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# Program Review

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## Florida Retirement System Pension Plan Fully Funded and Valuation Met Standard

Report No. 08-30 April 2008

*Office of Program Policy Analysis  
and Government Accountability*

*an office of the Florida Legislature*



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Gary R. VanLandingham, Ph.D., OPPAGA Director



# The Florida Legislature

## OFFICE OF PROGRAM POLICY ANALYSIS AND GOVERNMENT ACCOUNTABILITY



Gary R. VanLandingham, Ph.D., Director

April 2008

The President of the Senate,  
the Speaker of the House of Representatives,  
and the Joint Legislative Auditing Committee

Section 112.658, *Florida Statutes*, directs the Office of Program Policy Analysis and Government Accountability to review the actuarial valuation of the Florida Retirement System pension plan to determine whether the valuation complies with the Florida Protection of Public Employee Retirement Benefits Act, Ch. 112, Part VII, *Florida Statutes*.

The results of this review are presented to you in this report. To complete the review, we contracted with Gabriel, Roeder, Smith & Company to serve as our actuarial consultant. The review was conducted by K.F. Lee, Legislative Analyst, under the supervision of Kara Collins-Gomez, Staff Director.

We wish to express our appreciation to the staff of the Florida Department of Management Services for their assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary R. VanLandingham".

Gary R. VanLandingham  
Director

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# Florida Retirement System Pension Plan Fully Funded and Valuation Met Standards

The Florida Retirement System pension plan continues to be fully funded. The 2007 actuarial valuation determined that the plan's assets exceed its liabilities, with a surplus of \$8.2 billion as of July 1, 2007. Moreover, the pension plan experienced an actuarial gain of \$26 million. The 2007 actuarial valuation also shows that the plan's funding status (as measured by the ratio of its assets to liabilities) has experienced a decline over the last seven fiscal years (from 118% in Fiscal Year 2000-01 to 107% in Fiscal Year 2006-07).

Our actuarial consultant, Gabriel, Roeder, Smith & Company, concluded that the 2007 valuation was conducted in accordance with relevant state laws and rules and actuarial standards. It further concluded that the assumptions and methods used in the 2007 valuation were generally reasonable.

However, our consultant also continued to make several noteworthy observations and recommendations. For example, our consultant noted that the 2007 valuation disclosed the actuarial present value of future benefits and the actuarial present values of future pay. However, these values do not take into account an assumption for the probability that system members will participate in the Deferred Retirement Option Program (DROP). As a result, our consultant recommended that future valuations include such disclosures that fully reflect the effect of expected DROP participation (pages 32).

Additionally, our consultant continues to recommend that the valuation be improved by providing prior year results in a side-by-side comparison with current year results as appropriate. This would provide a ready comparison of changes in values and percentage changes in the Florida Retirement System's membership, assets, and benefits (pages 32 to 35).<sup>1</sup>

Moreover, based on observations made by our consultant and our review of the 2007 valuation, we make one additional recommendation.

We recommend that in future valuations, the Department of Management Services' consulting actuary monitor the rate stabilization mechanism for consistency with Governmental Accounting Standards

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<sup>1</sup> Suggestions of key valuation disclosures are provided in Rule 60T-1.003(4)(l), F.A.C.

Board standards and report the results of its monitoring activities (pages 35 to 37).

Gabriel, Roeder, Smith & Company's report on the 2007 actuarial valuation is presented in its entirety in Appendix A, beginning on page 9. The Secretary of the Department of Management Services provided a written response to our preliminary report, reprinted at Appendix B, page 57.

# Florida Retirement System Pension Plan Fully Funded and Valuation Met Standards

## Scope

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Section 112.658, *Florida Statutes*, directs the Office of Program Policy Analysis and Government Accountability (OPPAGA) to review the 2007 actuarial valuation of the Florida Retirement System pension plan to determine whether it complies with provisions of the Florida Protection of Public Employee Retirement Benefits Act.<sup>2</sup> The Act establishes reporting and disclosure standards for actuarial reports on state and local government retirement plans. These reports must address the adequacy of employer contribution rates, assess the plan's assets and projected liabilities, and use actuarial cost methods approved by the Employee Retirement Income Security Act of 1974 and as permitted under regulations prescribed by the U.S. Secretary of the Treasury. The Act requires OPPAGA to use the same actuarial standards the Department of Management Services uses to monitor local government pension plans.

Our review objectives were to determine whether the Department of Management Services' consulting actuary conducted the 2007 actuarial valuation of the Florida Retirement System pension plan using generally accepted and statutorily required standards, methods, and procedures; whether the valuation's results were reasonable; and whether the plan continued to have sufficient assets to pay future benefits when due. To complete this review, we contracted with Gabriel, Roeder, Smith & Company to serve as our actuarial consultant.

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<sup>2</sup> Sections 112.60 through 112.67, *F.S.*

## Background

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Florida law requires the Department of Management Services to conduct an actuarial valuation of the Florida Retirement System (FRS) pension plan annually with the results reported to the Legislature by December 31 prior to the next legislative session.<sup>3</sup>

Actuarial valuations are made for several reasons:

- to determine the contribution rates needed to cover the plan's normal costs (the percentage of salary needed to be contributed each year to cover the cost of future benefits owed system members);
- to determine the contribution rates needed to amortize any unfunded actuarial liability (the amount of pension liabilities not covered by contributions made at the normal cost rate or by investment of plan assets); and
- to assess the system's funding status (the ability of system assets to cover its liabilities).

The FRS pension plan provides benefits to state employees and employees of local school districts, counties, certain cities, community colleges, and state universities. Most of the plan's active members are not state employees. For example, in Fiscal Year 2006-07, school district employees comprised 48.86% of the plan's active members, state employees comprised 20.78%, county employees comprised 23.62%, city and special district employees comprised 3.96%, and community college employees comprised 2.78%.<sup>4</sup>

The plan has experienced significant growth overall in the number of active members and annuitants (retirees or their beneficiaries receiving retirement payments). Specifically, between Fiscal Years 1980-81 and 2006-07, the number of active system members increased from 393,894 to 598,438 (51.93%). During this same period, the number of system

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<sup>3</sup> Florida Retirement System members may join one of two retirement benefit options—the pension plan or the investment plan. The FRS pension plan is a defined benefit plan, meaning that employer contributions to employees' retirement benefits are invested by the employer. The employer guarantees a certain level of benefit payment and bears the risk that investment returns will not support that level of benefits. Participants' retirement benefits are based upon a formula taking into account factors such as their salary levels, years of service, compensation, and FRS membership class. The investment plan, or Public Employee Optional Retirement Program (PEORP), is a defined contribution plan. Investment plan participants are guaranteed a certain level of contributions from their employers and the participants select how these funds will be invested from a list of authorized investment accounts. Participants bear the risk of poor investment returns, but after meeting certain requirements, participants can take their retirement accounts with them if they no longer work with an employer participating in the FRS. To date, approximately 12% of FRS total active membership has elected to participate in the investment plan.

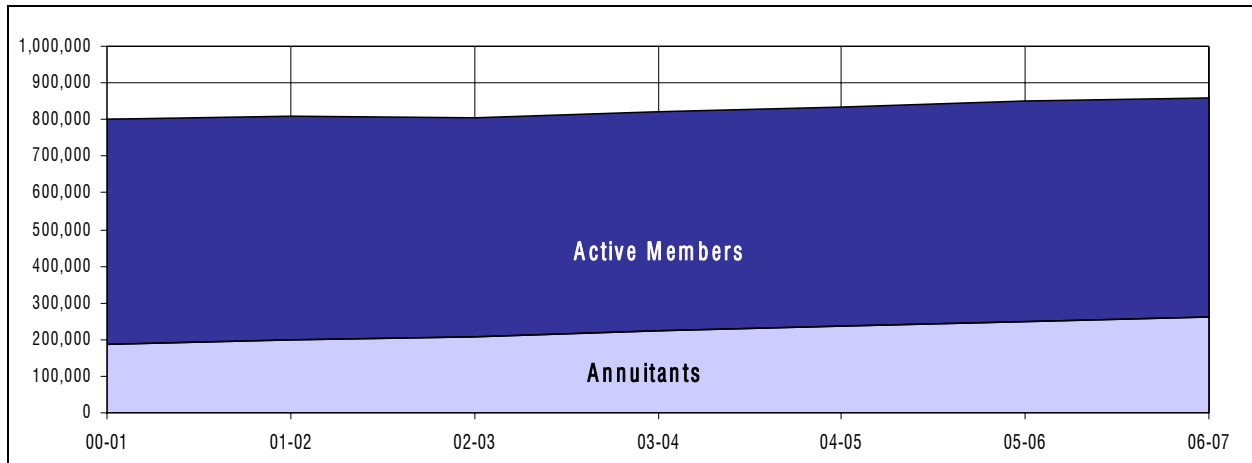
<sup>4</sup> The Fiscal Year 2006-07 FRS annual report contains the most recent data available on the sources of pension plan membership. This report combines data on State University System employees with data for state employees.



annuitants increased from 59,533 to 261,952 (340.01%). Exhibit 1 shows the growth in active members and annuitants since 2000-01.

**Exhibit 1**

**The Overall Number of FRS Members and Annuitants Has Increased Since Fiscal Year 2000-01<sup>1</sup>**



<sup>1</sup> Data presented in this exhibit excludes (1) FRS pension plan members who are in the Deferred Retirement Option Program (DROP) and (2) terminated vested members (persons who are vested and are no longer working for a government entity participating in the system, but have not begun to receive retirement benefits). The 2007 actuarial valuation indicates that the FRS pension plan has 31,562 DROP members and 84,766 terminated vested members as of July 1, 2007.

Source: Division of Retirement documents and the Florida Retirement System Actuarial Valuation as of July 1, 2007.

The Department of Management Services’ Division of Retirement administers the Florida Retirement System pension plan. Pension benefits and all division operating expenses are paid from revenues deposited in the Florida Retirement System Trust Fund. For Fiscal Year 2007-08, the Legislature provided the division spending authority of \$33.2 million. <sup>5</sup>

The State Board of Administration invests FRS pension plan assets. As of June 30, 2007, the market value of pension plan assets was \$136.7 billion. During Fiscal Year 2006-07, the Florida Retirement System paid \$4.9 billion in pension payments to retired, disabled, or beneficiary members.

The department contracted with Milliman Consultants and Actuaries to conduct the plan’s 2007 actuarial valuation.

<sup>5</sup> The Division of Retirement’s operating budget includes \$14.9 million in general revenue to pay benefits for some small, closed retirement systems.

## Findings

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### ***The pension plan's 2007 valuation was conducted in accordance with standards, and its assumptions and methods are reasonable***

Our consulting actuary, Gabriel, Roeder, Smith & Company, concluded that the assumptions and methods used in the 2007 valuation were reasonable and generally complied with relevant state laws and rules and actuarial standards. However, while reasonable, the inflation rate assumption of 3% is at the lower end of the range of reasonable inflation assumptions.

In addition, our consulting actuary continued to note that the valuation's treatment of the Deferred Retirement Option Program (DROP) is nontraditional and could conflict with government accounting standards and generally accepted actuarial standards of practice. Specifically, the consulting actuary reported that two methods were used to treat DROP. One method was used to determine the effect of DROP on the actuarial valuation and for measurement of the system's surplus, while a separate method was used to determine the required contribution for each employee class. Our consulting actuary concluded that the method used to determine the effect on the actuarial valuation did not reflect the probability of future DROP participation by active members. Use of a method that factors in the future DROP participation by active members would have resulted in a \$1.3 billion reduction in the reported July 1, 2007, surplus, from \$8 billion to \$6.7 billion. The valuation initially calculated the surplus at \$8.2 billion. However, the surplus was adjusted to \$8 billion to account for the contingent liability due to FRS investment plan members' ability to exercise a second election to go back into the FRS pension plan.<sup>6</sup>

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<sup>6</sup> As provided by Ch. 2001-235, *Laws of Florida*, the actuarial gain from members electing to join the investment plan shall be amortized within 30 years as a separate unfunded actuarial base independent of the rate stabilization mechanism defined in s. 121.031(3)(f), *F.S.* For the first 25 years, no direct amortization payment is to be calculated for this base. During this 25-year period, this separate base is to be used to offset the impact of employees exercising their ability to rejoin the pension plan.

