contributions, if any.

(Sections 121.091(3) and (7))

Line-of-Duty Pre-Retirement Death Benefits

Eligibility

Member died during the actual performance of duty. There is no service credit requirement.

Benefit Amount

The surviving spouse will receive one-half of the member's monthly compensation at death. If the spouse dies, or if there is no surviving spouse, the monthly benefits continue until the youngest child is 18.

A surviving spouse may elect to receive a non-duty death benefit in lieu of the duty death benefit.

(Section 121.091(7))

Vesting

Eligibility

For members initially enrolled before July 1, 2011, six years of creditable service for all classes of membership. For members initially enrolled on or after July 1, 2011, eight years of creditable service for all membership classes.

Benefit Amount

The normal or early retirement benefit amount based on average monthly compensation and creditable service to the date of termination.

(Sections 121.021(45), 121.091(5))

DROP – Deferred Retirement Option Program

Eligibility

Vested FRS members are eligible for DROP participation upon attaining eligibility for normal retirement. Deferral of DROP participation for all but K-12 Instructional Personnel is allowed if the eligible participant is enrolled before July 1, 2011 and has completed 30 years of service (or 25 years for Special Risk Class members) and has not reached age 57 (or age 52 for Special Risk Class members). In this case the participant can defer participation in DROP until he reaches age 57 (or age 52 for Special Risk Class members). Deferral of DROP participation for all but K-12 Instructional Personnel is allowed if the eligible participant enrolled on or after July 1, 2011, has completed 33 years of service (or 30 years for Special Risk Class members) and has not reached age 60 (or age 55 for Special Risk Class members). In this case the participant can defer participation in DROP until he reaches age 60 (or age 55 for Special Risk Class members). Instructional Personnel in grades K-12 may defer DROP participation to any age. Participants who reached normal retirement before July 1, 1998 were eligible to participate in DROP for up to 60 months (36 months for Special Risk Class members) beginning July 1, 1998.

Effective July 1, 1998, eligible members can retire without terminating their employment during DROP participation. Monthly retirement benefits will be invested in the FRS Trust Fund, earning tax-deferred

interest while the member continues to work for a maximum of 60 months. The interest credit for those entering the DROP prior to July 1, 2011 is 6.5% annually. For those entering the DROP after that date, it is 1.3% annually. Upon completion of the maximum five-year period, DROP participation ends and participants must terminate employment with all FRS employers. At that time, the participant will receive payment of the accumulated DROP benefits, and begin receiving his FRS monthly retirement benefit (in the same amount as determined at retirement, plus annual cost-of-living increases).

Effective July 1, 2003, participants employed in eligible instructional positions with a district school board, the Florida School for the Deaf and Blind, or a developmental research school can extend their participation beyond their initial 60-month period, for up to an additional 36 months. The employer must approve the request for DROP extension as well as the period of extension granted to an eligible DROP participant, if any, within the 36-month limit.

Disabled While in DROP

Participants that became disabled while participating in DROP will continue to accumulate the same monthly benefit in the FRS Trust Fund until termination. Since the normal retirement benefit commenced upon DROP participation, a disability benefit will not be issued.

Death While in DROP

The designated beneficiary of a participant who dies while participating in DROP will receive all accumulated DROP benefits, and a continuing monthly benefit, if the participant had elected Option 2, 3, or 4. Survivors of DROP participants are not eligible for FRS line-of-duty death benefits.

(Section 121.091 (13))

Return of Employee Contributions

A member who terminates employment but is not eligible to retire, receive a vested retirement allowance, or receive a disability pension will be entitled to a refund of any employee contributions. The beneficiary of a member who passes away before satisfying the requirement for a pre-retirement death benefit will be entitled to a refund of any employee contributions made by the member. No interest is credited on employee contribution accounts.

A vested terminated participant may elect to receive a return of employee contributions in lieu of a retirement benefit.

(Sections 121.071(2)(b), 121.091(7)(a), Sections 121.091(5)(a) and (c))

Cost-of-Living Adjustment

Senate Bill 2100 (2011) eliminated post-retirement benefit increases on benefits earned on and after July 1, 2011. Benefits earned before July 1, 2011 (except for the health insurance subsidy) will receive post-retirement benefit increases of 3% per year. Tier II members (those initially enrolled on and after July 1, 2011) will receive no post-retirement benefit increases. Tier I members (those initially enrolled before July 1, 2011) will receive post-retirement benefit increases equal to 3% per year multiplied by a fraction, the numerator of which is service through June 30, 2011 and the denominator of which is total service at retirement. Cost-of-Living Adjustments take effect annually on July 1. A pro-rated rate may apply in the initial year of applicability.

(Section 121.101)

Additional Benefit Amount

In addition, members may receive an additional retirement allowance under the pre-1971 existing systems. The benefit is a percentage of average compensation times the creditable service in that system up to November 30, 1970. The system percentages are:

State and County Officers and Employees' Retirement System:

2.00% for creditable service rendered under Division A prior to Social Security coverage; and 1.50% for creditable service rendered under Division B subsequent to Social Security coverage.

Teachers Retirement System:

Plan E: 2.00%

(Sections 121.091(1)(c), 122.28, 238.07(7)(a))

Minimum Benefit

Eligibility

The month following attainment of age 65 by a pensioner or, in the case of a beneficiary receiving the survivor's portion of a member's benefit, the 65th anniversary of the deceased member's birth. The member must have earned at least 10 years of creditable service and retired under normal retirement.

Benefit Amount

An eligible benefit recipient will receive a benefit adjustment to bring the benefit to the calculated minimum benefit. Effective July 1, 2014, the minimum monthly benefit is \$28.68 multiplied by years of creditable service prior to application of the reduction factor for electing an optional form of payment. For retirements on or after July 1, 1987, creditable service for the minimum benefit calculation does not include any service earned on or after that date.

(Section 112.362)

Investment Plan (IP)

The Investment Plan (IP) is a defined contribution plan offered to eligible members as an alternative to the FRS Defined Benefit Program. The plan is authorized under sec. 401(a) of the Internal Revenue Code.

Benefits

Under the IP, benefits accrue in individual member accounts funded by employer and employee contributions made on or after July 1, 2011, and earnings thereon. Benefits are provided through employee-directed investments offered by approved investment providers. Vested benefits are payable upon termination or death as a lump-sum distribution, direct rollover distribution, or periodic distribution. In addition to normal benefits and death benefits, the plan also provides disability coverage as described below.

