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Program Review

Florida Retirement System Pension Plan Fully Funded and Valuation Met Standards

Report No. 04-13 February 2004

Office of Program Policy Analysis and Government Accountability

an office of the Florida Legislature

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The Florida Legislature

OFFICE OF PROGRAM POLICY ANALYSIS AND GOVERNMENT ACCOUNTABILITY

Gary R. VanLandingham, Interim Director

February 2004

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 Employee Retirement Benefits Act, Ch. 112, Part VII, *Florida Statutes*. We also assessed the plan's funding status.

The results of this review are presented to you in this report. To complete the review, we contracted with Mellon Human Resources & Investor Solutions to serve as our actuarial consultant. Becky Vickers conducted the review under the supervision of Tom Roth.

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

Sincerely,

Gary R. VanLandingham
Interim Director

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Review Summary

Florida Retirement System Pension Plan Fully Funded and Valuation Met Standards

The Florida Retirement System pension plan continues to be fully funded. The 2003 actuarial valuation determined that the plan's assets exceed its liabilities, with a surplus of $12.3 billion as of July 1, 2003. However, the 2003 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 three fiscal years (from 118% in Fiscal Year 1999-00 to 114% in Fiscal Year 2002-03).

Our actuarial consultant, Mellon Human Resources & Investor Solutions, concluded that the 2003 valuation was made in accordance with relevant state laws and rules, and actuarial standards. It further concluded that the assumptions and methods used in the 2003 valuation were generally reasonable.

However, our consultant also made several technical recommendations. A major recommendation is that the department's consulting actuary should include a more detailed analysis of the causes of gains and losses to the system's liabilities. This would enable an outside actuary to better assess the factors causing recent gains and losses (page 20). Also, although the plan's funding status is not currently a concern because the plan is fully funded, the plan's funding status should be closely monitored (page 30).

Mellon Human Resources & Investor Solutions, Inc.'s report is presented in its entirety in Appendix A, beginning on page 7.

The Secretary of the Department of Management Services provided a written response to our preliminary report. The Secretary described actions the department is taking to implement the actuary's recommendations. See Appendix B, page 38, for the response.

Program Review

Florida Retirement System Pension Plan Fully Funded and Valuation Met Standards

Scope

Section 112.658, *Florida Statutes*, directs the Office of Program Policy Analysis and Government Accountability (OPPAGA) to review the 2003 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. [1] 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 (ERISA) and as permitted under regulations prescribed by the U.S. Secretary of the Treasury. The act requires OPPAGA to use the same actuarial standards as the Department of Management Services uses to monitor local government pension plans.

Our review's objectives were to determine whether the Department of Management Services' consulting actuary made the 2003 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 Mellon Human Resources & Investor Solutions to serve as our actuarial consultant.

Background

Florida law requires the Department of Management Services to cause an actuarial valuation of the Florida Retirement System (FRS) pension plan to be made annually with the results reported to the Legislature by December 31 prior to the next legislative session. [2]

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[1] Sections 112.60 to 112.67, *F.S.*

[2] 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.

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 2001-02, school district employees comprised 48% of the plan's active members, state employees comprised 23%, county employees comprised 23%, city and special district employees comprised 3%, and community college employees comprised 3%. [3]

Over the past 22 years, the plan has experienced significant growth overall in the number of active members and annuitants (retirees or their beneficiaries receiving retirement payments). Between Fiscal Years 1980-81 through 2002-03, the number of active system members increased from 393,894 to 595,164 (51%). During this same period, the number of system annuitants increased from 59,533 to 208,399 (250%). Exhibit 1 shows the growth in active members and annuitants since 1992-93.

