

How...

ASRS Employees Deliver Service With PRIDE!

PROFESSIONALISM

We promote, strive for and expect individuals, teams, and divisions to possess professional qualities and skills to lead the organization.

- Displays a friendly, respectful and courteous demeanor even when confronted by adversity
- Has proactive and responsive approach to internal and external customer needs
- Possesses good communication and active listening skills
- Is a trusted contributor (manager, leader, SME, analyst, teammate)
- Takes personal accountability • Has subject matter expertise
- Has critical thinking skills • Has an honest, fair, non-judgmental mind-set
- Is adaptable to beneficial change • Adheres to the ASRS Code of Conduct

RESULTS

We treasure the achievements of individuals, teams, divisions and the agency that energize the organization.

- Meets goals and objectives
- Completes projects
- Produces quality work products
- Satisfies customers
- Attains individual accomplishments
- Manages risks successfully

IMPROVEMENT

We appreciate individuals, teams or divisions who drive the agency forward with new, innovative ideas and solutions.

- Promotes new ideas
- Enhances outcomes and performance
- Solves problems
- Enhances morale
- Improves relationships
- Increases efficiency, effectiveness or reduces costs

DIVERSITY

We recognize that utilizing different talents, strengths and points of view, strengthens the agency and helps propel outcomes greater than the sum of individual contributors.

- Encourages an attitude of openness and a free flow of ideas and opinions
- Treats others with dignity and respect
- Works effectively to accomplish goals with teams comprised of dissimilar individuals
- Recognizes and promotes skills in others attained on and off the job

EXCELLENCE

We celebrate individuals, teams and divisions who exceed expectations and deliver service with a PRIDE that permeates the organization.

- Surpasses member, stakeholder and associate expectations
- Demonstrates a willingness to go the extra mile to engender a positive public image
- Embraces change in a manner that inspires others
- Accepts responsibility and challenges with enthusiasm
- Takes a personal interest in promoting teamwork through effective use of communication (verbal, non-verbal, written and technological techniques)
- Creates a motivated, healthy and productive work environment that celebrates and rewards the accomplishments of others



**ARIZONA STATE
RETIREMENT SYSTEM**



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

AGENDA

NOTICE OF COMBINED PUBLIC MEETING AND EXECUTIVE SESSION OF THE ARIZONA STATE RETIREMENT SYSTEM BOARD

3300 North Central Avenue, 10th Floor Board Room
Phoenix, AZ 85012

September 25, 2015
8:30 a.m.

Pursuant to A.R.S. § 38-431.02 (F), notice is hereby given to the Trustees of the Arizona State Retirement System (ASRS) Board and to the general public that the ASRS Board will hold a meeting open to the public on Friday, September 25, 2015, beginning at 8:30 a.m., in the 10th Floor Board Room of the ASRS offices at 3300 N. Central Avenue, Phoenix, Arizona 85012. Trustees of the Board may attend either in person or by telephone conference call.

The Chair may take public comment during any agenda item. If any member of the public wishes to speak to a particular agenda item, they should complete a "Request To Speak" form indicating the item and provide it to the Board Administrator.

This meeting will be teleconferenced to the ASRS Tucson office at 7660 East Broadway Boulevard, Suite 108, Tucson, Arizona 85710.

The Agenda for the meeting is as follows:

1. Call to Order; Roll Call; Opening RemarksMr. Kevin McCarthy
Board Chair
2. Presentation Regarding PRIDE Award for Improvement (*estimated time 5 minutes*).....
.....Mr. Paul Matson
Director
.....Mr. Anthony Guarino
Deputy Director and Chief Operations Officer
3. Presentation Regarding Government Finance Officers Association (GFOA) Financial Reporting Awards
A. Comprehensive Annual Financial Report (CAFR) for Fiscal Year (FY) 2014
B. Popular Annual Financial Report (PAFR) for FY 2014
(*estimated time 5 minutes*)Mr. Paul Matson
.....Mr. Anthony Guarino
.....Ms. Nancy Bennett
Chief Financial Officer
4. Approval of the Minutes of the August 28, 2015 Public Meeting and Executive Session of the ASRS Board (*estimated time 1 minute*).....Mr. Kevin McCarthy

5. Presentation, Discussion and Appropriate Action Regarding the ASRS' Performance in the CEM Pension Benefit Administration Benchmarking Survey for the Period Ending June 30, 2014 (*estimated time 45 minutes*)..... Mr. Anthony Guarino
..... Mr. Brian Crockett
Senior Management Analyst
..... Ms. Jan Hartford
Director, CEM Benchmarking Inc.
6. Presentation, Discussion, and Appropriate Action Regarding the ASRS Real Estate Strategic Plan Revisions (*estimated time 20 minutes*)..... Mr. Paul Matson
..... Mr. Gary Dokes
Chief Investment Officer
..... Mr. Karl Polen
Head of Private Markets Investing

Regarding the following agenda item, notice is hereby given to Trustees of the ASRS Board and the general public that the ASRS Board may vote to go into executive session pursuant to A.R.S. § 38-431.03(A)(3) for discussion or consultation for legal advice with the attorney(s) of the public body, which will not be open to the public.