(Sections 121.4501, 121.591)

Contributions

The employer contributions deposited in each participant's IP account are based upon allocation rates established by law for each membership class. This statutorily prescribed percentage of the participant's gross compensation for the reporting month is deducted from the total amount paid by the employer on behalf of all members in the same class of membership based on the uniform contribution rate established by law.

Current IP allocation rates are set forth in the following charts. The allocation rates shown in the first chart below do not include the 0.03% charge for IP administration and education, the separate employer contribution assessed to fund the IP disability program, or the contribution of 1.26% for the financing of the health insurance subsidy described later in this part.

(Sections 121.71, 121.72)

Effective July 1, 2012, the employer allocations to the IP accounts are based on contribution rates as follows:

Classification	2014-2015 Plan Year Rates
Regular	3.30%
Special Risk	11.00
Special Risk Administrative Support	4.95
Elected Officers'	
- Judicial	10.23
- Leg/Atty/Cab	6.38
- Local	8.34
Senior Management Service	4.67

The employer contribution rates to fund the disability benefit under the IP are as follows:

Classification	2014-2015 Plan Year Rates
Regular	0.25%
Special Risk	1.33
Special Risk Administrative Support	0.45
Elected Officers'	
- Judicial	0.73
- Leg/Atty/Cab	0.41
- Local	0.41
Senior Management Service	0.26

(Section 121.73)

Non-Duty Disability Retirement

Eligibility

Investment Plan participants who have completed at least eight years of creditable service (or six years of creditable service if disability retirement is ordered for a judge by the Supreme Court) are eligible for regular disability benefits if they become totally and permanently disabled due to injury or illness suffered while actively employed in an FRS-covered position. Upon approval for disability retirement, the IP participant may choose either to retain his/her IP account balance or to surrender his/her account balance to the Defined Benefit Program and receive guaranteed lifetime monthly disability benefits, assuming the member remains disabled.

Benefit Amount

If the disabled IP participant chooses to retain his/her account balance, he/she may elect to receive the normal benefit payable under the IP. If he/she elects to surrender the account balance and receive lifetime monthly disability benefits, the amount of each monthly payment is calculated in the same manner as provided for regular disability retirement under the Defined Benefit Program and is subject to the same threshold benefit amounts.

(Sections 121.091(4), 121.591(1) and (2))

Line-of-Duty Disability

Eligibility

IP participants are eligible for in-line-of-duty disability benefits if they become totally and permanently disabled due to injury or illness suffered during the actual performance of duty while actively employed in an FRS-covered position. There is no service credit requirement for in-line-of-duty disability benefits. Upon approval for disability retirement, the IP member may choose either to retain his/her IP account balance or to surrender his/her account balance to the Defined Benefit Program and receive guaranteed lifetime monthly disability benefits, assuming the member remains disabled.

Benefit Amount

If the disabled IP participant elects to retain his/her account balance, he/she may elect to receive the normal benefit payable under the IP. If he/she elects to surrender the account balance and receive lifetime monthly disability benefits, the amount of each monthly payment is calculated in the same manner as provided for line-of-duty disability retirement under the Defined Benefit Program, and is subject to the same threshold benefit amounts.

(Sections 121.091(4), 121.591(1) and (2))

Teachers' Retirement System (TRS)

The benefit and contribution provisions of the Statutes for this closed system are set forth in Chapter 238 of the Florida Statutes. Certain provisions are from other sections of the Florida Statutes.

Effective Date

The effective date of the Retirement System was July 1, 1939.

(Section 238.02)

Membership

All employees who were teachers in public schools, employees of professional non-profit teachers associations, county superintendents, Department of Education employees and the staff of the Teachers' Retirement System, and who were employed prior to December 1, 1970, are members of the Teachers' Retirement System. TRS retirees are included with the Regular Membership Class in the valuation.

State and County Officers and Employees' Retirement System (SCOERS)

The benefit and contribution provisions of the Statutes are set forth in Chapter 122 of the Florida Statutes. Certain provisions are drawn from other sections of the Florida Statutes. This is a closed system that no longer includes any members in the high hazard or legislative categories. Effective with the July 1, 2013 valuation, there are no longer any actively employed members of this system. SCOERS retirees are included with the Regular Membership Class in the valuation.

Effective Date

The effective date of the Retirement System was July 1, 1955.

(Section 122.01(2))

Membership

All full-time employees of the state and its counties not covered by another system who were employed prior to December 1, 1970.

Institute of Food and Agricultural Sciences Supplemental Retirement Program (IFAS)

The benefit and contribution provisions of the Statutes are set forth in Chapter 121 of the Florida Statutes. Certain provisions are drawn from other sections of the Florida Statutes. This is a closed system. IFAS retirees are included with the Regular Membership Class in the valuation.

Effective Date

The effective date of the Supplemental Retirement Program was July 1, 1985.

(Section 121.40)

Membership

Employees hired on or before July 1, 1983 who:

- a. hold both state and federal appointments while employed at the Institute,
- b. are not entitled to any benefit from a state-supported retirement system or Social Security based on service as an employee of the Institute, and
- c. are participants in the Federal Civil Service Retirement System.

Appendix C: Membership Data

This valuation is based upon the membership of the System as of July 1, 2014.

The membership of the System includes employees of the State of Florida and participating political subdivisions. The membership is divided into several categories by membership class and subclass.

Tables C-1 through C-5 present distributions of annuitants (including beneficiaries of deceased members), and potential annuitants (terminated vested members). Shown in the tables are the numbers of persons receiving benefits and the total annual benefits.

Table C-6 summarizes the DROP membership and provides total annual benefits.

Table C-7 presents a summary by System of active membership, payroll, and accumulated employee contributions.

Tables C-8 through C-17 contain summaries of the active members in each category of membership. Values shown in the tables are the numbers of members and their average annual salaries. Table C-17 is the grand total of active members included in this valuation.