Our consulting actuary also continued to note that the amortization of the system's surplus determined using the system's rate stabilization method may not produce an equivalent result to amortizing the surplus over a 30-year period, as set forth in Governmental Accounting Standards Board (GASB) standards.<sup>7</sup> For example, our consulting actuary pointed out that for the 2007 actuarial valuation, the amortization of the surplus using the rate stabilization method was \$174 million, while an amortization of the surplus over a 30-year period was \$357 million. However, our consulting actuary also commented that this difference may not be considered a material amount in light of the size of the Florida Retirement System. The Gabriel, Roeder, Smith & Company report on the 2007 actuarial valuation is presented in its entirety in Appendix A.

## ***The pension plan maintained fully funded status in 2007***

Actuarial valuations provide a means to assess whether a pension plan is making progress in improving its funding status. One indicator of a plan's funding status is the sufficiency of its assets in covering benefit liabilities.

In Fiscal Year 2006-07, the FRS pension plan maintained its fully funded status, with assets that exceeded liabilities.<sup>8</sup> As shown in Exhibit 2, the plan's ratio of assets to liabilities significantly increased from Fiscal Year 1982-83 to 2006-07 (from 50% to 107%). This improvement was primarily due to significantly greater-than-expected investment returns, resulting from the exceptional performance of the stock market during the 1980s and 1990s, and less-than-expected member salary increases.

Although the pension plan is fully funded, its funding status has experienced a decline over the last eight fiscal years. This decline is attributable in part to the 2000 Legislature's implementation of the rate stabilization mechanism.<sup>9</sup> The rate stabilization mechanism was designed to recover a portion of the surplus through reduced employer contributions while minimizing the risk of future increases in contribution rates. The plan's ratio of assets to liabilities declined from 118% in Fiscal Year 2000-01 to 107% in Fiscal Year 2006-07.

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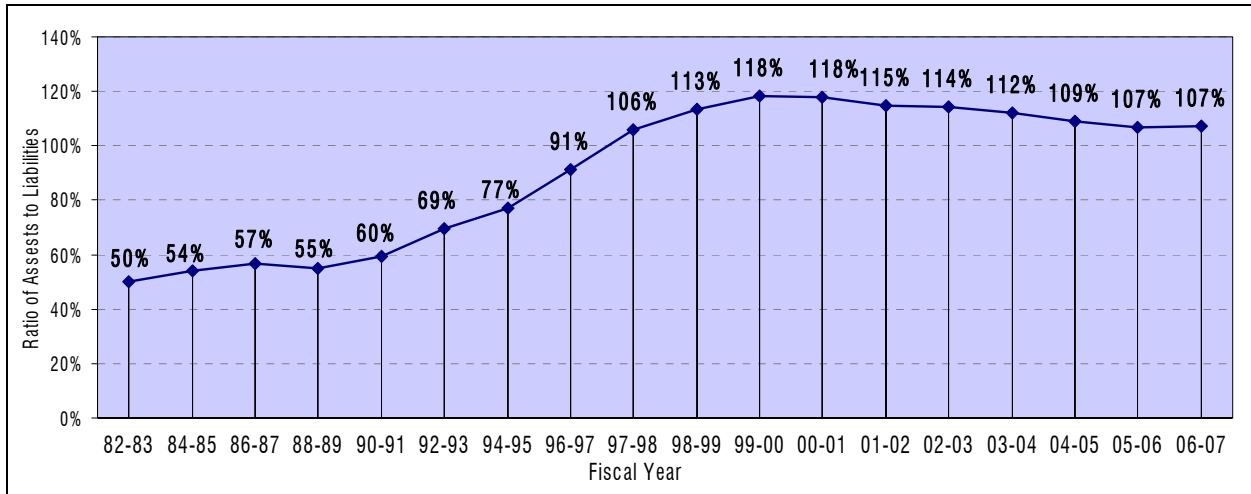
<sup>7</sup> GASB Statement 25 allows a maximum amortization period of 40 years for fiscal years commencing prior to June 16, 2006, and a maximum of 30 years for fiscal years commencing after June 15, 2006.

<sup>8</sup> The 2007 valuation initially produced an actuarial surplus of \$8.2 billion. The surplus represents the difference between the actuarial value of assets (\$125.6 billion) and the actuarial accrued liability (\$117.4 billion). The actuarial value of assets is based on a five-year averaging methodology that is designed to attenuate fluctuations in asset values. The actuarial accrued liability represents the difference between the present value of future benefits (\$144.2 billion) and the present value of future employer contributions (\$26.8 billion). The present value of future benefits incorporates projected pension plan benefit payments and associated expenses. The present value of future employer contributions is based on normal costs, which are the percentage of salary that if paid from the year of entry to the year of retirement would fully fund a member's projected benefits at retirement.

<sup>9</sup> As specified in s. 121.031(3)(f), *F.S.*

In Fiscal Year 2006-07, the pension plan experienced an actuarial gain of \$26 million. The actuarial gain was attributable primarily to greater-than-expected increases in investment gains, which were due to factors such as receipt of contributions, payment of benefits and expenses, and investment experience. However, during the same period, actuarial liabilities increased by \$7.84 billion. The increase in actuarial liabilities was due to factors such as larger than expected salary increases, transfers between membership classes, and reentries into the FRS workforce by inactive members.

**Exhibit 2**  
**Pension Plan Funding Status Has Improved Over Time,**  
**But There Has Been a Downward Trend in Recent Years**



Source: Division of Retirement documents and the Florida Retirement System Actuarial Valuation as of July 1, 2007.

## Recommendations

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Based on the review by Gabriel, Roeder, Smith & Company, we continue to make the following recommendations.

- We recommend inclusion in the FRS actuarial report disclosures of the normal costs and actuarial gains and losses fully reflecting the DROP, as well as the disclosure of the present value of future benefits fully reflecting the DROP. Inclusion of these disclosures would provide valuable information to the Legislature.
- We recommend that the FRS actuarial report provide prior year results along with side-by-side current year results as appropriate. This information would provide a ready comparison both in terms of changes in values and percentage changes in the Florida Retirement System's membership, assets, and benefits.
- We recommend that in future valuations, the Department of Management Services' consulting actuary monitor the rate stabilization mechanism for consistency with Governmental Accounting Standards Board standards and report the results of its monitoring activities in the FRS actuarial report, as this reporting would provide valuable information to the Legislature.



# Appendix A





**ACTUARIAL REVIEW**

**OF**

**July 1, 2007 Actuarial Valuation**

**of the**

**Florida Retirement System**

**FOR THE**

**OFFICE OF PROGRAM POLICY ANALYSIS**

**AND GOVERNMENT ACCOUNTABILITY**

**Submitted by:**

**GRS**

**Gabriel Roeder Smith & Company**

**March 17, 2008**

ACTUARIAL REVIEW - JULY 1, 2007 ACTUARIAL VALUATION OF THE FLORIDA RETIREMENT SYSTEM

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ACTUARIAL REVIEW - JULY 1, 2007 ACTUARIAL VALUATION OF THE FLORIDA RETIREMENT SYSTEM

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ACTUARIAL REVIEW - JULY 1, 2007 ACTUARIAL VALUATION OF THE FLORIDA RETIREMENT SYSTEM

March 17, 2008

Ms. Kara Collins-Gomez  
Staff Director  
Government Operations Policy Area  
Office of Program Policy Analysis  
and Government Accountability  
State of Florida  
111 W. Madison St., Suite 312  
Tallahassee, Florida 32399-1475

**Re: FRS Actuarial Review**

Dear Kara:

As requested, we have completed our actuarial review of the July 1, 2007 Actuarial Valuation Report of the Florida Retirement System (FRS) prepared by Milliman USA.

Based upon this actuarial review, we find that the actuarial assumptions and methods appropriately develop actuarial values of the System. We have also replicated key financial results of the July 1, 2007 Actuarial Valuation and there are no material differences in the valuation results.

Our specific findings are:

1. The Department of Management Services' actuaries are generally in compliance with the requirements of Florida Statutes, Department rules, government accounting standards and actuarial standards of practice regarding their actuarial valuation of FRS. We have identified a few areas where consideration of refinement may be warranted.
2. The Department's actuaries for the most part use generally accepted actuarial cost methods, bases for assumptions and reporting standards. We have similarly identified areas where documentation and considerations or refinements may be warranted.
3. The specific economic and demographic assumptions used are arrived at from a sufficient level of detail considered and are generally reasonable in light of recent experience.
4. The Department's actuaries provide sufficient information as to the causes of gains, losses and net change in the unfunded liability to allow evaluation of specific factors. Additional disclosures may add value.
5. The Department's actuaries' actuarial report for the most part adequately provides necessary information that another actuary, unfamiliar with the situation, would find information to appraise the findings and arrive at reasonably similar results. FRS is a complicated System. We have identified information of a comparative nature that would be helpful in this regard.

6. For purposes of the governmental accounting standards, the Deferred Retirement Option Program (DROP) liability has been calculated and presented in an actuarially acceptable manner. We have identified areas where the DROP liability may be calculated in a non-actuarial manner.
7. The amortization of the Rate Stabilization Mechanism (RSM) as presented may not be calculated within amortization periods as allowable by GASB based upon certain parameters. We understand accounting expense and disclosure information has been calculated in compliance with GASB requirements.
8. We found no Plan changes that would adversely impact the Plan's compliance with OMB's A-87 cost principles. We discuss the possible divergence of the Plan's compliance with OMB's A-87 cost principles for funding resulting from the amortization of the Rate Stabilization Mechanism (RSM) as presented being not calculated within amortization periods as allowable by GASB based upon certain parameters and the liability calculation of the DROP for funding.
9. We have found other aspects of the Department's actuaries' report where further disclosure and further consideration may be warranted.

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We wish to thank Mr. Gary Green and Mr. Robert Dezube of Milliman USA for their assistance without which this review could not have been completed.

We look forward to responding to any questions or comments from the interested parties. If you should have any question concerning the above, please do not hesitate to contact us.

Sincerest regards,



Lawrence F. Wilson, A.S.A.  
Senior Consultant and Actuary



Jennifer M. Rambusch  
Senior Analyst

Enclosure

# **Introduction**

## **I. Introduction**

As a matter of policy the Office of Program Policy Analysis and Government Accountability (OPPAGA) engages an independent reviewing actuary to conduct various actuarial reviews and analysis. The scope of this work includes an actuarial review of the annual actuarial valuation and periodic experience study. In addition, contracted services include actuarial review of the CAFR pension disclosures (GASB 25 and 27) along with review of the federal contribution rate performed on behalf of the Office of the Auditor General.

The work to be reviewed is produced by the current Department of Management Services' actuaries - Milliman USA with Mr. Robert Dezube as actuary.

This actuarial review is a review of the July 1, 2007 Actuarial Valuation Report and a replication of the July 1, 2007 Actuarial Valuation.

The scope of this project is limited to reviewing the work of Milliman USA to the degree necessary to express opinions regarding the accuracy and reasonableness of the following:

1. Compliance with the requirements of Florida Statutes, Department rules, government accounting standards and actuarial standards of practice regarding their actuarial valuation of FRS.
2. Use of generally accepted actuarial cost methods, bases for assumptions and reporting standards.
3. Use of specific economic and demographic assumptions arrived at from a sufficient level of detail considered and are generally reasonable in light of recent experience.
4. Provision of sufficient information as to the causes of gains, losses and net change in the unfunded liability to allow evaluation of specific factors.
5. Adequacy of actuarial report in providing necessary information that another actuary, unfamiliar with the situation, would find information to appraise the findings and arrive at reasonably similar results.
6. Calculation and presentation of the Deferred Retirement Option Program (DROP) liability in an actuarially acceptable manner.
7. Amortization of the negative unfunded accrued liability under the Rate Stabilization Mechanism (RSM) within amortization periods as allowable by GASB.
8. Determination of any adverse impact of any Plan changes on compliance with OMB's A-87 cost principles.
9. Aspects of the Department's actuaries work and report that are insufficient.



## **Executive Summary**

## II. Executive Summary

We have reviewed the July 1, 2007 Actuarial Valuation Report prepared by Milliman USA (Department of Management Service's retained valuation actuary). We find the actuarial assumptions and methods generally develop appropriate actuarial values for FRS. We have also replicated the results of the July 1, 2007 Actuarial Valuation and find no material differences in the valuation results.