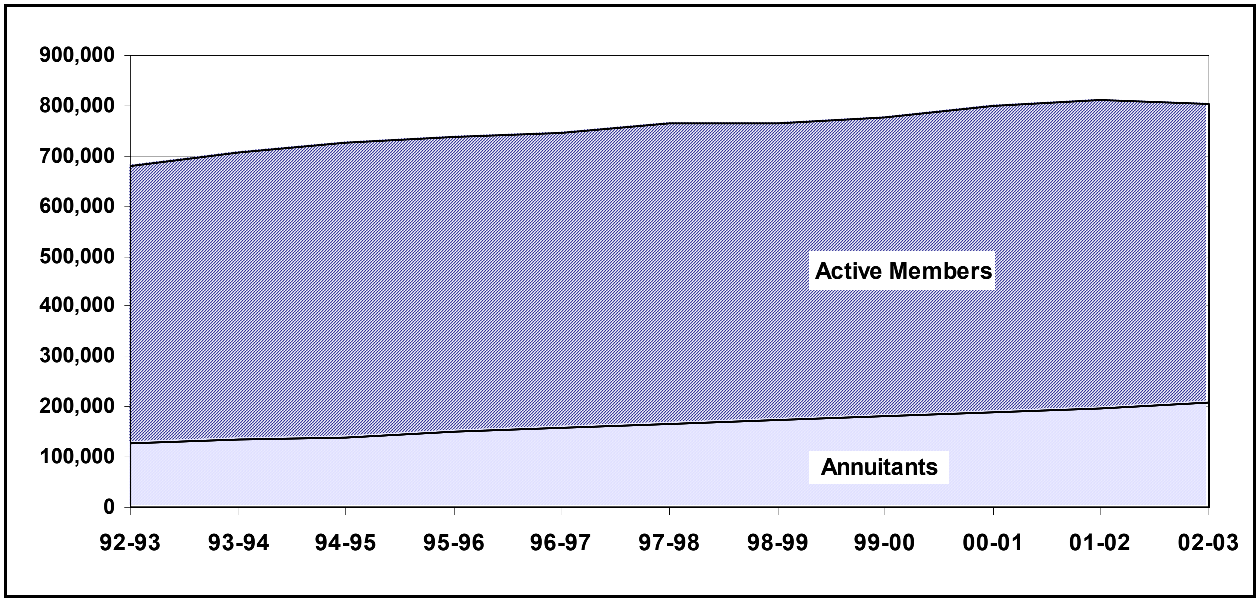
Despite significant overall growth in the long term, the number of active members has declined since Fiscal Year 2000-01. The number of active members was 612,340 in 2000-01, 611,178 in 2001-02, and 595,164 in 2002-03. [4] During the same time period, the number of annuitants grew from 188,512 to 208,399.

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. Most FRS members (96%) are in the pension plan.

[3] The Fiscal Year 2001-02 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.

[4] During Fiscal Year 2002-03, FRS members were required to choose between staying in the pension plan and joining the recently created investment plan. The 2003 valuation report shows that approximately 21,000 FRS participants (less than 4%) made the election to join the investment plan.

Exhibit 1
The Number of FRS Members and Annuitants Has Increased Since Fiscal Year 1992-93[1]



[1] 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 2003 actuarial valuation indicates that the FRS pension plan has 26,720 DROP members and 64,890 terminated vested members as of July 1, 2003.

Source: Division of Retirement documents and the Florida Retirement System Actuarial Valuation as of July 1, 2003.

The Department of Management Services' Division of Retirement administers the Florida Retirement System pension plan. Pension benefits and all Division of Retirement operating expenses are paid from revenues deposited in the Florida Retirement System Trust Fund. For Fiscal Year 2003-04, the Legislature provided the Division of Retirement spending authority of $26.8 million to operate the division. [5]

The State Board of Administration invests FRS pension plan assets. As of June 30, 2003, the market value of pension plan assets was $90.5 billion. During Fiscal Year 2002-03, the Florida Retirement System paid $3.9 billion in pension payments to retired, disabled, or beneficiary members.

The department contracted with Milliman USA to conduct the plan's 2003 actuarial valuation.

[5] The Division of Retirement's operating budget includes $10 million in general revenue to pay benefits for some small, closed retirement systems.

Findings

The pension plan's 2003 valuation was made in accordance with standards, and its assumptions and methods are reasonable

Our consulting actuary, Mellon Human Resources & Investor Solutions, concluded that the 2003 actuarial was made in accordance with relevant state laws and rules, and actuarial standards. It also concluded that the assumptions and methods used in the 2003 valuation were reasonable. Mellon Human Resources & Investor Solutions' report is presented in its entirety in Appendix A.

The pension plan continues to be fully funded in 2003

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.

The FRS pension plan continues to be fully funded, with assets that exceed its liabilities. The 2003 valuation determined that the actuarial value of the plan's assets exceeded its liabilities by $12.3 billion as of July 1, 2003. [6] As shown in Exhibit 2, the plan's ratio of assets to liabilities significantly increased from Fiscal Year 1982-83 to 2002-03 (50% to 114%). This improvement was due primarily to significantly higher than expected investment returns resulting from the exceptional performance of the stock market during the 1990s and member salary increases being lower than expected.

Although the pension plan is fully funded, its funding status has experienced a decline over the last three fiscal years. The plan's ratio of assets to liabilities declined from 118% in Fiscal Year 1999-00 to 114% in Fiscal Year 2002-03.