Table C-1
Florida Retirement System
Annuitants at July 1, 2014
Regular and Early Retirement by Age

Age		Number of Persons	Annual Benefits (in Thousands)
Under	50	3,411	\$40,179
50	to 54	5,734	119,810
55	to 59	20,268	425,180
60	to 64	53,359	1,165,853
65	to 69	87,122	1,813,799
70	to 74	68,984	1,347,840
75	to 79	46,258	870,624
80	& Up	61,237	1,143,584
Total		346,373	\$6,926,869

Table C-2
Florida Retirement System
Annuitants at July 1, 2014
Disability Retirement by Age

Age		Number of Persons	Annual Benefits (in Thousands)
Under	50	791	\$12,175
50	to 54	1,409	21,390
55	to 59	2,487	36,017
60	to 64	3,199	46,134
65	to 69	2,744	39,895
70	to 74	1,741	24,628
75	to 79	813	10,646
80	& Up	675	7,944
Total		13,859	\$198,829

Table C-3
Florida Retirement System
Potential Annuitants at July 1, 2014
Vested Terminated Members by Age for the Regular,
Senior Management Service, and Elected Officers' Classes

Age		Number of Persons	Annual Benefits (in Thousands) ¹
Under	30	562	\$1,426
30	to 34	3,591	14,320
35	to 39	7,537	35,610
40	to 44	12,559	66,340
45	to 49	15,523	94,296
50	to 54	21,912	135,539
55	to 59	18,097	123,895
60	& Up	20,868	109,544
Total		100,649	\$580,970

¹ Deferred to Age 62

Table C-4
Florida Retirement System
Potential Annuitants at July 1, 2014
Vested Terminated Members by Age for the
Special Risk & Special Risk Administrative Support Classes

Age		Number of Persons	Annual Benefits (in Thousands) ²
Under	30	65	\$475
30	to 34	345	3,172
35	to 39	748	7,697
40	to 44	1,461	17,070
45	to 49	1,487	19,384
50	to 54	1,152	16,457
55	to 59	399	5,366
60	& Up	444	4,901
Total		6,101	\$74,522

² Deferred to Age 55

Table C-5
Florida Retirement System
Annuitants and Potential Annuitants at July 1, 2014
All Types of Retirement by System

System	Annuitants	Potential Annuitants	Total
Number of Persons			
Regular	323,154	99,193	422,347
Senior Management Service	3,518	1,098	4,616
Special Risk	31,101	6,085	37,186
Special Risk Administrative	170	16	186
EOC: Judicial	771	43	814
EOC: Legislative/Attorneys/Cabinet	209	89	298
EOC: Local	1,309	226	1,535
Total	360,232	106,750	466,982
Annual Benefits (in Thousands)			
Regular	\$5,687,793	\$555,335	\$6,243,128
Senior Management Service	163,731	20,243	183,974
Special Risk	1,157,901	74,408	1,232,309
Special Risk Administrative	6,168	114	6,282
EOC: Judicial	64,124	1,979	66,103
EOC: Legislative/Attorneys/Cabinet	6,575	1,065	7,640
EOC: Local	39,406	2,347	41,753
Total	\$7,125,698	\$655,491	\$7,781,189

Table C-6
Florida Retirement System
Annuitants at July 1, 2014
DROP Members

Age	Number of Persons	Annual Benefits (in Thousands)
Under 50	534	\$34,571
50 to 54	3,292	163,157
55 to 59	9,185	331,748
60 to 64	15,771	393,904
65 to 69	8,926	174,966
70 to 74	298	5,141
75 to 79	40	430
80 & Up	9	101
Total	38,055	\$1,104,018

Table C-7
Florida Retirement System
Summary of Active Members at July 1, 2014

System	Number of Persons	Annual Salary (in Thousands) ¹	Accumulated Employee Contributions (in Thousands)
Regular	447,162	\$18,037,274	\$1,468,734
Senior Management Service	5,490	473,008	42,010
Special Risk	57,366	3,225,469	271,469
Special Risk Administrative	65	3,140	271
EOC: Judicial	705	100,514	8,715
EOC: Legislative/Attorneys/Cabinet	113	6,519	610
EOC: Local	811	41,893	3,679
Teachers' Retirement System (TRS)	18	1,773	6,135
Institute of Food and Agricultural Sciences (IFAS)	21	2,043	0
Total	511,751	\$21,891,633	\$1,801,623

¹ The salary shown in Tables C-7 through C-17 represents the salaries of the FRS DB plan members on July 1, 2014. The payroll on which normal costs are determined (\$22,400,477,000) equals the salaries for these DB plan members (excluding TRS and IFAS), adjusted to the middle of the plan year. The payroll on which UAL costs are charged additionally includes the payroll of certain other groups, and is described in Section 4 of the report.

Table C-8
Florida Retirement System
Member Counts and Average Salaries at July 1, 2014
Regular Class

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20	798	1										799
20 to 24	11,843	216	1		1							12,061
25 to 29	24,759	6,273	188									31,220
30 to 34	16,540	18,353	6,024	151								41,068
35 to 39	11,905	13,771	15,083	4,321	104							45,184
40 to 44	11,627	12,750	14,165	13,157	4,131	199						56,029
45 to 49	10,488	12,453	13,143	11,961	11,210	4,839	153					64,247
50 to 54	9,217	12,137	13,642	12,586	11,213	12,598	2,844	45				74,282
55 to 59	6,456	10,026	12,259	11,897	10,873	11,819	3,842	451	11			67,634
60 to 64	3,089	6,762	7,616	6,840	6,623	6,651	1,444	468	115	3		39,611
65 & Up	<u>1,622</u>	<u>3,624</u>	<u>3,927</u>	<u>2,446</u>	<u>1,439</u>	<u>957</u>	<u>437</u>	<u>296</u>	<u>214</u>	<u>57</u>	<u>8</u>	<u>15,027</u>
Total Count	108,344	96,366	86,048	63,359	45,594	37,063	8,720	1,260	340	60	8	447,162

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20	8,369	16,071										8,379
20 to 24	20,589	20,052	54,319		18,118							20,582
25 to 29	30,681	33,871	34,488									31,345
30 to 34	30,848	39,002	41,063	41,731								36,030
35 to 39	29,602	38,466	44,919	46,787	48,186							39,103
40 to 44	29,011	36,604	43,301	49,847	52,964	51,695						41,091
45 to 49	28,521	35,046	40,968	46,541	55,275	54,623	54,650					42,383
50 to 54	28,313	34,762	39,128	43,488	51,853	58,634	58,853	57,801				43,807
55 to 59	28,282	34,742	39,381	42,413	49,889	56,127	62,375	59,457	49,902			44,225
60 to 64	26,279	34,996	39,840	43,144	49,405	55,196	61,334	62,875	63,873	42,713		43,830
65 & Up	<u>18,777</u>	<u>28,184</u>	<u>34,784</u>	<u>38,138</u>	<u>45,609</u>	<u>51,143</u>	<u>64,649</u>	<u>75,601</u>	<u>80,767</u>	<u>87,731</u>	<u>93,113</u>	<u>36,648</u>
Avg. Annual Salary	28,284	36,055	41,137	45,160	51,765	56,463	61,032	64,460	74,054	85,480	93,113	40,337

Table C-9
Florida Retirement System
Member Counts and Average Salaries at July 1, 2014
Special Risk Class