In reviewing actuarial assumptions and methods, it is important to recognize that there is not a single *correct* set of actuarial assumptions and methods. There is a range of reasonableness within which individual assumptions, methods and the entire valuation basis may fall. Assumptions may be characterized as conservative (producing relatively higher near term contributions) or aggressive (producing relatively lower near term contributions) within this range. Similarly acceptable actuarial methods impact the incidence of required contributions.

In this light, we have the following comments on the July 1, 2007 Actuarial Valuation.

1. **Compliance with requirements of the Florida Statutes, Department rules, government accounting standards and actuarial standards of practice:** Overall, the actuarial valuation is compliant with these requirements. However, the application of the Rate Stabilization Mechanism (RSM) and treatment of the Deferred Retirement Option Program (DROP) appear to be somewhat nontraditional. Application of the RSM tends to be problematic in combination with DROP liability treatment.
2. **Use of generally accepted actuarial cost methods, bases for assumptions and reporting standards:** Generally, the Actuarial Valuation meets these requirements. The use of the RSM treatment of the Deferred Retirement Option Program (DROP) may be a somewhat nontraditional *actuarial cost method*.
3. **Economic and demographic assumptions arrived at from a sufficient level of detail considered and collective effect of all assumptions:** For the most part, the actuarial assumptions are reasonably related to plan experience based upon the results of the latest Experience Study. We continue to find the actuarial assumptions internally consistent including consistent recognition of anticipated inflation in the economic assumptions.
4. **Disclosure of sources of gains and losses:** Actuarial gains and losses are identified by source in sufficient detail to evaluate specific factors (i.e. investment return, salary increases, etc.). The reported actuarial gain for the year ended June 30, 2007 was \$0.026 billion based upon the actuarial assumptions used for funding in the July 1, 2006 Actuarial Valuation. For the previous year ended June 30, 2006, there was a reported actuarial loss of \$1.492 billion. The reported actuarial gains and losses are impacted by the somewhat nontraditional treatment of the DROP. Additional disclosures may be warranted.

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ACTUARIAL REVIEW - JULY 1, 2007 ACTUARIAL VALUATION OF THE FLORIDA RETIREMENT SYSTEM

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5. **Disclosure of sufficient information that another actuary, unfamiliar with the situation, could appraise the findings and arise at similar results:** The actuarial valuation provides significant information. FRS is complicated and the methods employed for certain benefits (DROP), the allocation of contribution requirement by Class and the use of the Rate Stabilization Mechanism are somewhat non-traditional. Additional side-by-side comparison of current and prior year results would add value.
6. **Calculation and presentation of the DROP liability in an actuarially acceptable manner for GAAP:** Except for the GASB accounting exhibits, substantially all remaining information reported including the determination of the reported surplus used for the Rate Stabilization Method (RSM) continues to reflect nontraditional handling of the DROP liability.
7. **Amortization of the surplus using the RSM in compliance with GASB accounting standards:** The amortization of the surplus determined using the RSM may not be GASB compliant. We measured the difference and discuss materiality of the difference.
8. **Impact of any Plan changes on OMB's A-87:** The Report indicates that the IFAS Plan has been merged into FRS through transfer of assets and liabilities. The effect of the merger of the IFAS Plan appears *de minimis* when compared to FRS prior to the merger and we believe no Plan changes would adversely affect compliance with OMB's A-87 cost principles. We note the potential divergence from OMB's A-87 cost principles as a result of the possible non-GASB compliant amortization of the surplus resulting from the RSM and treatment of the DROP.
9. **Other aspects of the Valuation:** As stated above, the actuarial valuation provides significant information. We believe disclosures of the present value of benefits and actuarial gain / (loss) fully reflecting the DROP continue to be appropriate. The method used to determine the actuarial value of assets may warrant further review.

**Analysis**

**and**

**Recommendations**

### III. Analysis and Recommendations

The following are detailed analysis and recommendations based upon our examination and review of the work of the Department of Management Services' actuaries as evidenced by the July 1, 2007 Actuarial Valuation to determine whether:

- A. *The Department of Management Services' actuaries are in compliance with the requirements of the Florida Statutes, Department rules, government accounting standards and actuarial standards of practice regarding their actuarial valuation of the Florida Retirement System pension plan.*

Overall, we believe the actuarial valuation is compliant with these requirements.

However, we believe some of the requirements of the Florida Statutes and Department rules could conflict with government accounting standards and generally accepted actuarial standards of practice. In addition, we are uncertain as to the proper application of Florida Statutes dealing with the Rate Stabilization Method – how should the DROP liability be measured for purposes of determining the surplus? The nontraditional treatment of the DROP appears to have a significant impact on the size of the reported surplus (\$8.2 billion vs. \$6.7 billion).

**Actuarial Cost (Funding) Method:** An actuarial cost method is a set of techniques for conversion of the actuarial present values of benefits into contribution information. Actuarial methods are characterized by:

1. Normal Cost – the cost of the system without consideration of funded status.
2. Actuarial Accrued Liability – the assets which would have accumulated to date had contributions been made at the level of the normal cost since the date of the first benefit accrual, all actuarial assumptions had been exactly realized and there had been no benefit changes.

The total contribution produced by an actuarial cost method is the total of the normal cost and an amount to amortize any unfunded actuarial accrued liability.

The method used in the valuation for FRS is the Entry Age Normal Method. The normal cost under this method is the annual cost, expressed as a level percentage of pay, which will support the benefits of the System. Entry Age Normal is the most prevalent funding method in the public sector. It is appropriate for the public sector, in part, because it produces costs that remain stable as a percentage of payroll over time, resulting in intergenerational equity for taxpayers.

There are a couple of areas in which the application of the Entry Age Normal Method in the FRS

valuation is non-traditional. **First**, the use of the surplus (excess of actuarial value of assets over actuarial accrued liabilities) is governed by Florida Statute.

Specifically, F.S., 121.031(3)(f) requires application of the Rate Stabilization Mechanism (RSM) for determining the amount of surplus to be recognized in any given year as follows:

*f) The actuarial model used to determine the adequate level of funding for the Florida Retirement System shall include a specific rate stabilization mechanism, as prescribed herein. It is the intent of the Legislature to maintain as a reserve a specific portion of any actuarial surplus, and to use such reserve for the purpose of offsetting future unfunded liabilities caused by experience losses, thereby minimizing the risk of future increases in contribution rates. It is further the intent of the Legislature that the use of any excess above the reserve to offset retirement system normal costs shall be in a manner that will allow system employers to plan appropriately for resulting cost reductions and subsequent cost increases. The rate stabilization mechanism shall operate as follows:*

- 1. The actuarial surplus shall be the value of actuarial assets over actuarial liabilities, as is determined on the preceding June 30 or as may be estimated on the preceding December 31.*
- 2. The full amount of any experience loss shall be offset, to the extent possible, by any actuarial surplus.*
- 3. If the actuarial surplus exceeds 5 percent of actuarial liabilities, one-half of the excess may be used to offset total retirement system costs. In addition, if the actuarial surplus exceeds 10 percent of actuarial liabilities, an additional one-fourth of the excess above 10 percent may be used to offset total retirement system costs. In addition, if the actuarial surplus exceeds 15 percent of actuarial liabilities, an additional one-fourth of the excess above 15 percent may be used to offset total retirement system costs.*
- 4. Any surplus amounts available to offset total retirement system costs pursuant to subparagraph 3. should be amortized each year over a 10-year rolling period on a level-dollar basis.*

We understand the RSM, enacted into Florida law in 2000, was the result of an involved lengthy study involving members of the Florida Legislature, FRS employers, legislative and executive branch policy staff, professionals from the Florida State Board of Administration (SBA) and the Division of Retirement, two independent actuarial firms and SBA Trustees. The group recommended that the Legislature consider a method to stabilize contribution rates and ease the burden of contribution volatility on FRS participating employers.

*In fact, the Legislature included their philosophy in F.S., section 121.031(3)(f) as follows ..... It is the intent of the Legislature to maintain as a reserve a specific portion of any actuarial surplus, and to use such reserve for the purpose of offsetting future unfunded liabilities caused by experience losses, thereby minimizing the risk of future increases in contribution rates. It is further the intent of the Legislature that the use of any excess above the reserve to offset retirement system normal costs shall be in a manner that will allow system employers to plan appropriately for resulting cost reductions and subsequent cost increases.*

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Further, we understand the reported surplus (excess of the actuarial value of assets over the accrued actuarial liability) has arisen primarily due to favorable historic and recent investment returns and not from direct employer contributions.

In fact, as per the statute, a portion of the surplus has been used to stabilize contribution rates and fund System benefits.

The Actuarial Standards Board (ASB) promulgates standards of practice for actuaries. *Actuarial Standard of Practice (ASOP) No. 4 – Measuring Pension Obligations* addresses amortizations.

Paragraph 5.2.7 *Amortization—Factors Considered*— reads as follows:

*Amortization may be required for such things as initial or unfunded actuarial liabilities, actuarial gains and losses and changes in actuarial liabilities due to plan amendments or changes in actuarial assumptions. The choice of an amortization period or range of periods should reflect:*

- a. Any known limitations in the continuing ability of the plan sponsor to fund the plan. For example, consideration should be given to the probable future careers of the firm’s principals for the plan of a small professional corporation, or the probable future lifetime of the plan sponsor;*
- b. The period over which the sponsor is benefited by the plan provision giving rise to the actuarial present value being amortized;*
- c. The existing relationship between assets and actuarial liabilities;*
- d. Progress towards meeting cash flow needs or a desired funding goal; and*
- e. Permissible smoothing of costs or contributions.*

***The pattern of amortization during each selected period should be rational and systematic, such as a level annual dollar amount or a level percentage of participants’ payroll.***

The Government Accounting Standards Board (GASB) promulgates accounting standards for public entities. GASB Statements 25 and 27 generally set out expense and disclosure requirements for retirement systems.

**Under GASB standards, expense should include provisions for amortizing the total unfunded actuarial liability (UAL), whether the UAL is positive or negative.** Consequently, a negative unfunded accrued liability (surplus) is required to be amortized (See Guide to Implementation of GASB Statements 25, 26 and 27 on Pension Reporting and Disclosure by State and Local Government Plans and Employers - Question 40) and GASB Statement 27 (Footnote 10).

In general, the maximum amortization period is 30 years for fiscal year ended June 30, 2007 (See Guide to Implementation of GASB Statements 25, 26 and 27 on Pension Reporting and Disclosure by State and Local Government Plans and Employers - Question 41) and GASB Statement 27 (Paragraph 10.f.1.).

Paragraph 148 of GASB Statement 25 reads *The Board also believes that, when components of the total unfunded actuarial liability are separately amortized, gains and losses of a similar type ... should be amortized over similar periods; that is it would not be appropriate to recognize all gains immediately or over very short periods and spread all losses over longer periods. The Board recognizes that a required minimum period may not always be appropriate. For example, in some circumstances, the immediate recognition of a gain to offset a loss may help to reduce volatility in the ARC.* Note that paragraph 148 is included in the *Basis for Conclusions* section rather than in the formal statement section. Consequently, it may represent GASB's preference, but not a formal requirement.

We are not aware of any additional GASB pronouncements that deal definitively with the amortization of surplus; however, we understand GASB has a consistent and clear preference for treating overfunded and underfunded liabilities in the same manner. Consequently, we believe it is likely that, if asked, GASB would reply that a maximum equivalent single amortization period of 30 years would indeed be applicable to the FRS overfunded situation, and that the amortization of the unfunded accrued liability under the RSM is not presented and calculated in accordance with amortization periods allowed by GASB. If FRS wishes a more definitive determination of GASB's position on the maximum amortization period for surplus, we suggest that GASB be contacted directly.

The July 1, 2007 actuarial valuation includes conforming GASB reporting. However, there is no guarantee that the RSM will produce compliant GASB contribution requirements in any year.

A **second issue** deals with the *policy* decision for treatment of the Deferred Retirement Option (DROP) program.

As stated on page I-12 of the July 1, 2007 Actuarial Valuation Report (Report) the DROP contribution requirement is determined on a two step approach. Based upon communication with the Department's actuary, we understand the process to proceed as follows:

**Step 1** (1<sup>st</sup> bullet) - The liabilities are determined under the entry age normal actuarial cost method by Class utilizing assumed rates of future retirement that do not reflect the probability of entering the DROP. We understand current DROP members are treated as retired and included in their respective Class. The required contribution by Class is determined as the normal cost less reflected surplus recognized through the rate stabilization method (RSM) (See Table IV - 8 of the Report).