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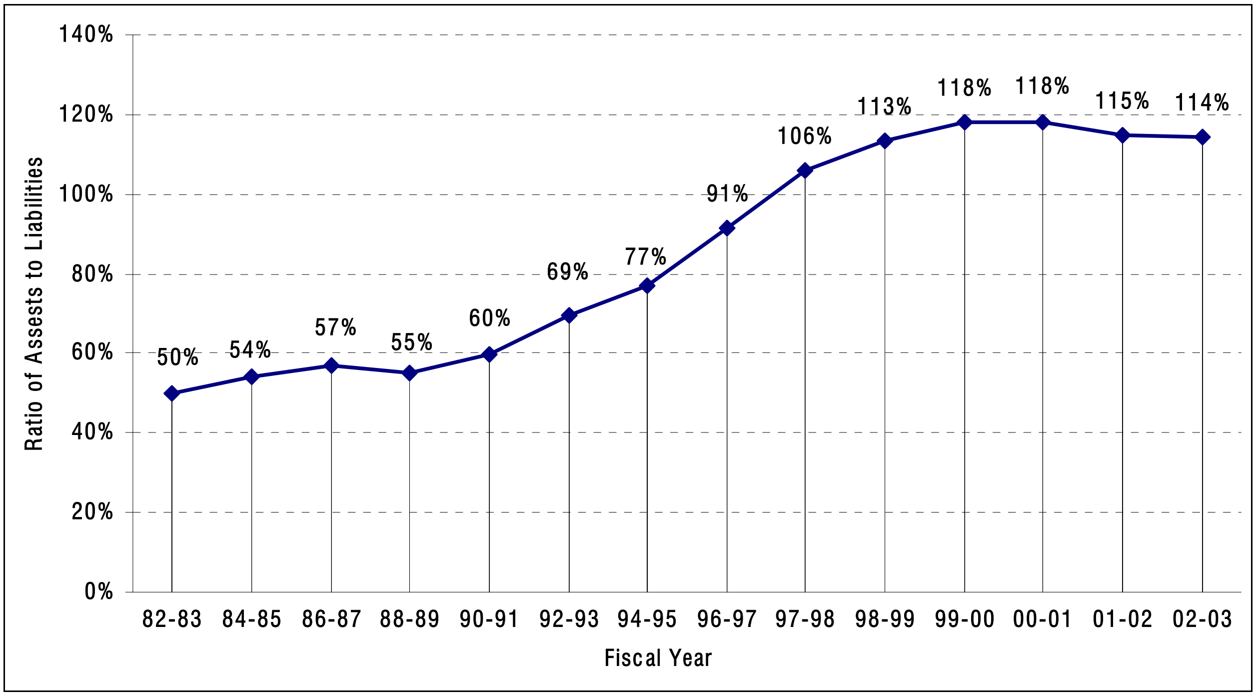
[6] The valuation initially calculated the surplus at $12.6 billion. However, the surplus was adjusted to $12.3 billion to account for the contingent liability due to FRS investment plan members' ability to exercise a second election to go back into the FRS pension plan. The FRS pension plan experienced an actuarial gain of approximately $300 million from members electing to transfer to the investment plan after it was created. However, if these members exercise their one-time option to go back into the pension plan, the members do not have to pay the plan the full cost of their actuarial liability. 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.

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



Source: Division of Retirement documents and the Florida Retirement System Actuarial Valuation as of July 1, 2003.

The downward trend in the plan's funding status is not a major concern at this time because the plan continues to be fully funded. However, our consulting actuary noted that the trend in the plan's funding status warrants close monitoring.

Recommendations

Based on the review by Mellon Human Resources & Investor Solutions, we make the recommendations listed below.

- We recommend that the department's consulting actuary include a more detailed analysis of the causes of gains and losses to the pension plan's liabilities in future valuation reports. This would enable an outside actuary to better assess the factors causing recent gains and losses.
- We recommend that the Legislature, the Department of Management Services, and the department's consulting actuary continue to closely monitor the FRS pension plan's funding status. The downward trend in the plan's funding status is not a major concern at this time because the plan continues to be fully funded.

Appendix A

A STUDY OF THE

2003 ACTUARIAL VALUATION

OF THE

FLORIDA RETIREMENT SYSTEM

Mellon

Human Resources & Investor Solutions

January 13, 2004

Ms. Becky Vickers
Chief Legislative Analyst
Office of Program Policy Analysis
and Government Accountability (OPPAGA)
Florida Legislature
111 West Madison Street, Suite 312
Tallahassee, FL 32399-1475

Dear Ms. Vickers:

We are pleased to present our "Study of the 2003 Actuarial Valuation of the Florida Retirement System". We have conducted this study in accordance with the terms of the contract between your office and our firm. Our review does not include any comments regarding the retiree health insurance subsidy. The review also does not include comments on the defined contribution plan, Public Employees Optional Retirement Plan (PEORP), which has an insufficient history on which to comment.

We look forward to discussing the study with you and your staff and are also available to discuss it with the legislature and other interested parties in the State of Florida.

Sincerely,

/s/	/s/
Edward A. Macdonald	Robert D. Gallman
Principal	Director

EAM/RDG:sh

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Appendix A

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Appendix A

SECTION I

INTRODUCTION AND SUMMARY

This section summarizes the scope of the study, the general approach taken to it and its major findings.