Count												
Age	Years of Service											
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20	12	2										14
20 to 24	2,720	49	1									2,770
25 to 29	4,597	2,829	40									7,466
30 to 34	2,386	4,511	1,987	29								8,913
35 to 39	1,245	2,755	3,315	1,251	23							8,589
40 to 44	840	2,026	2,835	3,154	1,489	57						10,401
45 to 49	598	1,293	1,703	2,131	2,656	1,023	15					9,419
50 to 54	386	862	1,035	1,111	1,597	1,037	86					6,114
55 to 59	186	500	532	362	358	278	100	12				2,328
60 to 64	48	226	274	193	172	130	27	14	2			1,086
65 & Up	9	57	67	61	36	19	10	6	1			266
Total Count	13,027	15,110	11,789	8,292	6,331	2,544	238	32	3			57,366

Average Salary (\$)												
Age	Years of Service											
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20	25,914	34,388										27,124
20 to 24	33,952	39,021	48,235									34,047
25 to 29	38,566	46,093	48,232									41,470
30 to 34	39,411	52,452	58,833	59,853								50,408
35 to 39	39,142	53,435	62,945	64,803	70,302							56,735
40 to 44	39,646	52,307	63,364	68,602	73,167	76,120						62,356
45 to 49	42,381	51,345	61,750	67,150	75,994	78,320	79,788					66,159
50 to 54	49,554	53,272	58,969	63,936	72,598	74,909	78,772					65,016
55 to 59	43,934	51,700	58,729	58,118	65,307	68,581	73,062	94,121				58,928
60 to 64	42,932	50,445	54,552	54,398	66,431	66,412	77,565	76,848	120,105			57,438
65 & Up	<u>38,949</u>	<u>50,396</u>	<u>54,411</u>	<u>62,412</u>	<u>64,959</u>	<u>75,220</u>	<u>76,038</u>	<u>88,488</u>	<u>61,796</u>			<u>59,385</u>
Avg. Annual Salary	38,464	51,265	61,346	66,166	73,525	75,185	76,185	85,508	100,668			56,226

Table C-10
Florida Retirement System
Member Counts and Average Salaries at July 1, 2014
Special Risk Administrative Support Class

Count												
Age	Years of Service											
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29	2	1										3
30 to 34		2	4									6
35 to 39			1	5								6
40 to 44			3	14	3							20
45 to 49		1	1		5	4						11
50 to 54			2	2	7	3						14
55 to 59			1		1							2
60 to 64			1	1	1							3
65 & Up												
Total Count	2	4	13	22	17	7						65

Average Salary (\$)												
Age	Years of Service											
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29	34,629	22,704										30,654
30 to 34		32,233	38,331									36,298
35 to 39			39,466	47,913								46,505
40 to 44			38,894	53,645	83,313							55,883
45 to 49		37,239	50,223		44,924	45,525						44,926
50 to 54			39,208	41,444	48,782	71,311						51,193
55 to 59			38,602		43,277							40,940
60 to 64			55,210	43,649	42,310							47,056
65 & Up												
Avg. Annual Salary	34,629	31,102	40,917	50,779	53,036	56,576						48,313

Table C-11
Florida Retirement System
Member Counts and Average Salaries at July 1, 2014
Elected Officers' Class: Judicial Subclass

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29												
30 to 34												
35 to 39	4	5	4									13
40 to 44	10	14	19	16								59
45 to 49	13	22	26	24	18							103
50 to 54	12	31	27	25	24	24						143
55 to 59	17	26	27	47	33	35	22					207
60 to 64	2	21	22	17	31	25	7					125
65 & Up	1	25	18	4	5	2						55
Total Count	59	144	143	133	111	86	29					705

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29												
30 to 34												
35 to 39	136,030	142,606	141,815									140,339
40 to 44	129,356	143,774	140,173	139,741								139,077
45 to 49	120,268	142,606	143,219	143,943	142,739							140,276
50 to 54	130,161	143,793	144,636	142,045	143,712	142,808						142,324
55 to 59	144,898	144,299	146,814	143,017	142,721	141,287	142,275					143,409
60 to 64	145,830	142,831	145,464	146,778	144,796	143,373	142,478					144,455
65 & Up	137,770	145,185	144,490	145,846	142,641	137,995						144,378
Avg. Annual Salary	133,149	143,761	144,227	143,173	143,514	142,241	142,324					142,573

Table C-12
Florida Retirement System
Member Counts and Average Salaries at July 1, 2014
Elected Officers' Class: Legislators/Attorney/Cabinet Subclass

Count												
Age	Years of Service											
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29	1											1
30 to 34	5	2										7
35 to 39	3	3	4	1								11
40 to 44	4	5	4	2								15
45 to 49	2	3	8	3	2							18
50 to 54	2	2	5		2		1					12
55 to 59	5	4	5	5	2	2	1					24
60 to 64	2	2	2	1	1	2						10
65 & Up	1	3	5	4	1					1		15
Total Count	25	24	33	16	8	4	2			1		113

Average Salary (\$)												
Age	Years of Service											
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29	29,697											29,697
30 to 34	29,697	29,697										29,697
35 to 39	29,697	29,697	29,697	29,697								29,697
40 to 44	29,298	74,150	60,745	91,794								60,967
45 to 49	29,697	29,697	45,221	29,697	141,489							49,018
50 to 54	29,697	29,697	29,697		153,890		153,890					60,745
55 to 59	54,536	29,697	74,391	79,374	153,890	153,890	153,890					80,406
60 to 64	29,697	29,697	29,697	153,890	153,890	153,890						79,374
65 & Up	<u>29,697</u>	<u>29,697</u>	<u>29,697</u>	<u>60,745</u>	<u>41,181</u>					<u>153,890</u>		<u>47,022</u>
Avg. Annual Salary	34,601	38,958	43,996	68,507	136,701	153,890	153,890			153,890		57,689

Table C-13
Florida Retirement System
Member Counts and Average Salaries at July 1, 2014
Elected Officers' Class: Local Subclass

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29	1	1										2
30 to 34	8	5	1									14
35 to 39	10	11	4	2								27
40 to 44	26	11	6	7	5	1						56
45 to 49	21	19	14	13	9	10	1					87
50 to 54	24	22	22	16	11	21	8					124
55 to 59	23	26	37	22	24	18	10	2				162
60 to 64	20	39	26	24	31	7	9	2				158
65 & Up	<u>25</u>	<u>53</u>	<u>34</u>	<u>31</u>	<u>17</u>	<u>17</u>	<u>2</u>	<u>2</u>				<u>181</u>
Total Count	158	187	144	115	97	74	30	6				811