**Step 2** (2<sup>nd</sup> bullet) - The liabilities are re-determined under the entry age normal actuarial cost method utilizing assumed rates of future retirement that do reflect the probability of entering the DROP in the future. The required contribution for the DROP is determined as the increase in normal cost plus the increase in actuarial accrued liability amortized over 30 years as a level dollar



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amount assuming mid-year payment in the fiscal year following the Report year (See Table IV - 8 of the Report).

We understand for the remainder of the Report (excluding GASB accounting information) values are shown based upon Step 1 only.

For purposes of determining contribution amounts, the cost for the DROP may not have been determined under a GASB compliant actuarial cost method as defined under GASB Statement 27 (See Tables IV - 3 through 7 of the Report).

1. Tables IV – 3 through 7 of the July 1, 2007 Actuarial Valuation Report state that ... *DROP <contribution> rates are special charges to cover the assumed cost of DROP participant; they are not Normal Cost or UAL Cost in the traditional sense.*
2. Paragraph 10.a. of GASB Statement 27 states *Benefits to be included - The actuarial present value of total projected benefits should include all pension benefits to be provided by the plan to plan members or beneficiaries in accordance with (1) the terms of the plan and (2) any additional statutory or contractual agreement(s) to provide pension benefits through the plan that are in force at the actuarial valuation date.*
3. Paragraph 10.d. of GASB Statement 27 states *Actuarial cost method – One of the following actuarial cost methods should be used: entry-age, frozen entry age, attained age, projected unit credit, or the aggregate actuarial cost method as described in Paragraph 40, Section B.*

We believe all GASB accounting information has been presented based upon the STEP 2 results.

Finally, we note that the measurement of surplus for purposes of the RSM is based upon the actuarial accrued liability measured under Step 1. This currently overstates the amount of surplus since the Step 1 actuarial accrued liability does not reflect the actuarial accrued liability for expected future DROPs. F.S., 121.031(3)(f)(1) uses the term actuarial liabilities without further definition. We might have expected the use of the full actuarial accrued liability measured inclusive of expectations of future DROPs (Step 2).

The actuarial valuation shows that use of the actuarial accrued liability determined under the Step 2 approach would decrease the reported July 1, 2007 surplus by \$1.511 billion.

- B. *The Department's actuaries use generally accepted actuarial cost methods, bases for assumptions and reporting standards.*

For the most part, the actuarial valuation meets these requirements. As explained above (paragraph A), the use of the RSM is a somewhat nontraditional *actuarial cost method and the nontraditional treatment of DROPs understates plan liabilities.* Our discussion of certain aspects of the actuarial cost methods are included in paragraph A above.

A number of actuarial assumptions were updated and first implemented for the July 1, 2004 Actuarial Valuation based upon the Experience Study covering the five-year period ended June 30, 2003. We believe that the updated assumptions may generally better reflect prior experience and future expectations. The current actuarial assumptions remain substantially unchanged from those employed in the prior actuarial valuations.

**Process for Assumption Setting:** The principles set forth in Actuarial Standards of Practice (ASOP) No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations* guide the proper selection of **economic assumptions**. In particular, they proscribe that the actuary develop a best estimate range for each economic assumption, and then recommend a specific point within that range. After completing the assumption process, the actuary should review the set of economic assumptions for consistency.

The economic assumptions may be reasonable and appropriate; however, we have found no demonstration or rationale to support the changes made effective July 1, 2004. We note the inflation assumption (3.0%) may be at the lower end of the range of reasonable long term inflation assumptions.

While the economic assumptions may be reasonable, best practices would dictate documentation of the rationale for such changes.

The principles set forth in ASOP No. 35, *Selection of Demographic and Other **Noneconomic Actuarial Assumptions** for Measuring Pension Obligations* guide the proper selection of the remaining actuarial assumptions. In particular, they proscribe the actuary to use professional judgment to estimate possible future outcomes based on past experience and future expectations, and select assumptions based upon application of that professional judgment. The actuary should select reasonable demographic assumptions in light of the particular characteristics of the System that is the subject of the measurement. A reasonable assumption is one that is expected to appropriately model the contingency being measured and is not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

The following comments on the remaining actuarial assumptions remain valid.

1. **Early retirement / withdrawal rates** – Early retirement and withdrawal rates are combined due to the somewhat unusual early retirement eligibility under the System (completion of six years of service regardless of age). The valuation assumes early retirement (immediate reduced benefit commencement) for vested members leaving employment within ten years of normal retirement. All other vested terminations are assumed to elect an unreduced deferred benefit commencing at normal retirement date.

These rates reflect ten (10) year select and ultimate rates. It may be common to use a select period that coincides with the vesting period (6 years vs. 10 years). Also, we are unaware of any analysis to determine experience relating to members electing immediate reduced benefits vs. deferring unreduced benefits to normal retirement date.

In addition, some of the rates were contrary to observed experience in the latest Experience Study. For example, the rates for the Special Risk Class 10+ years were reduced notwithstanding the fact that observed exits exceeded expectations based upon

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the prior rates.

2. **Retirement rates and DROP** – We have discussed in detail issues relating to the treatment of current and future DROPs (see Paragraph A).

In brief, two sets of retirement rates are determined. Set one does not reflect the probability of entering the DROP. Set 2 reflects the probability of entering the DROP. The Actuarial Valuation Report is substantially based upon Set 1 retirement rates.

As stated above, we believe the Report should substantially reflect Set 2 retirement rates. The allocation of the contribution to Classes could be included in the Report based upon Step 1 rates consistent with our understanding of policy decisions.

3. **Inactive mortality and disabled mortality rates** - The inactive mortality rates (separate male and female rates) used for all Classes were updated to reflect experience (higher than expected observed mortality - except for disabled males).

The following summarizes the inactive healthy and disabled experience for the Classes with most of the observed experience.

We continue to be surprised that assumed mortality rates for disabled members for each gender are selected from different published mortality studies. In fact, there was a minimal amount of observed disabled mortality experience during the Experience Study period.

In addition, the female healthy inactive mortality rates appear to overshoot the observed rates from the Experience Study and do not appear to leave margin for conservatism. We continue to be uncertain as to why the updated rates warrant the 115% increase over the published mortality rates. The updated rates are projected (generational as described below) which may offset some of this lack of conservatism shown above.

*C. The specific economic and demographic assumptions used are arrived at from a sufficient level of detail considered, and are reasonable in light of recent experience. Such analysis should also comment on the collective effect of all assumptions.*

Except for the economic assumptions referred to in Paragraph B, the actuarial assumptions were for the most part examined in the recently completed Experience Study.

In Paragraph B (above) we have provided our insights regarding the economic and demographic assumptions in light of the Experience Study.

The accounting expense and disclosure assumptions appear to have been derived using approximately a 4% increasing payroll assumption for purposes of amortization of the surplus. We believe this assumption should be disclosed in the Actuarial Valuation Report.

In addition, the 4% assumption should be based upon reasonable expectations. FRS experience for the most recent three (3) years disclosed on page E-1 as follows:

Fiscal Ended	Payroll Growth
June 30, 2005	4.09%
June 30, 2006	4.72%
June 30, 2007	4.23%

F.S., 112.64(5)(a) provides - *If the amortization schedule for unfunded liability is to be based on a contribution derived in whole or in part from a percentage of the payroll of the system or plan membership, the assumption as to payroll growth shall not exceed the average payroll growth for the 10 years prior to the latest actuarial valuation of the system or plan unless a transfer, merger, or consolidation of government functions or services occurs, in which case the assumptions for payroll growth may be adjusted and may be based on the membership of the retirement plan or system subsequent to such transfer, merger, or consolidation.*

The net effect of the changes in demographic assumptions resulting from the Experience Study was to make the collective actuarial basis less conservative. This was born out by the reduction in the actuarial accrued liability sourced from the changes in actuarial assumptions shown in the July 1, 2004 Actuarial Valuation Report.

- D. *The Departments actuaries provide sufficient information as to causes for gains, losses, and net change in the unfunded liability to allow evaluation of specific factors.*

The July 1, 2007 Actuarial Valuation Report provides information on actuarial gains and losses and net change in unfunded liability on several different pages.

The Executive Summary of the Report breaks out gains and losses by source for the actuarial accrued liability. Gains and losses by source are first determined based upon the total actuarial accrued liability (exclusive of gains and losses from assumed investment return) followed by the effect on the unfunded actuarial accrued liability showing the loss from investment return.

The System experienced an actuarial **gain of \$0.026 billion** during fiscal year ended June 30, 2007. This amount is not explicitly shown in the Executive Summary. We believe this is a key result which should be readily available to reader of this Report. In addition, this gain is impacted by the nontraditional treatment of liabilities for the DROP.

We note that Chapter 60T-1, Florida Administrative Code establishes requirements for Actuarial Reports for Florida *local law* public employee retirement systems. F.A.C, Chapter 60T-1.001(2) provides **Scope and Purpose**... *The objectives of this chapter are to enhance and further clarify the intent of Part VII, Chapter 112, Florida Statutes, so that governmental retirement systems may be managed, administered, operated, and funded in such manner as to*

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maximize the protection of public employee retirement benefits. Inherent in this intent is the recognition that the pension liabilities attributable to the benefits promised public employees be fairly, orderly, and equitably funded by the current, as well as future, taxpayers.

F.A.C., Chapter 60T-1.003(4)(h) provides **Actuarial Reports**... Disclosure, for each plan year, of the derivation of the current unfunded actuarial accrued liability from the amount established as of the immediately preceding valuation date. (Unfunded actuarial accrued liabilities are amortized by nonemployee contributions in excess of normal cost and interest requirements.) The disclosure shall, minimally, include the following:

1 Total unfunded actuarial accrued liability for the immediately prior actuarial valuation date (state date)	\$ _____
2. Plan sponsor normal cost for this plan year	\$ _____
3. Interest accrued on 1. and 2.	\$ _____
4. Plan sponsor contributions for this plan year (including amounts expected to be paid)	\$ _____
5. Interest on 4.	\$ _____
6. Changes due to a. + b. + c. + d.	
a. assumptions	\$ _____
b. funding method	\$ _____
c. plan amendments	\$ _____
d. actuarial gain/loss	\$ _____
7. Total current unfunded actuarial accrued liability	
1. + 2. + 3. - 4. - 5. + 6.	\$ _____

If this information must be provided by all local law public retirement systems in Florida, it seems reasonable and appropriate for it to be included in the FRS Actuarial Valuation Report. We believe this information adds value for the reader and imposes a discipline on the Report preparer.

In addition, we believe it may be more appropriate to determine actuarial gains and losses fully recognizing the probability of future DROPs and traditional treatment of current DROPs. This is the Step 2 approach described above and the required approach for GASB reporting.

We believe the Step 1 approach may only be appropriate for contribution allocation.

Liability actuarial (gains) / losses are reported by source on page I-6 of the Report. We note that the major source of actuarial (gain) / loss identified this year is a loss due to *inactive data clean-up* of 1.172 billion. Similarly the last two years, the major source of actuarial (gain) / loss identified was a loss due to *inactive data clean-up* of 1.143 billion and 1.317 billion, respectively. We understand a major part of this liability is a result of the valuation actuary's overstatement of mortality gains for the death of retired members who have elected joint and survivor benefits. We understand these overstated mortality gains are offset by losses included as part of the inactive data clean-up. We believe effort is warranted to maintain accurate data to ensure the validity of reported actuarial results.

E. *The Departments actuaries' actuarial report adequately provides necessary information that another actuary, unfamiliar with the situation, would find sufficient to appraise the findings and arrive at reasonably similar results.*

The Actuarial Valuation Report provides significant information. Both in terms of importance and in volume. The FRS is complicated and the valuation methods employed are somewhat non-traditional for: (1) certain benefits (DROP), (2) the allocation of contribution requirement by Class and (3) the use of the Rate Stabilization Mechanism.

In addition to our comments in the above paragraphs, we believe that additional information would be both helpful and appropriate. We are pleased to see the actuarial present value of future benefits and the actuarial present value of future pay disclosed this year. We note these disclosures do not reflect the Step 2 assumptions for future DROPs.