A. Scope of the Study

The Request for Proposal from the Office of Program Policy Analysis and Government Accountability of the Florida Legislature (OPPAGA) described the scope of this study as follows:

"The consulting actuary will examine and review the work and 2003 report of the Department of Management Services' actuaries to determine the following:

- Whether the Department of Management Services' actuaries complied with the requirements of the Florida Statutes, Department rules, and governmental accounting standards regarding disclosure of pension-related information in their actuarial review and valuation of the Florida Retirement System;

- Whether the Department's actuaries used generally accepted actuarial cost methods, bases for assumptions, and reporting standards;

- Whether the specific economic and demographic assumptions used were arrived at from a sufficient level of detail considered, and were reasonable in light of recent experience;

- Whether the Department's actuaries provided sufficient information as to the causes for gains, losses, and net change in the unfunded liability to allow evaluation of specific factors;

- Whether the Department's actuaries' report adequately provided necessary information that another actuary, unfamiliar with the situation, would find sufficient to appraise the findings and arrive at reasonably similar results; and

- Whether other aspects of the Department's actuaries' work and report were sufficient."

B. General Approach to the Study

The July 1, 2003 actuarial valuation report, together with the conversations and information we received in past years, provided the basis for the Study. We have also reviewed certain information regarding the State's Deferred Retirement Option Program (DROP), which was effective July 1, 1998. We have not included analyses of the effect of the retiree health insurance subsidy. We have also not commented on the Public Employee Optional Retirement Plan (PEORP), which has insufficient history on which to comment.

Section 112.63, Florida Statutes, requires the actuarial valuation report to contain the following:

(a) Adequacy of employer and employee contribution rates in meeting levels of employee benefits provided in the system and changes, if any, needed in such rates to achieve or preserve a level of funding deemed adequate to enable payment through the indefinite future of the benefit amounts prescribed by the system, which shall include a valuation of present assets, based on statement value, and prospective assets and liabilities of the system and the extent of unfunded accrued liabilities, if any.

(b) A plan to amortize any unfunded liability and a description of actions taken to reduce the unfunded liability.

(c) A description and explanation of actuarial assumptions.

(d) A schedule illustrating the amortization of unfunded liabilities, if any.

(e) A comparative review illustrating the actual salary increases granted and the rate of investment return realized over the 3-year period preceding the actuarial report with the assumptions used in both the preceding and current actuarial reports.

(f) A statement by the enrolled actuary that the report is complete and accurate and that in his or her opinion the techniques and assumptions used are reasonable and meet the requirements and intent of the Chapter.

The actuarial cost methods utilized for establishing the amount of the annual actuarial normal cost to support the promised benefits shall be only those methods approved in the Employee Retirement Income Security Act of 1974 and as permitted under regulations prescribed by the Secretary of the Treasury.

In addition, Section 121.031, Florida Statutes requires the following:

1. 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.

2. The study shall include a narrative explaining the changes in the covered group over the period between actuarial valuations and the impact of those changes on actuarial results.

3. When substantial changes in actuarial assumptions have been made, the study shall reflect the results of an actuarial assumption as of the current date based on the assumptions utilized in the prior actuarial report.

4. The study shall include an analysis of the changes in actuarial valuation results by the factors generating those changes. Such analysis shall reconcile the current actuarial valuation results with those results from the prior valuation.

5. The study shall include measures of funding status and funding progress designed to facilitate the assessment of trends over several actuarial valuations with respect to the overall solvency of the system. Such measures shall be adopted by the division and shall be used consistently in all actuarial valuations performed on the system.

6. 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 in the Chapter.

   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:

   a. 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.

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

c. 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 (i.e., 75%) of the excess above 10 percent may be used to offset total retirement costs. In addition, if the actuarial surplus exceeds 15 percent of actuarial liabilities, an additional one-fourth (i.e., 100%) of the excess above 15 percent may be used to offset total retirement system costs.

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

As outlined in the Table of Contents, the components of the study, together with the approach taken with each, are as follows:

1. <u>Actuarial Assumptions</u> - We reviewed the assumptions including modifications based on the most recent experience study for reasonableness and for their consistency with the experience of the System and with generally accepted actuarial practice.

2. Actuarial Methodology - We reviewed the actuarial cost method, the asset valuation method, the contribution rates, and the causes for changes, if any, in contribution rates. We also reviewed the approach taken to the disclosure required by Statements No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contributions Plans,* and 27, *Accounting for Pensions by State and Local Governmental Employers,* of the Governmental Accounting Standards Board (GASB 25 and GASB 27).

3. Actuarial Valuation Process - We reviewed the work of the Actuary as reflected in the valuation report, and considered the frequency and timing of actuarial valuations.

4. The Actuarial Valuation Report - We reviewed the valuation report for compliance with the published guidelines of the actuarial profession and with the relevant statutes and regulations of the State of Florida noted above, and, in accordance with 112.658, FS, and Chapter 60 T-1 (formerly Chapter 22D-1), Florida Administrative Code, regarding actuarial report standards for retirement systems.

C. Summary of Major Findings

Our major findings are as follows:

1. The recommended contribution rates were calculated in accordance with Chapter 112, Florida Statutes as modified by Chapter 121.