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29	3,000	34,200										18,600
30 to 34	43,794	29,549	96,089									42,442
35 to 39	26,822	46,852	49,407	26,318								38,291
40 to 44	43,563	52,972	61,263	61,994	89,626	95,341						54,649
45 to 49	38,464	44,663	58,056	54,124	64,555	111,776	100,331					57,147
50 to 54	32,419	54,966	46,912	63,359	70,377	87,378	103,168					60,222
55 to 59	35,913	44,217	48,535	45,438	65,653	94,706	101,961	87,398				57,073
60 to 64	31,775	53,257	50,600	58,991	55,816	74,502	64,382	85,763				53,460
65 & Up	<u>14,388</u>	<u>36,608</u>	<u>39,810</u>	<u>46,523</u>	<u>44,519</u>	<u>63,900</u>	<u>33,072</u>	<u>15,136</u>				<u>38,869</u>
Avg. Annual Salary	32,666	45,480	48,410	52,709	60,475	85,953	86,362	62,765				51,656

Table C-14
Florida Retirement System
Member Counts and Average Salaries at July 1, 2014
Senior Management Service Class

Count												
Age	Years of Service											All Years
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	
Under 20												
20 to 24	1											1
25 to 29	454	8										462
30 to 34	318	173	9									500
35 to 39	82	158	159	49	2							450
40 to 44	66	101	172	191	71	7						608
45 to 49	45	74	108	176	275	126	6					810
50 to 54	52	85	97	161	242	333	67					1,037
55 to 59	44	75	98	134	199	272	93	3				918
60 to 64	19	61	82	80	98	132	29	19	1			521
65 & Up	<u>2</u>	<u>39</u>	<u>36</u>	<u>35</u>	<u>33</u>	<u>18</u>	<u>9</u>	<u>7</u>	<u>3</u>		<u>1</u>	<u>183</u>
Total Count	1,083	774	761	826	920	888	204	29	4		1	5,490

Average Salary (\$)												
Age	Years of Service											All Years
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	
Under 20												
20 to 24	31,515											31,515
25 to 29	42,767	51,255										42,914
30 to 34	47,119	55,825	68,329									50,513
35 to 39	59,925	60,998	71,594	74,790	110,713							66,269
40 to 44	68,932	76,613	78,950	86,390	84,722	66,788						80,346
45 to 49	82,872	84,686	88,240	88,311	97,115	96,392	78,999					91,845
50 to 54	86,800	93,806	87,591	96,717	100,901	100,868	102,710					97,824
55 to 59	107,316	102,444	96,415	97,970	103,040	106,332	110,877	121,746				103,579
60 to 64	99,099	101,784	102,075	91,917	114,097	111,485	133,563	134,946	98,894			107,963
65 & Up	<u>98,541</u>	<u>108,233</u>	<u>116,537</u>	<u>110,118</u>	<u>120,119</u>	<u>131,729</u>	<u>155,394</u>	<u>171,552</u>	<u>101,796</u>		<u>341,435</u>	<u>120,486</u>
Avg. Annual Salary	54,423	77,257	86,226	91,543	101,100	103,842	112,446	142,417	101,071		341,435	86,158

Table C-15
Florida Retirement System
Member Counts and Average Salaries at July 1, 2014
TRS – Teachers' Retirement System

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29												
30 to 34												
35 to 39												
40 to 44												
45 to 49												
50 to 54												
55 to 59												
60 to 64												
65 & Up									8	8	2	18
Total Count									8	8	2	18

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29												
30 to 34												
35 to 39												
40 to 44												
45 to 49												
50 to 54												
55 to 59												
60 to 64												
65 & Up									90,921	101,455	117,095	98,511
Avg. Annual Salary									90,921	101,455	117,095	98,511

Table C-16
Florida Retirement System
Member Counts and Average Salaries at July 1, 2014
IFAS – Institute of Food and Agricultural Sciences

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29												
30 to 34												
35 to 39												
40 to 44												
45 to 49												
50 to 54												
55 to 59						1	1					2
60 to 64						8	5					13
65 & Up						<u>5</u>	<u>1</u>					<u>6</u>
Total Count						14	7					21

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20												
20 to 24												
25 to 29												
30 to 34												
35 to 39												
40 to 44												
45 to 49												
50 to 54												
55 to 59						63,035	90,524					76,780
60 to 64						110,123	79,675					98,412
65 & Up						<u>109,368</u>	<u>62,989</u>					<u>101,638</u>
Avg. Annual Salary						106,490	78,841					97,274

Table C-17
Florida Retirement System
Member Counts and Average Salaries at July 1, 2014
Grand Totals of All Active Participants

Count		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20	810	3										813
20 to 24	14,564	265	2		1							14,832
25 to 29	29,814	9,112	228									39,154
30 to 34	19,257	23,046	8,025	180								50,508
35 to 39	13,249	16,703	18,570	5,629	129							54,280
40 to 44	12,573	14,907	17,204	16,541	5,699	264						67,188
45 to 49	11,167	13,865	15,003	14,308	14,175	6,002	175					74,695
50 to 54	9,693	13,139	14,830	13,901	13,096	14,016	3,006	45				81,726
55 to 59	6,731	10,657	12,959	12,467	11,490	12,425	4,069	468	11			71,277
60 to 64	3,180	7,111	8,023	7,156	6,957	6,955	1,521	503	118	3		41,527
65 & Up	<u>1,660</u>	<u>3,801</u>	<u>4,087</u>	<u>2,581</u>	<u>1,531</u>	<u>1,018</u>	<u>459</u>	<u>311</u>	<u>226</u>	<u>66</u>	<u>11</u>	<u>15,751</u>
Total Count	122,698	112,609	98,931	72,763	53,078	40,680	9,230	1,327	355	69	11	511,751

Average Salary (\$)		Years of Service										
Age	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up	All Years
Under 20	8,629	28,282										8,701
20 to 24	23,085	23,560	51,277		18,118							23,097
25 to 29	32,080	37,679	36,899									33,411
30 to 34	32,183	41,758	45,499	44,651								38,712
35 to 39	30,716	41,184	48,383	51,025	53,099							42,141
40 to 44	30,041	39,134	47,080	53,945	58,686	57,534						44,844
45 to 49	29,608	37,014	43,864	50,291	60,094	59,628	57,901					46,072
50 to 54	29,609	36,648	41,030	45,938	55,487	61,031	60,550	57,801				46,280
55 to 59	29,572	36,302	40,870	43,865	51,607	57,817	64,305	60,865	49,902			45,799
60 to 64	27,078	36,477	41,302	44,308	51,205	56,902	63,451	66,077	65,122	42,713		45,355
65 & Up	<u>18,995</u>	<u>30,226</u>	<u>36,345</u>	<u>39,991</u>	<u>47,972</u>	<u>53,687</u>	<u>66,535</u>	<u>77,620</u>	<u>81,322</u>	<u>90,397</u>	<u>120,048</u>	<u>38,513</u>
Avg. Annual Salary	29,653	38,533	44,053	48,278	55,436	58,930	62,931	66,663	74,964	88,324	120,048	42,778