As detailed later in this Review, we requested and were provided with these actuarial present values by Class were requested and provided further broken down by decrement. This detail was provided both under the retirement assumptions that do not recognize future DROPs (Step 1 retirement assumptions) and fully recognizing future DROPs (Step 2). This is the basis for our validation of the results of the actuarial valuation.

We believe the Report could be further improved by providing additional prior year results along with side-by-side current year results as appropriate. The reader of the Report would gain insight from a ready comparison both in terms of changes in absolute value and percentage changes.

We may again look to Chapter 60T-1, Florida Administrative Code which endorses the prior year / current year side by side comparison along with suggestions of key valuation disclosures.

F.A.C., Chapter 60T-1.003(4)(h) provides **Actuarial Reports...** (l) *A comparative summary of principal valuation results, essentially in the following format:*

**COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS**

*(Not a required format – to be used as a guide only)*

	<i>Actuarial Valuation Prepared as of</i> <i>Current Date</i>	<i>Prior Date</i>
<i>1. Participant Data</i>		
<i>Active members</i>	#	#
<i>Total annual payroll</i>	\$	\$
<i>Retired members and beneficiaries (other than disabled)</i>	#	#
<i>Total annualized benefit</i>	\$	\$
<i>Disabled members receiving benefits</i>	#	#
<i>Total annualized benefit</i>	\$	\$
<i>Terminated vested members</i>	#	#

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<i>Total annualized benefit</i>	\$	\$
2. <i>Assets</i>		
<i>Actuarial value of assets</i>	\$	\$
<i>Market value of assets</i>	\$	\$
3. <i>Liabilities</i>		
<i>Present value of all future expected benefit payments:</i>		
<i>Active members</i>	\$	\$
<i>Retirement benefits</i>	\$	\$
<i>Vesting benefits</i>	\$	\$
<i>Disability benefits</i>	\$	\$
<i>Death benefits</i>	\$	\$
<i>Return of contribution</i>	\$	\$
<i>Total</i>	\$	\$
<i>Terminated vested members</i>	\$	\$
<i>Retired members and beneficiaries:</i>		
<i>Retired (other than disabled) and beneficiaries</i>	\$	\$
<i>Disabled members</i>	\$	\$
<i>Total</i>	\$	\$
<i>Total present value of all future expected benefit payments</i>	\$	\$
<i>Liabilities due and unpaid</i>	\$	\$
<i>*Actuarial accrued liability</i>	\$	\$
<i>*Unfunded actuarial accrued liability</i>	\$	\$
<i>*Refers to liabilities not funded by future normal cost contributions. Show amount, date and amortization period a establishment, and current amount of each such liability not amortized</i>		
4. <i>Actuarial present value of accrued benefits (to be determined in accordance with a. and b. below)</i>		
<i>Statement of actuarial present value of all accrued benefits</i>		
<i>Vested accrued benefits</i>	\$	\$
<i>Inactive members and beneficiaries</i>	\$	\$
<i>Active members (includes nonforfeitable accumulated member contributions in the amount of)</i>	\$	\$
<i>Total value of all vested accrued benefits</i>	\$	\$
<i>Non-vested accrued benefits</i>	\$	\$
<i>Total actuarial present value of all accrued benefits</i>	\$	\$
<i>Statement of changes in total actuarial</i>		

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<i>present value of all accrued benefits</i>	_____	_____
<i>Actuarial present value of accrued benefits at beginning of year</i>	\$ _____	
<i>Increase (decrease) during year attributable to (where applicable):</i>		
<i>Plan amendment</i>	\$ _____	
<i>Changes in actuarial assumptions</i>	\$ _____	
<i>Increase for interest and probability of payment due to decrease in discount period and benefits accrued</i>	\$ _____	
<i>Benefits paid</i>	\$ _____	
<i>Other changes (identify and state amount)</i>	\$ _____	
<i>Net increase (decrease)</i>	\$ _____	
<i>Actuarial present value of accrued benefits at end of year</i>	\$ _____	
<p>a. <i>Accrued benefits are those future promised benefits that are determined in accordance with the plan's provisions based on the service members have rendered to the actuarial valuation date. Accrued benefits are those payable under all applicable plan circumstances – retirement, death, disability, and termination of employment – to the extent they are deemed attributable to member service rendered to the valuation date. Benefits to be provided by insured contracts for which the plan sponsor has no future liability and which are excluded from plan assets are to be excluded from plan benefits.</i></p> <p>b. <i>All determinations are to be on a consistent basis. Any change is to be disclosed, together with an explanation. The exhibit entries for the actuarial valuation date as of which a change is made shall show the entries on a before and after change basis.</i></p>		
5. <i>Pension cost (specify applicable funding period)</i>		
<i>Normal cost (show cost for each benefit if so calculated and amount of administrative expenses, if applicable.)</i>		
	\$ _____	\$ _____
<i>Payment to amortize unfunded liability</i>	\$ _____	\$ _____
<i>Expected plan sponsor contribution (including normal cost, amortization payment and interest, as applicable)</i>	\$ _____	\$ _____
<i>As % of payroll</i>	_____ %	_____ %
<i>Amount to be contributed by members</i>	\$ _____	\$ _____
<i>As % of payroll</i>	_____ %	_____ %
6. <i>Past contributions</i>		
<i>For each plan year since last report:</i>		
<i>Required plan sponsor contribution</i>	\$ _____	\$ _____
<i>Required member contribution</i>	\$ _____	\$ _____
<i>Actual contributions made by:</i>		
<i>Plan's sponsor</i>	\$ _____	\$ _____
<i>Members</i>	\$ _____	\$ _____
<i>Other (e.g., Chapters 175 or 185, F.S.)</i>	\$ _____	\$ _____
7. <i>Net actuarial gain (loss) (if applicable)</i>	\$ _____	\$ _____
8. <i>Other disclosures (where applicable)</i>		



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*Present value of active member:*

<i>Future salaries</i>		
<i>at attained age</i>	\$	\$
<i>at entry age</i>	\$	\$
<i>Future contributions</i>		
<i>at attained age</i>	\$	\$
<i>at entry age</i>	\$	\$
<i>Present value of future contributions from other sources (identify)</i>	\$	\$
<i>Present value of future expected benefit payments for active members at entry age</i>	\$	\$

The impact of the merger of assets and liabilities from IFAS to FRS could be more fully disclosed (i.e. page V-5).

- F. *The Deferred Retirement Option Program (DROP) liability has been calculated and presented in an actuarially acceptable method for GAAP*

The DROP liability as reported in the accounting information Tables V – 6 through 9 of the Report is consistent with our understanding of GAAP. The liabilities reflect the assumption of future DROPs (Step 2).

For substantially all of the remainder of the Report, we believe the DROP liability is presented in a nontraditional manner.

- G. *Amortization of the unfunded accrued liability under the RSM is presented and calculated in accordance with amortization periods allowed by GASB*

The RSM is provided for in F.S., section 121.031(3)(f) and reads as follows:

*f) The actuarial model used to determine the adequate level of funding for the Florida Retirement System shall include a specific rate stabilization mechanism, as prescribed herein. It is the intent of the Legislature to maintain as a reserve a specific portion of any actuarial surplus, and to use such reserve for the purpose of offsetting future unfunded liabilities caused by experience losses, thereby minimizing the risk of future increases in contribution rates. It is further the intent of the Legislature that the use of any excess above the reserve to offset retirement system normal costs shall be in a manner that will allow system employers to plan appropriately for resulting cost reductions and subsequent cost increases. The rate stabilization mechanism shall operate as follows:*

- 1. The actuarial surplus shall be the value of actuarial assets over actuarial liabilities, as is determined on the preceding June 30 or as may be estimated on the preceding December 31.*

2. *The full amount of any experience loss shall be offset, to the extent possible, by any actuarial surplus.*

3. *If the actuarial surplus exceeds 5 percent of actuarial liabilities, one-half of the excess may be used to offset total retirement system costs. In addition, if the actuarial surplus exceeds 10 percent of actuarial liabilities, an additional one-fourth of the excess above 10 percent may be used to offset total retirement system costs. In addition, if the actuarial surplus exceeds 15 percent of actuarial liabilities, an additional one-fourth of the excess above 15 percent may be used to offset total retirement system costs.*

4. *Any surplus amounts available to offset total retirement system costs pursuant to subparagraph 3. should be amortized each year over a 10-year rolling period on a level-dollar basis.*

The unfunded liability including the DROP liability calculated under a GASB compliant method (Step 2 – recognizing future DROPs) is shown on Table V–5 of the Report as (\$6.714) billion. The amortization of surplus shown on page I–3 is (\$174) million under the RSM. A 30-year amortization of the (\$6.714) billion unfunded is approximately (\$357) million assuming a 4% payroll growth assumption. Since the absolute value of the surplus amortization using the RSM is less than the absolute value of the 30-year amortization under GASB, we believe the amortization may not be GASB compliant.

Covered annual payroll as of July 1, 2007 is \$23,793 million as shown on page C-28 of the Actuarial Valuation Report. Covered annual payroll shown on the July 1, 2006 and 2005 Actuarial Valuation Reports is \$22,822 million and \$21,792 million, respectively.

As previously stated, a 4% payroll growth assumption would tend to be supportable during the period of our retention as reviewing actuaries.

The following is the Q&A from the GASB *Comprehensive Implementation Guide* dealing with amortization of surplus.

5.13.4. *Q—If a defined benefit pension plan is fully funded or overfunded, is the amortization period zero? (Q&A25/26/27-40)*

*A—The amortization period is zero only if the plan is fully funded (actuarial value of plan assets equal to actuarial accrued liabilities). If the plan is overfunded, the amount of the excess should be amortized (just as the unfunded actuarial accrued liability should be amortized if the plan is underfunded). (See question 5.45.14 for a discussion of the appropriate treatment when amortization of a funding excess mathematically would result in an ARC that is less than zero.)*

**Under GASB standards, expense should include provisions for amortizing the total unfunded actuarial liability (UAL), whether the UAL is positive or negative.** Consequently, a negative unfunded accrued liability (surplus) is required to be amortized (See Guide to

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Implementation of GASB Statements 25, 26 and 27 on Pension Reporting and Disclosure by State and Local Government Plans and Employers - Question 40) and GASB Statement 27 (Footnote 10).

In general, the maximum amortization period is 30 years for fiscal year ended June 30, 2007 (See Guide to Implementation of GASB Statements 25, 26 and 27 on Pension Reporting and Disclosure by State and Local Government Plans and Employers - Question 41) and GASB Statement 27 (Paragraph 10.f.1.).

We are not aware of any additional GASB pronouncements that deal definitively with the amortization of surplus; however, we understand GASB has a consistent and clear preference for treating overfunded and underfunded liabilities in the same manner. Consequently, we believe it is likely that, if asked, GASB would reply that a maximum equivalent single amortization period of 30 years would indeed be applicable to the FRS overfunded situation, and that the amortization of the unfunded accrued liability under the RSM is not presented and calculated in accordance with amortization periods allowed by GASB. If FRS wishes a more definitive determination of GASB's position on the maximum amortization period for surplus, we suggest that GASB be contacted directly.

In addition, while this year's amortization resulting from the RSM and treatment of the DROP Liability may not be sufficient for the minimum amortization under GASB, due to the interaction of the treatment of the DROP for both purposes of liability and determination of surplus for the RSM along with the RSM, we believe there is no assurance of continued future compliance or non-compliance with the minimum GASB for purposes of amortization of the unfunded accrued liability.

Finally, we note the difference between the RSM recognition (\$174) and the 30-year amortization under GASB (\$357) is (\$183) million. One might find this not to be a material amount.

*H. Any Plan changes that would adversely impact the Plan's compliance with OMB's A-87 cost principles*

The Report indicates that the IFAS assets and liabilities were merged with FRS. Based upon the relative sizes of FRS and IFAS this appears to be a de minimis event for FRS.

One might consider the fact that the RSM recognition of surplus may not be in compliance with GASB amortization to be an adverse impact on the Plan's compliance with OMB's A-87 cost principles.

We note the difference between the RSM recognition (\$174) and the 30-year amortization under GASB (\$357) is (\$183) million. As above, one might find this amount not to be material.

*I. Other aspects of the Department's actuaries' work and report are sufficient*

As stated above, the Actuarial Valuation Report provides significant information. We believe that disclosures of the normal costs and actuarial liabilities fully reflecting the DROP are appropriate.