2. We believe that the actuarial assumptions should reasonably reflect the past and anticipated experience of the System. The overall annual salary increase assumption of 5.00% at age 20 continues to reasonably reflect anticipated experience of the System and to be consistent with the 8% net annual assumed interest rate.

3. The inflation component of 3.50% is consistent with future expectations.

4. The Actuary has provided some limited information as to the causes for gains, losses and net change in the unfunded liability. However, there is a lack of detailed analysis which would show, for example, the System's assumed number of member terminations by cause compared to actual terminations by cause. We are therefore unable to provide more than general commentary with regard to the causes for recent gains and losses, assuming such information is readily available.

5. The Actuary used generally accepted actuarial cost methods and reporting standards.

6. The amortization method is a reasonable method. The method approved by the Legislature to gradually use some of the surplus of the separate experience gain base to maintain a stable contribution rate seems reasonable.

7. It is our understanding that the FASB 35 section included in the report is not required but could be of some interest to certain parties reviewing accrued, rather than projected, benefits. The included GASB 25 information is accurate. We feel the membership data information from paragraph 32 of GASB 25 should be included.

SECTION II

ACTUARIAL ASSUMPTIONS

A. General

Appendix A of the Report on the Actuarial Valuation of the Florida Retirement System as of July 1, 2003 sets forth the various actuarial assumptions, methods and procedures used for the valuation. As Appendix A indicates, actuarial assumptions are required in order to estimate the future experience of the System's membership and the expected benefit flow and investment earnings (net of operating expenses) of the System. These assumptions are obviously important in determining the System's liabilities and the contribution rates to the System by the participating employers. They are also used to estimate the cost of proposed amendments to the System.

The decremental assumptions used for the current valuation (2003) were the same as those used for the preceding valuation (2002).

We have divided our discussion of the assumptions into two parts:

1. Demographic Assumptions - These assumptions reflect the flow of the membership through the System and include rates of mortality (both before and after retirement), disability, withdrawal and retirement.

2. Economic Assumptions - These assumptions reflect the economic forces operating on the System. These assumptions include expected rates of investment return, salary increases of individual members, payroll growth of the entire membership, and post-retirement benefit increases. Also included in the economic assumptions is the rate of future operating expense. Implicit in the economic assumptions is a rate of expected future inflation.

B. Demographic Assumptions

The demographic assumptions used are comprised of: (a) assumptions recommended by the previous System actuary based on experience prior to 1985, (b) revised retirement rates and withdrawal rates for regular and special risk members which were adopted for the 1989 valuation and continue to be used, and (c) the revised postretirement mortality rates adopted with the 1998 valuation and some revised withdrawal, disability and retirement assumptions (which should not yet be used in analyzing current experience).

We recommend that the retirement rates be monitored for appropriateness for the younger members. Many experts believe that members currently under the age of 40 will not retire in the same pattern as the current older generation of employees. Although it is our understanding that the initial number of elections has been minimal, the addition of the Public Employees Optional Retirement Program (PEORP) will have some impact on retirement expectations and the population eligible for FRS retirement. The Actuary could consider this potential trend when determining the appropriate retirement rates for the System. If his analysis dictates, he could use two different retirement rate assumptions, the current schedule for older employees and a reduced schedule for younger employees. In addition, the state of the economy could have a noticeable effect on termination rates. When employment opportunities are scarcer, employees tend to remain in service; when the economy is thriving, other opportunities are more likely to be pursued. The decision to retire is impacted in part by economic forces.

The post-retirement mortality assumption is also a reasonable expectation of future events and predicts a slightly longer life expectancy than the table recommended by the Department of Management Services for public plans in the State (1983 Group Annuity Table). The pre-retirement mortality assumption was reviewed by the Actuary in conjunction with the most recent experience study and continues to be used. While the Actuary has asserted to us that preretirement mortality is not a significant assumption, which is true, we feel the experience shows that a more modern (lower mortality) table maybe warranted. This assumption should be reviewed in conjunction with the next experience study to evaluate if it would make sense to utilize the same pre- and post-retirement mortality tables.

C. Economic Assumptions

The economic assumptions for the current valuation (2003) are the same as those used for the previous valuation (2002). A table of these assumptions is as follows:

Type	**Annual Rate**
Investment Return	8.00%*
Salary Increase	6.25%**
General Wage Inflation	5.00%
Inflation	3.50%
Post-retirement COLA	3.00%

* Net of assumed administrative expenses of .25% of assets.

** Average rate; individual salary growth is 5% plus an age-graded merit scale ranging from 5% at age 20 to 1.50% at age 40 to 0.25% at age 60.

Investment Return - We consider the 8.00% effective rate of investment return to be reasonable and appropriate. It is also the same as the median investment return from a survey of large public pension systems. The expected real rate of return (investment return in excess of inflation) of 4.50% is also realistic, but is higher than the median of 4.00% in the same survey.

Salary Increase - We agree that the combination of the 8.00% investment return and 6.25% overall salary increase assumption is reasonable and produces a reasonable spread between these rates of 1.75%.