Appendix D: Projections

Table D-1 presents a projection of total costs of the employers covered by the FRS (exclusive of the Investment Plan) during the five-year period following the actuarial valuation date, July 1, 2014. The contributions shown beginning with plan year 2015-2016 are based on the assumption that the contribution levels calculated in this report are extended throughout the projection period. The contributions shown for plan year 2014-2015 are based on the legislated rates (before blending) on page B-3 of this report.

Table D-2 reflects, for each membership class and DROP, the outstanding UAL balance of all amortization bases combined as of July 1, 2014. The table develops the associated duration of the amortization of the combined amortization bases.

Beginning in the July 1, 1998 actuarial valuation with the emergence of the surplus, all UAL bases in existence as that time were considered to be fully amortized. While the Plan was in surplus, the UAL amortization payment or credit was made from the surplus for certain post-1998 benefit increases and the 1998 and 2003 experience studies prior to any use of the surplus for contribution rate reductions or any other FRS uses. Now that the plan is no longer in surplus, the UAL payment is made by employers as part of the contribution rate.

Table D-3 estimates the available surplus / (UAL payment) for the next three plan years based on Florida law. The estimates are projections of our July 1, 2014 valuation results, and assume experience occurs as stated in our July 1, 2014 valuation.

All three tables reflect that no surplus is available for rate reduction. The amortization methodology recognizes the time value of money.

Table D-1
Florida Retirement System
Projection of Retirement Costs (Excluding Member Contributions)
July 1, 2014
Based on Contribution Rates Before Blending

(All Amounts in Millions)

	2014 <u>-2015</u>	2015 <u>-2016</u>	2016 <u>-2017</u>	2017 <u>-2018</u>	2018 <u>-2019</u>
A. Employer Normal Cost ¹	\$1,143	\$1,046	\$1,079	\$1,115	\$1,150
B. UAL Payment / (Surplus Utilization) ²	<u>\$1,233</u>	<u>\$1,376</u> ²	<u>\$1,421</u> ²	<u>\$1,467</u> ²	<u>\$1,514</u> ²
C. Total	\$2,376	\$2,422	\$2,500	\$2,582	\$2,664

¹ Includes DROP contributions on behalf of DROP members.

² UAL Payment increase is based on assumed increasing payroll, but does not reflect the recognition and funding of deferred investment gains.

Table D-2
Florida Retirement System
Funding of UAL / (Surplus) by Duration of Amortization
July 1, 2014
(\$ in thousands)

	Years to Amortize Surplus							
	Regular	Special Risk	Special Risk Administrative	-- Elected Officers' Class --		Local	Senior Management	DROP
Valuation Date Outstanding UAL Balance / (Surplus)	\$10,948,418	\$5,575,964	\$16,860	\$398,898	\$51,675	\$304,320	\$1,609,596	\$2,603,570
UAL Cost / (Savings) Rate (see Table 4-11)	3.15%	10.68%	35.49%	24.44%	47.90%	45.30%	20.61%	7.12%
Projected UAL Payroll PY 2015 - 2016 ¹	\$21,614,100	\$3,435,022	\$3,329	\$106,744	\$7,012	\$44,295	\$517,489	\$2,398,588
Annual Payment / (Savings) for PY 2015 - 2016	\$680,869	\$366,886	\$1,182	\$26,090	\$3,359	\$20,066	\$106,668	\$170,863
Amortization Period Calculated Assuming								
Level Dollar	NA ²	NA ²	NA ²	NA ²	NA ²	NA ²	NA	NA ²
Level Percent of Payroll	26	24	21	24	24	24	23	24 ²

¹ The UAL payroll includes salaries for defined contribution program members who pay only the UAL contribution rate.

² Current annual payment / (savings) will never accumulate to the UAL if the earned interest rate is 7.65%.

Table D-3
Florida Retirement System
Projected Annual Payments of UAL Amortization Bases¹
July 1, 2014

Projected PY 2015-2016 and Forward Based on 07/01/2014 Valuation Results and 07/01/2014 Assets

(All Amounts in Millions)

	<u>2015 - 16</u>	<u>2016 - 17</u>	<u>2017 - 18</u>
1 Estimated Surplus Available Rate Stabilization Mechanism ²	\$0.0	\$0.0	\$0.0
2 (Increase)/Decrease in Available Surplus from prior year	\$0.0	\$0.0	\$0.0
UAL Bases			
3 12% Increase in Special Risk benefits (in pay status before 07/01/2000) ³	\$27.9	\$28.8	\$29.8
4 Special Risk Minimum In-Line-of-Duty Disability Increased to 65% ⁴	(\$0.2)	(\$0.2)	(\$0.2)
5 1993 - 1998 Experience Study Assumption Changes ⁵	(\$35.3)	(\$36.4)	(\$37.6)
6 1998 - 2003 Experience Study Assumption Changes ⁵	(\$263.4)	(\$271.9)	(\$280.8)
7 2003 - 2008 Experience Study Assumption Changes	\$447.8	\$462.3	\$477.3
8 2009 Experience (Gain)/Loss	\$1,405.1	\$1,450.8	\$1,497.9
9 Unrecognized (Gains)/Losses while in Surplus	(\$411.0)	(\$424.4)	(\$438.2)
10 2009 Plan Change (House Bill 479)	(\$85.0)	(\$87.7)	(\$90.6)
11 2010 Experience (Gain)/Loss	\$74.2	\$76.6	\$79.1
12 2010 Plan Change (Senate Bill 2100)	(\$81.3)	(\$83.9)	(\$86.7)
13 2011 Experience (Gain)/Loss	\$176.3	\$182.0	\$187.9
14 2012 Experience (Gain)/Loss	(\$6.9)	(\$7.1)	(\$7.4)
15 2013 Experience (Gain)/Loss	\$170.3	\$175.8	\$181.6
16 2008 - 2013 Experience Study Assumption/Method Changes	\$119.5	\$123.4	\$127.4
17 2014 Experience (Gain)/Loss	(\$162.1)	(\$167.4)	(\$172.8)
Subtotal [(3) through (17)]	\$1,375.9	\$1,420.7	\$1,466.7
18 Across the Board Rate Reduction of 0% ⁶	\$0.0	\$0.0	\$0.0
Total [Subtotal + (18)]	\$1,375.9	\$1,420.7	\$1,466.7
19 UAL payment / (Surplus Available) [(1) + Total] =	\$1,375.9	\$1,420.7	\$1,466.7

¹ Numbers exclude contributions to the Investment Plan.