F.S. 121.031(3)(a) provides *The valuation of plan assets shall be based on a 5-year averaging methodology such as that specified in the United States Department of Treasury Regulations, 26 C.F.R. s. 1.412(c)(2)-1, or a similar accepted approach designed to attenuate fluctuations in asset values.*

The July 1, 2007 actuarial value of assets method starts with the July 1, 2006 actuarial value of assets and determines an expected actuarial value of assets as of July 1, 2007 assuming the expected fund return (7.75% for fiscal 2007) recognizing non-investment cash flows. The July 1, 2007 actuarial value of assets is the July 1, 2007 expected actuarial value plus 20% of the excess (deficiency) of July 1, 2007 market value of assets over the July 1, 2007 expected value of assets.

We believe this actuarial value of assets method is an acceptable method under Treasury regulations and complies with Florida statute. However, we note that if a private retirement plan covered by the above Treasury regulation were to switch from another approved method to this method, the private retirement plan would require prior IRS approval. This is not the case with other pre-approved methods. We believe that a method subject to automatic approval may be preferable.

A deficiency of the current actuarial value of assets method is that if actual investment returns exactly matched expected investment returns over the 5-year averaging period, the actuarial value would not equal the market value.

We note the assumption that all TRS, SCOERS and IFAS age 70 and above are assumed to retire immediately on page A-4 of the Report Appendix differs from the age 60 assumption disclosed in the July 1, 2006 Report.

## **Replication of July 1, 2007**

## **Actuarial Valuation Results**

#### **IV. Replication of key financial results of the July 1, 2007 Actuarial Valuation**

In this phase of the review, GRS reviewed the calculated values (present value of benefits) supplied by the Department's actuaries subdivided by Class and type of benefit for active members (i.e., service retirement, vesting and reduced retirement, ordinary and service disability, ordinary and service death, and refunds of contributions) and pensioners by category (retirees, terminated vesteds and current DROPS) divided by Class. In addition, we reviewed the calculation of the present values of future salaries divided by Class.

The following tables compare the results of the System actuaries and GRS calculations of present value of benefits and future compensation for each Class under regular retirement rates and increased retirement rates that reflect anticipated future DROPS.

GRS established quantitative measures to determine whether, on a present value line by line basis (i.e., retired members, beneficiaries, active retirement, death, disability, etc.), results calculated separately by GRS and the System actuaries agreed with each other to within reasonable tolerances. One of our quantitative tests is the ratio of the line present value calculated by GRS to the line present value calculated by the System actuaries. To PASS this test requires a difference not in excess of 5.0%. This test is sensitive to the size of the line present value that is measured in thousand dollar increments. For example, the present value for return of contributions for active Senior Management (No Future DROP Retirement Rates) (SM) Class members is ten (10). A GRS calculation of anything but ten (10) would fail this 5.0% test. In fact, GRS calculated fourteen (14), which is only off by four (4) but fails the percentage test (40%).

Measure Two of our quantitative test is the ratio of the difference between the line present value calculation of the System actuaries and the GRS line present value calculation divided by the total liability calculated by the System actuaries. To PASS this test requires a ratio within 0.5%. The present value for return of contributions for active Senior Management (No Future DROP Retirement Rates) (SM) Class members mentioned above clearly passes this test (less than 0.00% ratio) as expected due to the minimal dollar difference. A PASS is assigned to each line present value only if Measure One or Measure Two is passed.

Every line liability PASSES for all Classes and for both retirement rate assumption sets and in our opinion our results have verified the calculations of the Department's actuaries. Our results should not replace the results of the System actuaries. Our calculations are sufficient only for the purpose intended (actuarial review) and are not suitable for any other purpose.

<b><i>FLORIDA RETIREMENT SYSTEM</i></b>			<b>GRAND TOTAL - - No Future DROPs Retirement Rates</b>					
<b>(\$ 000)</b>			<b>Liability Test</b>					
	<b>M&amp;R</b>	<b>GRS</b>	<b>Liability Ratio</b>		<b>Individual</b>	<b>PVFB</b>	<b>Composite</b>	
			<b>Individual</b>	<b>Total</b>	<b>5%</b>	<b>0.5%</b>		
<b><i>Active PVFB</i></b>								
Withdrawal / Early Retirement	\$ 14,525,036	\$ 14,205,242	(0.0220)	(0.0022)	Pass	Pass	Pass	
Retirement	64,012,580	64,704,795	0.0108	0.0048	Pass	Pass	Pass	
Non-Duty Death	1,396,098	1,388,746	(0.0053)	(0.0001)	Pass	Pass	Pass	
Duty Death	531,145	611,372	0.1510	0.0006	Fail	Pass	Pass	
Non-Duty Disability	2,702,176	2,863,536	0.0597	0.0011	Fail	Pass	Pass	
Duty Disability	693,117	784,834	0.1323	0.0006	Fail	Pass	Pass	
Return of Contributions	1,484	1,087	(0.2673)	0.0000	Fail	Pass	Pass	
Subtotal	\$ 83,861,636	\$ 84,559,612	0.0083	0.0048	Pass	N/A	Pass	
Less PVF Contributions	4,550	4,550	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 83,857,086</b>	<b>\$ 84,555,062</b>	<b>0.0083</b>	<b>0.0048</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
Count	598,438	598,438	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 227,455,796	\$ 233,531,053	0.0267	N/A	Pass	N/A	Pass	
<b><i>Inactive PVFB</i></b>								
Retirees	\$ 43,583,228	\$ 44,790,176	0.0277	0.0084	Pass	Fail	Pass	
Terminated Vesteds	3,824,114	3,853,478	0.0077	0.0002	Pass	Pass	Pass	
DROPs	12,920,751	13,115,376	0.0151	0.0013	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 60,328,093</b>	<b>\$ 61,759,030</b>	<b>0.0237</b>	<b>0.0099</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
<b>Total</b>	<b>\$ 144,185,179</b>	<b>\$ 146,314,092</b>	<b>0.0148</b>	<b>0.0148</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Special Risk Admin (SRA) - - No Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 1,903	\$ 2,238	0.1760	0.0038	<b>Fail</b>	Pass	Pass	
Retirement	14,046	13,959	(0.0062)	(0.0010)	Pass	Pass	Pass	
Non-Duty Death	271	233	(0.1402)	(0.0004)	<b>Fail</b>	Pass	Pass	
Duty Death	123	141	0.1463	0.0002	<b>Fail</b>	Pass	Pass	
Non-Duty Disability	505	533	0.0554	0.0003	<b>Fail</b>	Pass	Pass	
Duty Disability	281	324	0.1530	0.0005	<b>Fail</b>	Pass	Pass	
Return of Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
Subtotal	\$ 17,129	\$ 17,428	0.0175	0.0034	Pass	N/A	Pass	
Less PVF Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 17,129</b>	<b>\$ 17,428</b>	<b>0.0175</b>	<b>0.0034</b>	<b>Pass</b>	N/A	<b>Pass</b>	
Count	64	64	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 25,759	\$ 26,244	0.0188	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 62,976	\$ 64,531	0.0247	0.0177	Pass	<b>Fail</b>	Pass	
Terminated Vesteds	1,516	1,527	0.0073	0.0001	Pass	Pass	Pass	
DROPs	<u>6,281</u>	<u>6,354</u>	0.0116	0.0008	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 70,773</b>	<b>\$ 72,412</b>	<b>0.0232</b>	<b>0.0186</b>	<b>Pass</b>	N/A	<b>Pass</b>	
<b>Total</b>	<b>\$ 87,902</b>	<b>\$ 89,840</b>	<b>0.0220</b>	<b>0.0220</b>	<b>Pass</b>	N/A	<b>Pass</b>	