We also agree with the use of the age weighted salary scale which, we believe, is more accurate than a flat rate throughout. The weighted scale has a much different effect on timing of liabilities from a flat scale. In practice, salary increases are higher for employees earlier in their career than for employees toward the end of their career. Typically, such a graded scale would have salary increases during the later years approximately equal to inflation and considerably higher salary increases during the early years. The assumptions reflect this trend, and the overall equivalent rate of 6.25% is reasonable.

General Wage Inflation – The 5.00% general wage increase assumption is at the high end, but still certainly reasonable.

SECTION III

ACTUARIAL METHODOLOGY

A. General

In this section, we discuss the actuarial cost method, the asset valuation method and the analysis of the proposed contribution rates. We also discuss the accounting information provided, including the actuarial disclosures required by GASB 25 and GASB 27. The information on GASB 25 on which we are relying is contained in correspondence from Mr. Chuck Janes and his associates dated December 8, 2003 and December 23, 2003. The Schedule of Employer Contributions required by GASB 25 is not a part of the Actuary's report, but its inclusion would be helpful, along with other historical tables used in GASB 25. We also addressed GASB 25 and 27 compliance issues under separate cover dated January 8, 2004.

B. Actuarial Cost Method

The actuarial cost method used to determine the required contribution to the System is the "entry age actuarial cost method", a description of which is contained in the Actuary's report. This is a standard actuarial cost method, and one used by the majority of state systems. It is a method approved by Florida law and is also the method used in previous years. Continuation of its use is reasonable and even desirable given its tendency to produce normal contributions expected to remain relatively level as a percentage of payroll.

Associated with the actuarial cost method is the period and method used to amortize the unfunded actuarial liability ("UAL") established by the basic cost method. Under current Florida law, any change in the UAL is to be amortized over a period not to exceed 30 plan years.

Effective July 1, 1998 and continuing through July 1, 2003, all bases have been assumed to be fully amortized (paid in full). The revised amortization/rate stabilization method will establish a new separate base only for plan changes, assumption changes and changes in funding method, and will use level dollar, rather than level percentage of pay, amortization over a period of 30 years. The surplus produced from the fully funded status may be used while it exists, to preserve a stable contribution rate.

C. Asset Valuation Method

The method of valuing a retirement system's assets plays an important role in determining the level of contributions to the system and the stability of the contribution rates over time. The larger the current assets are, the lower the future contribution rates can be set; the more volatile the asset values are over time, the more variable the contribution rates are likely to be.

By statute, the Florida Retirement System is obligated to value plan assets using a five-year averaging methodology as specified in U.S. Treasury (IRS) regulations or "a similar accepted approach designed to attenuate fluctuations in asset values."

The IRS regulation [§1.412(c)(2)], as modified by the federal Omnibus Budget Reconciliation Act of 1987, specified in Chapter 121, Florida Statutes, provides that the asset valuation method must reflect fair market value, that any period for averaging asset values must not exceed five years, and that the asset value used must fall within a corridor of 80% to 120% of fair market value.

The asset valuation method used for the 2003 actuarial valuation of the System is the same as that used for the previous valuation. The method is reasonable and appears to meet the statutory requirements. The inclusion of Table II-4 of the report to indicate the method used to allocate assets to the various membership classes within the System is helpful for the understanding of a reader of the report. In addition, although there is a note on Table II-5A indicating that cash flow is assumed mid-year, assuming the amount of cash flow is accessible, a schedule showing the derivation of the actual investment return on actuarial (and perhaps market) value of assets would be useful also.

D. Change in Contribution Rates

The normal cost contribution rates determined by this valuation are reasonable. However, the final contribution rate could change depending on which of the scenarios presented by the actuary is adopted by the State for use of the surplus, similar to the alternate use of surplus by the State for the fiscal year 2003-2004. We agree with the results and presentation of the options for contribution rates.

The report's Executive Summary reconciliations of the change in liability, change in unfunded liability and in contributions continue to be useful as an aid in understanding System dynamics. The Actuary has provided some limited information as to the causes for gains, losses and net change in the unfunded liability. However, there is a lack of detailed analysis which would show, for example, the System's assumed number of member terminations by cause compared to actual terminations by cause. We are therefore unable to provide more than general commentary with regard to the causes for recent gains and losses, assuming such information is readily available.

In addition, showing more detailed analysis of gains and losses and experience by source and the effect on the unfunded liability would be helpful. In particular, a table showing the associated dollar amounts and liabilities, similar to Tables IV-1 and IV-5, which show the percentage rates, would clarify how specific contribution offsets, such as the rate stabilization method in Section 121.031(3)(f), Florida Statutes, are applied. Table D-3 is helpful somewhat in that respect. The allocation of the surplus to the various groups in Table IV-5 seems reasonable, but the allocation used in 2000 on the basis of benefits earned during the year seems more equitable.