² Projected surplus based on 07/01/2014 valuation results. Using amortization method that reflects interest.

³ In the absence of a surplus there is an additional cost to the Special Risk Class of 0.81% attributable to the 12% increase in pre-2000 retired benefits.

⁴ In the absence of a surplus there is an additional cost to the Special Risk Administrative Class of 0.13% and an additional cost to the Special Risk Class of -0.01% attributable to the Increase in Minimum ILOD Disability Benefit.

⁵ In the absence of a surplus there is an additional charge or credit to each class. See Tables 4-2 through 4-10 for details.

⁶ No surplus available for rate reduction.

Appendix E: Comparisons/Reconciliation

This Appendix contains certain comparative information required by the state. The table below compares actual investment return, aggregate payroll growth, and individual salary increases with the actuarial assumptions.

The next table reconciles the flow of participants from the 2013 actuarial valuation to the 2014 actuarial valuation, while the last table cross-references the required sections of 112.64 with this report.

Table E-1
One-Year Comparisons

1. Annual Rate of Investment Return on Actuarial Value of Assets			
	Period Ending	Actual	Assumed
	June 30, 2012	6.74%	7.75%
	June 30, 2013	8.02%	7.75%
	June 30, 2014	9.95%	7.75%

2. Annual Rate of Payroll Growth			
	Period Ending	Actual ¹	Assumed ¹
	June 30, 2012	-1.18%	4.00% ²
	June 30, 2013	0.03%	4.00% ²
	June 30, 2014	0.78%	4.00% ²

3. Individual Rates of Salary Increases for Regular Members and Special Risk Members			
Year Ended June 30	Rate of Increase During Year		
	Regular Members	Special Risk	Assumed ²
2012	0.7%	1.4%	5.85%
2013	3.2%	3.7%	5.85%
2014	5.7%	5.2%	5.85%

¹ The payroll base compared is used for UAL cost calculations and includes payroll for DROP members and certain defined contribution plan participants for whom only UAL contributions are due.

² Individual rates vary by age and service.

Table E-2
Florida Retirement System Defined Benefit Program
Data Reconciliation

	Active Participants	Disabled Participants	Retired Participants and Beneficiaries	DROP	Total
Number reported as of July 1, 2013	513,823	13,774	331,415	42,168	901,180
New Entrants ¹	53,697	0	0	0	53,697
Exits from Active Status ² or DROP	(48,653)	425	17,578	(12,171)	(42,821)
DROP Entry	(7,116)	0	0	7,116	0
Cessation of benefit payments	NA	(605)	(10,542)	0	(11,147)
Other reported status changes, including changes from Terminated Vested status	0	265	7,922	942	9,129
Number reported as of July 1, 2014	511,751	13,859	346,373	38,055	910,038 ³

¹ Includes rehires

² Includes retirement, vested termination, IP transfer, non-vested termination and death

³ The total count excludes 106,750 Terminated Vested participants

Table E-3
Florida Retirement System
Cross Reference to Section 112.64 Reporting Requirements

Code Ref	1 General Information:	Page/Section
1.003 (3g)	Includes certification by the enrolled actuary (signed and dated)?	Cover Letter
1.003 (11)	Do procedures follow commonly accepted procedures and determinations?	Cover Letter
1.003 (4g)	Disclosure of events not taken into account by actuary?	Cover Letter
1.003 (4g)	Disclosure of trends not assumed to continue (by actuary)?	Executive Summary
	2 Assumptions:	Page/Section
1.003 (3e)	Description and explanation of all actuarial assumptions?	Appendix A
1.003 (3f)	Is there a comparison of actual to expected salary increases over the preceding 3-year period?	E-1
1.003 (3f)	Is there a comparison of actual to expected investment returns over the preceding 3-year period?	E-1
1.003 (6)	Do assumptions factor in actual experience?	Appendix A
1.003 (6)	Is impact of inflation considered?	A-3
1.003 (6)	Any consistent experience gains or losses to suggest assumption changes?	No
1.003 (7)	Listing of changed assumptions?	A-18
	3 Plan Provisions & Funding Method:	Section
1.003 (4c)	Contain a summary of plan provisions?	Appendix B
1.003 (4d)	Contain a detailed summary of funding method?	Appendix A
1.003 (5)	Does funding method provide a contribution sufficient to meet the NC and amortize the UAL?	Section 4
	4 Assets & Method:	Exhibit
1.003 (3a)	Is the MVA breakdown included (by cash, bonds, stocks, and other)?	2-3
1.003 (3a)	Is the "statement value" breakdown included?	No
1.003 (3a)	Is the derivation of AVA included?	2-4
1.003 (8)	Are administrative expenses being paid on a current basis?	2-1, 2-2
	Asset reconciliation, including:	Exhibit
1.003 (4j)	- contributions by source	2-1, 2-2
1.003 (4j)	- interest and dividends	2-1, 2-2
1.003 (4j)	- realized gains / (losses)	2-1, 2-2
1.003 (4j)	- unrealized appreciation	2-1, 2-2
1.003 (4j)	- pension payments	2-1, 2-2
1.003 (4j)	- contribution refunds	2-1, 2-2
1.003 (4j)	- expenses	2-1, 2-2
1.003 (4j)	- other receipts (identified)	2-1, 2-2 (transfer)
1.003 (4j)	- other disbursements (identified)	2-1, 2-2 (IP)