<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Special Risk (SR) - - No Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 2,258,118	\$ 2,227,236	(0.0137)	(0.0010)	Pass	Pass	Pass	
Retirement	17,066,528	17,128,813	0.0036	0.0020	Pass	Pass	Pass	
Non-Duty Death	342,668	392,665	0.1459	0.0016	Fail	Pass	Pass	
Duty Death	167,999	218,258	0.2992	0.0016	Fail	Pass	Pass	
Non-Duty Disability	724,519	765,186	0.0561	0.0013	Fail	Pass	Pass	
Duty Disability	398,838	466,726	0.1702	0.0022	Fail	Pass	Pass	
Return of Contributions	<u>1</u>	<u>34</u>	33.0000	0.0000	Fail	Pass	Pass	
Subtotal	\$ 20,958,671	\$ 21,198,918	0.0115	0.0078	Pass	N/A	Pass	
Less PVF Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 20,958,671</b>	<b>\$ 21,198,918</b>	<b>0.0115</b>	<b>0.0078</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
Count	66,204	66,204	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 41,397,351	\$ 42,057,392	0.0159	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 7,378,150	\$ 7,587,518	0.0284	0.0068	Pass	Fail	Pass	
Terminated Vesteds	531,863	536,020	0.0078	0.0001	Pass	Pass	Pass	
DROPs	<u>2,067,289</u>	<u>2,097,310</u>	0.0145	0.0010	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 9,977,302</b>	<b>\$ 10,220,848</b>	<b>0.0244</b>	<b>0.0079</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
<b>Total</b>	<b>\$ 30,935,973</b>	<b>\$ 31,419,766</b>	<b>0.0156</b>	<b>0.0156</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Senior Management (SM) - - No Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 302,009	\$ 297,996	(0.0133)	(0.0011)	Pass	Pass	Pass	
Retirement	1,922,874	1,920,926	(0.0010)	(0.0005)	Pass	Pass	Pass	
Non-Duty Death	44,117	45,524	0.0319	0.0004	Pass	Pass	Pass	
Duty Death	12,616	13,720	0.0875	0.0003	Fail	Pass	Pass	
Non-Duty Disability	43,006	45,376	0.0551	0.0006	Fail	Pass	Pass	
Duty Disability	6,910	7,488	0.0836	0.0002	Fail	Pass	Pass	
Return of Contributions	<u>10</u>	<u>14</u>	0.4000	0.0000	Fail	Pass	Pass	
Subtotal	\$ 2,331,542	\$ 2,331,044	(0.0002)	(0.0001)	Pass	N/A	Pass	
Less PVF Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$2,331,542</b>	<b>\$2,331,044</b>	<b>(0.0002)</b>	<b>(0.0001)</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
Count	6,070	6,070	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 4,552,626	\$ 4,702,172	0.0328	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 807,430	\$ 823,960	0.0205	0.0045	Pass	Pass	Pass	
Terminated Vesteds	123,897	124,855	0.0077	0.0003	Pass	Pass	Pass	
DROPs	<u>384,971</u>	<u>390,768</u>	0.0151	0.0016	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$1,316,298</b>	<b>\$1,339,583</b>	<b>0.0177</b>	<b>0.0064</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
<b>Total</b>	<b>\$3,647,840</b>	<b>\$3,670,627</b>	<b>0.0062</b>	<b>0.0062</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Regular (REG) + TRS + SCOERS + IFAS - - No Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal/ Early Retirement	\$ 11,860,856	\$ 11,577,871	(0.0239)	(0.0026)	Pass	Pass	Pass	
Retirement	44,275,754	44,900,750	0.0141	0.0058	Pass	Fail	Pass	
Non-Duty Death	974,933	909,756	(0.0669)	(0.0006)	Fail	Pass	Pass	
Duty Death	343,430	372,474	0.0846	0.0003	Fail	Pass	Pass	
Non-Duty Disability	1,913,825	2,031,405	0.0614	0.0011	Fail	Pass	Pass	
Duty Disability	282,880	305,827	0.0811	0.0002	Fail	Pass	Pass	
Return of Contributions	1,444	1,012	(0.2990)	0.0000	Fail	Pass	Pass	
Subtotal	\$ 59,653,122	\$ 60,099,095	0.0075	0.0041	Pass	N/A	Pass	
Less PVF Contributions	4,550	4,550	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 59,648,572</b>	<b>\$ 60,094,545</b>	<b>0.0075</b>	<b>0.0041</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
Count	524,235	524,235	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$179,925,181	\$ 185,162,962	0.0291	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 34,534,563	\$ 35,499,759	0.0279	0.0090	Pass	Fail	Pass	
Terminated Vesteds	3,116,910	3,140,766	0.0077	0.0002	Pass	Pass	Pass	
DROPs	10,193,677	10,348,232	0.0152	0.0014	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 47,845,150</b>	<b>\$ 48,988,757</b>	<b>0.0239</b>	<b>0.0106</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
<b>Total</b>	<b>\$ 107,493,722</b>	<b>\$ 109,083,302</b>	<b>0.0148</b>	<b>0.0148</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Judicial (J) - - No Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 56,464	\$ 55,180	(0.0227)	(0.0010)	Pass	Pass	Pass	
Retirement	530,778	537,160	0.0120	0.0050	Pass	Pass	Pass	
Non-Duty Death	25,590	30,651	0.1978	0.0040	Fail	Pass	Pass	
Duty Death	5,158	4,968	(0.0368)	(0.0001)	Pass	Pass	Pass	
Non-Duty Disability	15,457	15,910	0.0293	0.0004	Pass	Pass	Pass	
Duty Disability	3,214	3,384	0.0529	0.0001	Fail	Pass	Pass	
Return of Contributions	<u>4</u>	<u>6</u>	0.5000	0.0000	Fail	Pass	Pass	
Subtotal	\$ 636,665	\$ 647,259	0.0166	0.0083	Pass	N/A	Pass	
Less PVF Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 636,665</b>	<b>\$ 647,259</b>	<b>0.0166</b>	<b>0.0083</b>	<b>Pass</b>	N/A	<b>Pass</b>	
Count	803	803	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 1,134,368	\$ 1,149,498	0.0133	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 444,380	\$ 450,275	0.0133	0.0046	Pass	Pass	Pass	
Terminated Vesteds	18,341	18,482	0.0077	0.0001	Pass	Pass	Pass	
DROPs	<u>178,311</u>	<u>181,122</u>	0.0158	0.0022	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 641,032</b>	<b>\$ 649,879</b>	<b>0.0138</b>	<b>0.0069</b>	<b>Pass</b>	N/A	<b>Pass</b>	
<b>Total</b>	<b>\$1,277,697</b>	<b>\$1,297,138</b>	<b>0.0152</b>	<b>0.0152</b>	<b>Pass</b>	N/A	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Legislative - Attorney - Cabinet (ESO) - - No Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 8,318	\$ 8,313	(0.0006)	0.0000	Pass	Pass	Pass	
Retirement	22,415	22,302	(0.0050)	(0.0010)	Pass	Pass	Pass	
Non-Duty Death	1,038	1,226	0.1811	0.0017	Fail	Pass	Pass	
Duty Death	229	222	(0.0306)	(0.0001)	Pass	Pass	Pass	
Non-Duty Disability	593	626	0.0556	0.0003	Fail	Pass	Pass	
Duty Disability	132	141	0.0682	0.0001	Fail	Pass	Pass	
Return of Contributions	<u>2</u>	<u>2</u>	0.0000	0.0000	Pass	Pass	Pass	
Subtotal	\$ 32,727	\$ 32,832	0.0032	0.0010	Pass	N/A	Pass	
Less PVF Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 32,727</b>	<b>\$ 32,832</b>	<b>0.0032</b>	<b>0.0010</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
Count	127	127	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 47,603	\$ 48,952	0.0283	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 49,241	\$ 50,727	0.0302	0.0135	Pass	Fail	Pass	
Terminated Vesteds	8,348	8,411	0.0075	0.0006	Pass	Pass	Pass	
DROPs	<u>19,609</u>	<u>19,892</u>	0.0144	0.0026	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 77,198</b>	<b>\$ 79,030</b>	<b>0.0237</b>	<b>0.0167</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
<b>Total</b>	<b>\$ 109,925</b>	<b>\$ 111,862</b>	<b>0.0176</b>	<b>0.0176</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Elected County Officials (ECO) - - No Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 37,368	\$ 36,408	(0.0257)	(0.0015)	Pass	Pass	Pass	
Retirement	180,185	180,885	0.0039	0.0011	Pass	Pass	Pass	
Non-Duty Death	7,481	8,691	0.1617	0.0019	Fail	Pass	Pass	
Duty Death	1,590	1,589	(0.0006)	0.0000	Pass	Pass	Pass	
Non-Duty Disability	4,271	4,500	0.0536	0.0004	Fail	Pass	Pass	
Duty Disability	862	944	0.0951	0.0001	Fail	Pass	Pass	
Return of Contributions	<u>23</u>	<u>19</u>	(0.1739)	0.0000	Fail	Pass	Pass	
Subtotal	\$ 231,780	\$ 233,036	0.0054	0.0020	Pass	N/A	Pass	
Less PVF Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 231,780</b>	<b>\$ 233,036</b>	<b>0.0054</b>	<b>0.0020</b>	<b>Pass</b>	N/A	<b>Pass</b>	
Count	935	935	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 372,908	\$ 383,833	0.0293	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 306,488	\$ 313,406	0.0226	0.0109	Pass	Fail	Pass	
Terminated Vesteds	23,239	23,417	0.0077	0.0003	Pass	Pass	Pass	
DROPs	<u>70,613</u>	<u>71,698</u>	0.0154	0.0017	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 400,340</b>	<b>\$ 408,521</b>	<b>0.0204</b>	<b>0.0129</b>	<b>Pass</b>	N/A	<b>Pass</b>	
<b>Total</b>	<b>\$ 632,120</b>	<b>\$ 641,557</b>	<b>0.0149</b>	<b>0.0149</b>	<b>Pass</b>	N/A	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>			<b>GRAND TOTAL - - Future DROPs Retirement Rates</b>					
<b>(\$ 000)</b>			<b>Liability Test</b>					
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 14,525,036	\$ 14,206,802	(0.0219)	(0.0022)	Pass	Pass	Pass	
Retirement	65,474,699	66,189,215	0.0109	0.0049	Pass	Pass	Pass	
Non-Duty Death	1,243,095	1,235,163	(0.0064)	(0.0001)	Pass	Pass	Pass	
Duty Death	496,192	574,799	0.1584	0.0005	Fail	Pass	Pass	
Non-Duty Disability	2,522,849	2,670,027	0.0583	0.0010	Fail	Pass	Pass	
Duty Disability	646,336	726,010	0.1233	0.0005	Fail	Pass	Pass	
Return of Contributions	<u>1,484</u>	<u>1,069</u>	(0.2796)	0.0000	Fail	Pass	Pass	
Subtotal	\$ 84,909,691	\$ 85,603,085	0.0082	0.0048	Pass	N/A	Pass	
Less PVF Contributions	<u>4,501</u>	<u>4,501</u>	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 84,905,190</b>	<b>\$ 85,598,584</b>	<b>0.0082</b>	<b>0.0048</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
Count	598,438	598,438	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 217,982,321	\$ 225,366,763	0.0339	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 43,583,228	\$ 44,790,176	0.0277	0.0083	Pass	Fail	Pass	
Terminated Vesteds	3,824,114	3,853,478	0.0077	0.0002	Pass	Pass	Pass	
DROPs	<u>12,920,751</u>	<u>13,115,376</u>	0.0151	0.0013	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 60,328,093</b>	<b>\$ 61,759,030</b>	<b>0.0237</b>	<b>0.0099</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
<b>Total</b>	<b>\$ 145,233,283</b>	<b>\$ 147,357,614</b>	<b>0.0146</b>	<b>0.0146</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Special Risk Admin (SRA) - - Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 1,903	\$ 2,147	0.1282	0.0028	<b>Fail</b>	Pass	Pass	
Retirement	14,250	14,456	0.0145	0.0023	Pass	Pass	Pass	
Non-Duty Death	245	189	(0.2286)	(0.0006)	<b>Fail</b>	Pass	Pass	
Duty Death	112	122	0.0893	0.0001	<b>Fail</b>	Pass	Pass	
Non-Duty Disability	461	452	(0.0195)	(0.0001)	Pass	Pass	Pass	
Duty Disability	257	280	0.0895	0.0003	<b>Fail</b>	Pass	Pass	
Return of Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
Subtotal	\$ 17,228	\$ 17,646	0.0243	0.0047	Pass	N/A	Pass	
Less PVF Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 17,228</b>	<b>\$ 17,646</b>	<b>0.0243</b>	<b>0.0047</b>	Pass	N/A	Pass	
Count	64	64	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 24,101	\$ 23,406	(0.0288)	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 62,976	\$ 64,531	0.0247	0.0177	Pass	<b>Fail</b>	Pass	
Terminated Vesteds	1,516	1,527	0.0073	0.0001	Pass	Pass	Pass	
DROPs	<u>6,281</u>	<u>6,354</u>	0.0116	0.0008	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 70,773</b>	<b>\$ 72,412</b>	<b>0.0232</b>	<b>0.0186</b>	<b>Pass</b>	N/A	<b>Pass</b>	
<b>Total</b>	<b>\$ 88,001</b>	<b>\$ 90,058</b>	<b>0.0234</b>	<b>0.0234</b>	Pass	N/A	Pass	