E. Accounting Information

As noted in Section V of the Actuary's report, the method of using surplus assets to stabilize the contribution rate may require disclosure under GASB 27.

GASB 25 requires the disclosure of certain pension actuarial information for the System. Section V of the Actuary's report outlines these disclosure requirements and provides the required information in detail. It would be helpful, however, to include more historical information and notes, much like the financial disclosures would show. The requirement in Chapter 121, Florida Statutes, for the report to facilitate the assessment of trends would be better achieved by the addition of this historical data. Also, the membership data breakdown, which summarizes the number of active, deferred and retired participants in GASB 25 disclosures, would be a helpful table to be shown.

The intended purpose of the GASB 25 disclosures is to provide a measure of funding status, to facilitate comparison among different retirement systems, and to track funding progress over time for a given system.

Table V-5 of the Actuary's report shows, for example, that the funded status of the Actuarial Accrued Liability (AAL) for the entire System is 114.18%, based on the actuarial value of assets. This funded ratio compares with 114.96% and 117.93% determined by the July 1, 2002 and 2001 valuations, respectively. The relative stability in funded status reflects primarily the growth in actuarial assets, while the market value has declined. However, the decline in the funded ratio should be monitored closely. Table V-5 also shows that the amount of surplus (AAL less actuarial value of assets) has decreased over the two-year period since 2001, from a surplus of $14.52 billion to a surplus of $12.66 billion.

SECTION IV

ACTUARIAL VALUATION PROCESS

A. Membership Data

Previous actuarial audits of the System stressed the need for continuing improvement in the quality of the membership data furnished the Actuary and have mentioned that the data problems have been diminishing. The Actuary has stated in the 2003 valuation report that the data was reasonably consistent and comparable with that used in prior valuations. In a few instances (e.g., Tables C-25 and C-26), population data reported and compensation are internally inconsistent. We believe that the data should agree or an explanation should clarify why the data do not agree. Also, we feel Table E-2 should indicate the number and reconciliation of terminated vested and PEORP members for use by readers of the report.

We concur with the objective of continuing to improve the quality of the data. Good data is important to ensure the validity of the valuation results and the credibility of experience studies.

In addition to incomplete or obviously erroneous data, there is also the possible problem of inaccurate data. This type of problem -- transposition of the last two digits of the date of birth, for example -- may not be obvious from the usual data checks performed as a part of the valuation. This type of error can be found only by comparing the valuation data with the original source. We recommend that the Auditor General's office sample and compare future valuation data with the original source records as it has in the past. As an aid to our review and that of others, information showing trends and data for average age, average service, and average salary for active members, and average benefit for retired members would be useful.

B. Work of the State Actuary

Until 1998, the State Actuary developed the present value of future benefits payable to retired members and prepared the experience investigation and gain/loss analysis for these members. Since 1998, the Actuary calculated these liabilities and performed the experience analysis. We have not reviewed these specific liabilities since all liabilities were calculated from the Actuary's system.

C. Work of the Actuary

The Actuary has overall responsibility for the actuarial work of the System and, among other things, calculation of the present value of benefits for the active membership, and since 1998, the retired, disabled and terminated vested participants.

From past discussions with the Actuary and a review of the liabilities and other calculations in the valuation report, we feel that the liabilities and other actuarial values resulting from the Actuary's calculations are reasonable, based on the assumptions employed. The analyses of changes from the prior year appear accurate and complete. However, given the absence of detailed reconciliations by group of changes in liabilities and contribution rates, we are unable to confirm the overall reliability of the actuarial valuation process being used by the Actuary.

D. Frequency and Timing of Valuation

Because of the dynamic nature of the System, which reflects the nature of the State, we concur with the State mandate for valuations to be performed at least annually. Not only do annual valuations keep the contribution rates current and enable better (more current) estimates of the cost of any proposed benefit changes, they also facilitate analysis and review of the System's experience. Furthermore, annual valuations are easier to prepare, reconcile and review and can usually be completed on a timelier basis. The use of annual valuations will be particularly important to monitor the effect of the defined contribution Public Employees Optional Retirement Program, after a sufficient history is established.

SECTION V

THE ACTUARIAL VALUATION REPORT

A. General

This section discusses the disclosure quality of the Actuary's report and its compliance with generally accepted actuarial disclosure principles, the disclosure requirements of Florida statutes and regulations and the disclosure requirements required by the Governmental Accounting Standards Board. The disclosure guidelines of the Actuarial Standards Board have been used as the standard of generally accepted actuarial disclosure principles.

B. Guidelines of the Actuarial Standards Board

The Actuarial Standards Board has adopted and published guidelines for Pension Actuarial Communications as a part of its Actuarial Standards of Practice No. 4, *Measuring Pension Obligations*; No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations;* and No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations*. We believe that the Actuary's report complies with these guidelines.