5 UAL & Amortization Schedule:		Exhibit
1.003 (3b)	Include a plan to amortize any UAL?	4-2 & D-3
	Does amortization schedule of UAL exist (as of the valuation date) ...	Page
1.003 (3c)	- on an annual basis for the next 3-years?	Exhibit D-3
1.003 (3c)	- for the final year?	No
1.003 (3c)	Is a statement as to how method was derived included?	A-2
		Section 4, Executive Summary
1.003 (3d)	Is a description of actions taken to reduce the UAL included?	Exhibit
	Reconciliation of UAL (must include items below):	
1.003 (4h)	- UAL for prior valuation (w/ start date)	Page 6
1.003 (4h)	- Normal Cost, contributions, & accrued interest	Page 6
1.003 (4h)	- Impact of changes (assumption, funding method, amendments, gain/loss)	4-2—4-10
1.003 (4h)	- UAL for current valuation	4-2—4-10
6 Results:		Exhibit
1.003 (4a)	Valuation Date clearly indicated?	Page 1
1.003 (4e)	Are results separated by employee group?	3-2 and Sections 4 & 5
1.003 (4f)	Is there disclosure of any benefit and expense provided by and/or paid from plan assets for which no liabilities or current costs have been established?	Cover Letter
1.003 (4i)	Projection of emerging liabilities/cash flow needs for next 10-15 years (optional)	No
1.003 (4l)	Summary of principal results (for current and prior valuation) including:	Appendix C
	- participant data (counts, total pay, total annual benefits by group)	2-2, 2-4
	- assets (market and actuarial)	3-2
	- PVB (split: active by decrement, tv, ret & ben, dis, and total)	3-2
	- PV of future benefit payments	3-2, 4-2
	- AL and UAL, i.e., including amount, date, amortization period	5-1, 5-2
	- PVVB (by group), non-vested PVAB, Total PVAB	
1.003 (4l)	Reconciliation of PVAB, including:	
	- PVAB at beginning of year	5-3
	- changes due to amendment and/or assumptions	5-3
	- change due to decrease in discount period and benefits accrued	5-3
	- Benefits paid	5-3
	- Other changes	5-3
	- Net increase (decrease)	5-3
	- PVAB at end of year	5-3
1.003 (4l)	Pension Cost	
	- Normal cost (shown for each benefit and amount for admin expense)	4-1
	- Payment to amortize UAL	4-2—4-10
	- Expected plan sponsor contribution (i.e. total of above pieces with interest, also as % of pay)	4-11
	- Amount to be contributed by members (total and % of pay)	Pages B-3—B-4
1.003 (4l)	Past Contributions	
	- Required plan sponsor & member contribution	4-12 and 5-4
	- Actual contributions made by: plan sponsor, members, other	4-12 and 5-4
1.003 (4k)	Active member accumulated contributions with interest	5-2
1.003 (4l)	Net actuarial gain / loss	4-2—4-10
1.003 (4l)	Other (PVFS & PVFC at attained age and at entry age, PVFC from other sources, PVF Expected BP)	3-2

7 Data:		Exhibit
1.003 (4i)	Are membership demographics and financial statistics included?	Appendix C
1.003 (4i)	Age/service table for actives included?	C-7—C-17
1.003 (4i)	Data reconciliation?	E-2
8 Contribution Rate:		Page
1.003 (4a)	Applicable beginning and ending dates for recommended contribution indicated?	4
1.003 (4b)	Are ER and EE contribution rates adequate to meet benefits?	4
1.003 (4b)	Are contribution rate changes necessary to achieve or preserve funding?	Yes, Executive Summary and Exhibit 4-11
1.003 (7)	Is the impact of assumption or cost method changes indicated?	7, Exhibit 3-1
1.003 (9)	Were costs to be paid at a later date adjusted for interest and/or salary?	Yes 3—4
1.003 (10)	Is the effective date of recommended changes no later than the next fiscal year?	Yes 3—4

Appendix F: Glossary

The following definitions are largely excerpts from a list adopted in 1981 by the major actuarial organizations in the United States. In some cases the definitions have been modified for specific applicability to the FRS.

Accrued Benefit

The amount of an individual's benefit (whether or not vested) as of a specific date, determined in accordance with the terms of a pension plan and based on compensation and service to that date.

Accumulated Benefit Obligation (ABO)

The actuarial present value of benefits attributed by the pension benefit formula to employee service rendered before a specified date and based on employee service and compensation prior to that date.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disability, and retirement; changes in compensation, rates of investment earnings, and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; and other relevant items.

Actuarial Cost Method

A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Liability.

Actuarially Equivalent

Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

Actuarial Gain/Loss

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two Actuarial Valuation Dates, as determined in accordance with a particular Actuarial Cost Method.

Actuarial Liability (AL)

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.

Actuarial Present Value of Pension Plan Benefits

Total projected benefits include all benefits estimated to be payable to plan members as a result of their service through the valuation date and their expected future service. The actuarial present value of total projected benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

Actuarial Valuation

The determination, as of a valuation date, of the Normal Cost, Actuarial Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

Actuarial Value of Assets (AVA)

The value of cash, investments and other property belonging to a pension plan, as used by the actuary for the purpose of an Actuarial Valuation.

Amortization

Paying an interest-bearing liability by gradual reduction through a series of installments, as opposed to one lump-sum payment.

Amortization Payment

That portion of the pension plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Liability.

Level Percent of Pay: Produces a level series of payments when expressed as a percent of payroll. Cash payment increases in line with payroll growth assumption.

Level Dollar: Produces a decreasing pattern of payments when expressed as a percent of payroll. Cash payment remains level.

Annual Pension Cost (APC)

Under GASB, when the Net Pension Obligation is positive, the APC is equal to the Annual Required Contribution plus the Interest on the beginning Net Pension Obligation minus the amortization of the Net Pension Obligation. When the Net Pension Obligation is negative, the APC is equal to the Annual Required Contribution minus the Interest on the beginning Net Pension Obligation plus the amortization of the Net Pension Obligation.

Annual Required Contribution (ARC)

Under GASB, this amount is equal to the Normal Cost plus the Amortization Payment. GASB does not require contributions to be equal to the ARC; however it requires the calculation and reporting of the ARC.

Entry Age Normal Actuarial Cost Method (EAN)

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit ages. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Liability.

Funded Ratio

Ratio of the assets of a pension plan to its liabilities.

Government Accounting Standards Board (GASB)

This Board sets standards of state and local accounting and financial reporting.

Interest Rate

The rate used to discount projected benefit payments to determine the present value in a valuation.

Market Value of Assets (MVA)

The price for which an asset could be sold at a particular date. May also be referred to as the Fair Value of Assets.

Normal Cost (NC)

That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

Net Pension Obligation (NPO)

Under GASB, the cumulative difference between Annual Pension Cost and the employer's contributions to the plan, including the pension liability or asset at transition, if any.

Present Value (PV)/ Actuarial Present Value (APV)

The value of an amount or series of amounts or cash flows payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions, including selected interest rate.

Projected Benefits

Those pension plan benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and anticipated future compensation and service credits.

Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets. When the Actuarial Value of Assets exceeds Actuarial Liabilities a surplus exists.

Valuation Date

The date as of which the liabilities are determined.