<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Special Risk (SR) - - Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 2,258,118	\$ 2,228,899	(0.0129)	(0.0009)	Pass	Pass	Pass	
Retirement	17,449,492	17,669,438	0.0126	0.0070	Pass	Fail	Pass	
Non-Duty Death	314,264	342,910	0.0912	0.0009	Fail	Pass	Pass	
Duty Death	158,878	200,750	0.2635	0.0013	Fail	Pass	Pass	
Non-Duty Disability	671,254	686,947	0.0234	0.0005	Pass	Pass	Pass	
Duty Disability	373,209	425,190	0.1393	0.0017	Fail	Pass	Pass	
Return of Contributions	<u>1</u>	<u>32</u>	31.0000	0.0000	Fail	Pass	Pass	
Subtotal	\$ 21,225,216	\$ 21,554,166	0.0155	0.0105	Pass	N/A	Pass	
Less PVF Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 21,225,216</b>	<b>\$ 21,554,166</b>	<b>0.0155</b>	<b>0.0105</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
Count	66,204	66,204	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 39,919,493	\$ 40,043,969	0.0031	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 7,378,150	\$ 7,587,518	0.0284	0.0067	Pass	Fail	Pass	
Terminated Vesteds	531,863	536,020	0.0078	0.0001	Pass	Pass	Pass	
DROPs	<u>2,067,289</u>	<u>2,097,310</u>	0.0145	0.0010	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 9,977,302</b>	<b>\$ 10,220,848</b>	<b>0.0244</b>	<b>0.0078</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
<b>Total</b>	<b>\$ 31,202,518</b>	<b>\$ 31,775,014</b>	<b>0.0183</b>	<b>0.0183</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Senior Management (SM) - - Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 302,009	\$ 297,996	(0.0133)	(0.0011)	Pass	Pass	Pass	
Retirement	1,958,567	1,957,193	(0.0007)	(0.0004)	Pass	Pass	Pass	
Non-Duty Death	37,519	39,129	0.0429	0.0004	Pass	Pass	Pass	
Duty Death	11,301	12,632	0.1178	0.0004	Fail	Pass	Pass	
Non-Duty Disability	39,087	41,623	0.0649	0.0007	Fail	Pass	Pass	
Duty Disability	6,153	6,817	0.1079	0.0002	Fail	Pass	Pass	
Return of Contributions	10	13	0.3000	0.0000	Fail	Pass	Pass	
Subtotal	\$ 2,354,646	\$ 2,355,403	0.0003	0.0002	Pass	N/A	Pass	
Less PVF Contributions	0	0	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$2,354,646</b>	<b>\$2,355,403</b>	<b>0.0003</b>	<b>0.0002</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
Count	6,070	6,070	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 4,248,394	\$ 4,443,570	0.0459	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 807,430	\$ 823,960	0.0205	0.0045	Pass	Pass	Pass	
Terminated Vesteds	123,897	124,855	0.0077	0.0003	Pass	Pass	Pass	
DROPs	384,971	390,768	0.0151	0.0016	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$1,316,298</b>	<b>\$1,339,583</b>	<b>0.0177</b>	<b>0.0063</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
<b>Total</b>	<b>\$3,670,944</b>	<b>\$3,694,986</b>	<b>0.0065</b>	<b>0.0065</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Regular (REG) +TRS+SCOERS + IFAS - - Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 11,860,856	\$ 11,577,871	(0.0239)	(0.0026)	Pass	Pass	Pass	
Retirement	45,296,453	45,774,535	0.0106	0.0044	Pass	Pass	Pass	
Non-Duty Death	859,570	817,115	(0.0494)	(0.0004)	Pass	Pass	Pass	
Duty Death	319,378	355,079	0.1118	0.0003	Fail	Pass	Pass	
Non-Duty Disability	1,792,613	1,921,310	0.0718	0.0012	Fail	Pass	Pass	
Duty Disability	262,768	289,643	0.1023	0.0002	Fail	Pass	Pass	
Return of Contributions	1,444	997	(0.3096)	0.0000	Fail	Pass	Pass	
Subtotal	\$ 60,393,082	\$ 60,736,550	0.0057	0.0032	Pass	N/A	Pass	
Less PVF Contributions	4,501	4,501	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 60,388,581</b>	<b>\$ 60,732,049</b>	<b>0.0057</b>	<b>0.0032</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
Count	524,235	524,235	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 172,303,560	\$ 179,368,002	0.0410	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 34,534,563	\$ 35,499,759	0.0279	0.0089	Pass	Fail	Pass	
Terminated Vesteds	3,116,910	3,140,766	0.0077	0.0002	Pass	Pass	Pass	
DROPs	10,193,677	10,348,232	0.0152	0.0014	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 47,845,150</b>	<b>\$ 48,988,757</b>	<b>0.0239</b>	<b>0.0106</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	
<b>Total</b>	<b>\$ 108,233,731</b>	<b>\$ 109,720,806</b>	<b>0.0137</b>	<b>0.0137</b>	<b>Pass</b>	<b>N/A</b>	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Judicial (J) - - Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 56,464	\$ 55,180	(0.0227)	(0.0010)	Pass	Pass	Pass	
Retirement	548,801	563,493	0.0268	0.0114	Pass	Fail	Pass	
Non-Duty Death	23,541	26,901	0.1427	0.0026	Fail	Pass	Pass	
Duty Death	4,804	4,535	(0.0560)	(0.0002)	Fail	Pass	Pass	
Non-Duty Disability	14,777	14,888	0.0075	0.0001	Pass	Pass	Pass	
Duty Disability	3,010	3,080	0.0233	0.0001	Pass	Pass	Pass	
Return of Contributions	<u>4</u>	<u>6</u>	0.5000	0.0000	Fail	Pass	Pass	
Subtotal	\$ 651,401	\$ 668,083	0.0256	0.0129	Pass	N/A	Pass	
Less PVF Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 651,401</b>	<b>\$ 668,083</b>	<b>0.0256</b>	<b>0.0129</b>	<b>Pass</b>	N/A	<b>Pass</b>	
Count	803	803	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 1,083,376	\$ 1,078,948	(0.0041)	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 444,380	\$ 450,275	0.0133	0.0046	Pass	Pass	Pass	
Terminated Vesteds	18,341	18,482	0.0077	0.0001	Pass	Pass	Pass	
DROPs	<u>178,311</u>	<u>181,122</u>	0.0158	0.0022	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 641,032</b>	<b>\$ 649,879</b>	<b>0.0138</b>	<b>0.0068</b>	<b>Pass</b>	N/A	<b>Pass</b>	
<b>Total</b>	<b>\$1,292,433</b>	<b>\$1,317,962</b>	<b>0.0198</b>	<b>0.0198</b>	<b>Pass</b>	N/A	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Legislative - Attorney - Cabinet (ESO) - - Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 8,318	\$ 8,313	(0.0006)	0.0000	Pass	Pass	Pass	
Retirement	23,103	23,383	0.0121	0.0025	Pass	Pass	Pass	
Non-Duty Death	961	1,083	0.1270	0.0011	<b>Fail</b>	Pass	Pass	
Duty Death	215	204	(0.0512)	(0.0001)	<b>Fail</b>	Pass	Pass	
Non-Duty Disability	562	579	0.0302	0.0002	Pass	Pass	Pass	
Duty Disability	124	128	0.0323	0.0000	Pass	Pass	Pass	
Return of Contributions	<u>2</u>	<u>2</u>	0.0000	0.0000	Pass	Pass	Pass	
Subtotal	\$ 33,285	\$ 33,692	0.0122	0.0037	Pass	N/A	Pass	
Less PVF Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 33,285</b>	<b>\$ 33,692</b>	<b>0.0122</b>	<b>0.0037</b>	<b>Pass</b>	N/A	<b>Pass</b>	
Count	127	127	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 45,462	\$ 45,855	0.0086	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 49,241	\$ 50,727	0.0302	0.0135	Pass	<b>Fail</b>	Pass	
Terminated Vesteds	8,348	8,411	0.0075	0.0006	Pass	Pass	Pass	
DROP Subtotal	<u>19,609</u>	<u>19,892</u>	0.0144	0.0026	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 77,198</b>	<b>\$ 79,030</b>	<b>0.0237</b>	<b>0.0166</b>	<b>Pass</b>	N/A	<b>Pass</b>	
<b>Total</b>	<b>\$ 110,483</b>	<b>\$ 112,722</b>	<b>0.0203</b>	<b>0.0203</b>	<b>Pass</b>	N/A	<b>Pass</b>	

<b><u>FLORIDA RETIREMENT SYSTEM</u></b>		<b>Elected County Officers (ECO) - - Future DROPs Retirement Rates</b>						
<b>(\$ 000)</b>		<b>Liability Test</b>						
<b><u>Active PVFB</u></b>	<b><u>M&amp;R</u></b>	<b><u>GRS</u></b>	<b><u>Liability Ratio</u></b>		<b><u>Individual</u></b>	<b><u>PVFB</u></b>	<b><u>Composite</u></b>	
			<b><u>Individual</u></b>	<b><u>Total</u></b>	<b><u>5%</u></b>	<b><u>0.5%</u></b>		
Withdrawal / Early Retirement	\$ 37,368	\$ 36,396	(0.0260)	(0.0015)	Pass	Pass	Pass	
Retirement	184,033	186,717	0.0146	0.0042	Pass	Pass	Pass	
Non-Duty Death	6,995	7,836	0.1202	0.0013	Fail	Pass	Pass	
Duty Death	1,504	1,477	(0.0180)	0.0000	Pass	Pass	Pass	
Non-Duty Disability	4,095	4,228	0.0325	0.0002	Pass	Pass	Pass	
Duty Disability	815	872	0.0699	0.0001	Fail	Pass	Pass	
Return of Contributions	<u>23</u>	<u>19</u>	(0.1739)	0.0000	Fail	Pass	Pass	
Subtotal	\$ 234,833	\$ 237,545	0.0115	0.0043	Pass	N/A	Pass	
Less PVF Contributions	<u>0</u>	<u>0</u>	0.0000	0.0000	Pass	Pass	Pass	
<b>Total Active PVFB</b>	<b>\$ 234,833</b>	<b>\$ 237,545</b>	<b>0.0115</b>	<b>0.0043</b>	<b>Pass</b>	N/A	<b>Pass</b>	
Count	935	935	0.0000	N/A	Pass	N/A	Pass	
Active PVF Salary:	\$ 357,935	\$ 363,013	0.0142	N/A	Pass	N/A	Pass	
<b><u>Inactive PVFB</u></b>								
Retirees	\$ 306,488	\$ 313,406	0.0226	0.0109	Pass	Fail	Pass	
Terminated Vesteds	23,239	23,417	0.0077	0.0003	Pass	Pass	Pass	
DROPs	<u>70,613</u>	<u>71,698</u>	0.0154	0.0017	Pass	Pass	Pass	
<b>Total Inactive</b>	<b>\$ 400,340</b>	<b>\$ 408,521</b>	<b>0.0204</b>	<b>0.0129</b>	<b>Pass</b>	N/A	<b>Pass</b>	
<b>Total</b>	<b>\$ 635,173</b>	<b>\$ 646,066</b>	<b>0.0171</b>	<b>0.0171</b>	<b>Pass</b>	N/A	<b>Pass</b>	

# Appendix B





# Response from the Department of Management Services

In accordance with the provisions of s. 11.51(5), *Florida Statutes*, a draft of our report was submitted to the Secretary of the Department of Management Services for her review and response.

The Secretary's written response is reprinted herein beginning on page 60.



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Department of Management Services  
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Governor Charlie Crist

Secretary Linda H. South

April 24, 2008

Mr. Gary R. VanLandingham, Director  
Office of Program Policy Analysis and  
Government Accountability  
Claude Pepper Building Room 312  
111 West Madison Street  
Tallahassee, FL 32399-1450

Dear Mr. VanLandingham:

Pursuant to Section 11.51(5), Florida Statutes, attached is the Department of Management Services' response to your preliminary and tentative audit report, **Florida Retirement System Pension Plan Fully Funded and Valuation Met Standard**. The attached response corresponds with the order of your preliminary and tentative audit findings and recommendations.

If further information is needed concerning our response, please contact Steve Rumph, Inspector General, at 488-5285.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. South', written in a cursive style.

Linda H. South  
Secretary

Attachment

cc: David Faulkenberry, Deputy Secretary  
Sarabeth Snuggs, Director of Retirement

We serve those who serve Florida.

Mr. Gary R. VanLandingham  
April 24, 2008  
Attachment Page 1

## Florida Department of Management Services

### Response to OPPAGA's Preliminary Findings and Recommendations

#### **Finding:**

The pension plan's 2007 valuation was conducted in accordance with standards, and its assumptions and methods are reasonable.

#### **Recommendation:**

Based on the review by Gabriel, Roeder, Smith & Company, we continue to make the following recommendations.

- *We recommend inclusion in the FRS actuarial report disclosures of the normal costs and actuarial gains and losses fully reflecting the DROP, as well as the disclosure of the present value of future benefits fully reflecting the DROP. Inclusion of these disclosures would provide valuable information to the Legislature.*
- *We recommend that the FRS actuarial report provide prior year results along with side-by-side current year results as appropriate. This information would provide a ready comparison both in terms of changes in values and percentage changes in the Florida Retirement System's membership, assets, and benefits.*
- *We recommend that in future valuations, the Department of Management Services' consulting actuary monitor the rate stabilization mechanism for consistency with Governmental Accounting Standards Board standards and report the results of its monitoring activities in the FRS actuarial report, as this reporting would provide valuable information to the Legislature.*

#### **Response:**

We are pleased with the conclusion from Gabriel, Roeder, Smith & Company that the 2007 actuarial valuation was made in accordance with relevant state laws, rules, and actuarial standards and that the assumptions and methods used in the 2007 valuation were reasonable.

Our responses to the recommendations are:

Mr. Gary R. VanLandingham  
April 24, 2008  
Attachment Page 2

- **Non-Concur:** The current funding of the Deferred Retirement Option Program (DROP) and the disclosure approach in the Florida Retirement System (FRS) actuarial valuation results from laws enacted by the Legislature and specific instructions from the FRS Actuarial Assumption Conference (Conference). The Conference consists of principals from the Governor's Office and staff designated by the Legislature. The Division of Retirement does not have a statutorily prescribed role in the Conference, but does typically attend to provide the Conference any requested support.

The Legislature commissioned and received, on March 23, 2007, a special actuarial study concerning alternative funding mechanisms for the DROP. No changes were requested for the 2007-08 fiscal year for the DROP funding and no changes have been proposed for the 2008 Legislative Session. Should the Conference recommend changes to the DROP funding method and Legislature agrees; or if the Conference recommends expanding the valuation report to provide comparative DROP funding statements until a more traditional DROP funding method is authorized, the Department's Actuary would certainly comply.

Expanding the valuation report to include this additional work would increase the annual cost of the valuation and would require funding by the Legislature. DMS and the DMS Contracted Actuary originally recommended, and continue to recommend, the adoption of a more traditional funding approach for DROP.

- **Non-Concur:** The Department believes that the FRS Actuarial Report as of July 1, 2007 includes appropriate year by year comparisons throughout the document. For example, on pages II-3 and II-7 a 2006 and 2007 comparison is presented. If additional data comparisons are needed, we ask that the specific data and tables be identified in order for the Department to be able to respond to a specific recommendation.
- **Non-Concur:** The Department and its Actuary believe we are complying with the Governmental Accounting Standards Board (GASB) reporting requirements. The Department's Actuary displays a separate set of calculations in Section V, Accounting Statements, which indicate such compliance with GASB requirements. Section V contains an explanation of the GASB requirements along with applicable tables. Specifically, the Actuary has developed Table V-7, which reflects the implications of the Rate Stabilization Mechanism.