C. Legal Requirements of the State of Florida

The disclosure requirements governing actuarial valuation reports of the Florida State Retirement System are contained in Section 112.63, Florida Statutes, as implemented by Chapter 60T-1 (formerly Chapter 22D-1.03), Florida Administrative Code, and in Section 121.031, Florida Statutes.

In general, we believe the 2003 actuarial report complies with the requirements of Section 60T-1, FAC. However, we would note that if it is available, Appendix E should show information on asset returns for three years rather than two, in accordance with Section 112.63, Florida Statutes, similar to the three-year salary increase history shown.

Future reports may need greater detail on the DROP and PEORP if trends emerge. However, the State's GASB 25 disclosure seems consistent with the report's DROP information. The analysis for the DROP group separately, with the note regarding future allocation to the respective retired group as status changes occur following the DROP period, is helpful, but more detail about the derivation of the contribution rate on behalf of DROP members, even if a historical note only, would be appropriate. Also, we do not think that assets for the DROP portion should be allocated as negative even if the cash flow coupled with the prior year's allocation would produce "negative" assets. We would propose the DROP assets and liability be identical.

D. Disclosure Requirements of the Governmental Accounting Standards Board

The information on GASB 25 on which we are relying is contained in correspondence from Mr. Chuck Janes' office dated December 8, 2003 and December 23, 2003. Information regarding the Schedule of Employer Contributions is not contained in the Actuary's report but would be a helpful addition. Specific review of GASB 25 and 27 information was previously furnished January 8, 2004.

Some information under GASB 27 has been included in this year's report by the Actuary. As previously noted, the method of using surplus assets to stabilize the contribution may require a footnote or disclosure under GASB 27.

E. Other Report Format

Table II-3 on page II-4 has incorrect formula references; Line 6 should be [4 + 20% (5-4)], Line 7 should be [120% (5)], Line 8 should be [80% (5)], Line 9 should be lesser of (6) and (7), but not less than (8).

Additionally, the description of steps to determine the valuation of assets on page A-2 does not match the actual steps taken in development of the assets on Table II-3, on page II-4. However, the result is the same.

We think inclusion of the Solvency Test as recommended by the Government Finance Officers Association (GFOA) standards is useful. The 2003 actuarial report appears to be well organized and generally accurate, and except as previously noted, seems complete. In a few instances, member data and payroll amounts are not consistent from table to table. We believe the figures should be consistent (e.g., Tables C-25 and C-26). We would like to see more information comparing results and data to prior years, particularly average age, active member average service and average pay or average benefit information by group. We feel further details on reconciliation and development of unfunded liability amounts would be helpful, including liabilities by source of decrement.

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 39

FLORIDA DEPARTMENT OF
MANAGEMENT SERVICES

JEB BUSH
Governor

WILLIAM S. SIMON
Secretary

February 4, 2004

Gary VanLandingham, Interim Director
Office of Program Policy Analysis
And Government Accountability
Claude Pepper Building, Room 312
111 West Madison Street
Tallahassee, Florida 32199-1475

Dear Mr. VanLandingham:

Pursuant to Section 11.51(5), Florida Statutes, this is our response to the recommendations included in your report dated January 21, 2004; Florida Retirement System Pension Plan Fully Funded and Valuation Met Standards. Our response corresponds with the order of your conclusions and recommendations.

Finding: ***The pension plan's 2003 valuation was made in accordance with standards, and its assumptions and methods are reasonable.***

Recommendations:

Mellon Human Resources & Investor Solutions, made the following recommendations:

- The department's consulting actuary include a more detailed analysis of the causes of gains and losses to the pension plan's liability in future valuation reports. This would enable an outside actuary to better assess the factors causing recent gains and losses.
- The Legislature, the Department of Management Services, and the department's consulting actuary continue to closely monitor the FRS pension plan's funding status.

Office of the Secretary • 4050 Esplanade Way, Tallahassee, Florida 32399-0950
Telephone: 850-488-2786 • Fax: 850-922-6149 • Email: Executive_Office@dms.state.fl.us

Department Response:

We are pleased with the conclusion from Mellon Human Resources & Investor Solutions, that the 2003 actuarial valuation was made in accordance with relevant state laws, rules, and actuarial standards and that the assumptions and methods used in the 2003 valuation were reasonable.

Our responses to the recommendations are:

- The Department's actuaries are about to commence an experience study covering the July 1, 1998 through June 30, 2003 time frame. This study will analyze the experience of the pension plan over the past five years in detail. The study will be performed during calendar year 2004. Therefore, commencing with the 2005 valuation, the Department's actuary will provide a more detailed analysis of the causes of gains and losses to the plan's liabilities.

- The Department and its consulting actuary will continue to closely monitor the pension plan's funding status, as is the current practice.

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

Sincerely,

/s/
William S. Simon
Secretary

WS/kc

cc: Terry Shofstall, Staff Director
Joint Legislative Auditing Committee

Robert Hosay, Deputy Secretary
Department of Management Services

Sarabeth Snuggs, Director
Division of Retirement