7. Presentation, Discussion, and Appropriate Action Regarding ASRS Proposed Legislation for the 2016 Legislative Session (*estimated time 30 minutes*)..... Mr. Patrick Klein
Assistant Director, External Affairs Division
..... Mr. Nick Ponder
Government Relations Officer

Regarding the following agenda item, notice is hereby given to Trustees of the ASRS Board and the general public that the ASRS Board may vote to go into executive session pursuant to A.R.S. § 38-431.03(A)(3) for discussion or consultation for legal advice with the attorney(s) of the public body, which will not be open to the public.

8. Approval, Modification, or Rejection of Recommended Administrative Law Judge's Decision Regarding Mr. Robert Merritt's Appeal to Transfer Corrections Officer Retirement Plan Service Credit to the ASRS Based on a May 2008 Cost Calculation (*estimated time 20 minutes*)..... Ms. Jothi Beljan
Assistant Attorney General
..... Mr. Chris Munns
Attorney General, Solicitor General Section
9. Presentation, Discussion, and Appropriate Action Regarding the Director's Report as well as Current Events (*estimated time 5 minutes*) Mr. Paul Matson
..... Mr. Anthony Guarino

- A. 2015 Investments Report
- B. 2015 Operations Report
- C. 2015 Budget and Staffing Reports
- D. 2015 Cash Flow Statement
- E. 2015 Appeals Report
- F. 2015 Employers Reporting

10. Presentation and Discussion Regarding Informational Updates from Prior and Upcoming Committee Meetings (*estimated time 15 minutes*)
 - a. Operations and Audit Committee (OAC)Mr. Jeff Tyne, Chair
.....Mr. Anthony Guarino
The next OAC Meeting will be held on November 10, 2015
 - b. External Affairs Committee (EAC).....Dr. Richard Jacob, Chair
.....Mr. Patrick Klein
The next EAC Meeting will be held on October 9, 2015
 - c. Investment Committee (IC) Mr. Tom Connelly, Chair
.....Mr. Gary Dokes
The next IC Meeting will be held on October 26, 2015
 - d. Ad Hoc Compensation CommitteeMr. Tom Manos, Chair
11. Board Requests for Agenda Items (*estimated time 1 minute*)
.....Mr. Kevin McCarthy
12. Call to the Public.....Mr. Kevin McCarthy

Those wishing to address the ASRS Board are required to complete a Request to Speak form before the meeting indicating their desire to speak. Request to Speak forms are available at the sign-in desk and should be given to the Board Administrator. Trustees of the Board are prohibited by A.R.S. § 38-431.01(H) from discussing or taking legal action on matters raised during an open call to the public unless the matters are properly noticed for discussion and legal action. As a result of public comment, the Board may direct staff to study and/or reschedule the matter for discussion and decision at a later date.

13. The next regular public ASRS Board meeting is scheduled for Friday, October 30, 2015, at 8:30 a.m., at 3300 N. Central Avenue, in the 10th Floor Board room, Phoenix, Arizona.

The balance of the meeting and executive session(s) will take place in the 14th floor conference room.

Regarding the following agenda item, notice is hereby given to Trustees of the ASRS Board and the general public that the ASRS Board may vote to go into executive session pursuant to A.R.S. § 38-431.03(A)(3) for discussion or consultation for legal advice with the attorney(s) of the public body, which will not be open to the public.

14. Presentation, Discussion, and Appropriate Action Regarding ASRS Actuarial Services (*estimated time 20 minutes*).....Mr. Paul Matson
.....Ms. Jothi Beljan

Regarding the following agenda item, pursuant to A.R.S. § 38-431.03(A)(1), notice is hereby given to Trustees of the ASRS Board and the general public that the ASRS Board shall vote to go into executive session, which will not be open to the public, for the purpose of the Director's annual review and discussion of the Director's Employment Contract.

15. Presentation, Discussion, and Appropriate Action Regarding the review of the Director and Employment Contract for the Director (*estimated time 15 minutes*).....Mr. Kevin McCarthy

16. Adjournment of the ASRS Board.

A copy of the agenda background material provided to Board Trustees (with the exception of material relating to possible executive sessions) is available for public inspection at the ASRS offices located at 3300 North Central Avenue, 14th Floor, Phoenix, Arizona and 7660 East Broadway Boulevard, Suite 108, Tucson, Arizona. The agenda is subject to revision up to 24 hours prior to meeting. These materials are also available on the ASRS website (<https://www.azasrs.gov/web/BoardCommittees.do>) approximately 48 hours prior to the meeting.

Persons(s) with disabilities may request a reasonable accommodation such as a sign language interpreter or alternate formats of this document by contacting Tracy Darmer, ADA Coordinator at (602) 240-5378 in Phoenix, at (520) 239-3100, ext. 5378 in Tucson, or 1-800-621-3778, ext. 5378 outside metro Phoenix or Tucson. Requests should be made as early as possible to allow time to arrange the accommodations.

Dated September 18, 2015

ARIZONA STATE RETIREMENT SYSTEM

Melanie A. Alexander
Board Administrator

Paul Matson
Director



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

MEMORANDUM

TO: Mr. Kevin McCarthy, Chair, Arizona State Retirement System (ASRS) Board
FROM: Mr. Paul Matson, Director
DATE: August 21, 2015
RE: **Agenda Item #2:** Presentation Regarding the PRIDE Improvement Award

The ASRS employee recognition program recognizes employees who exemplify various PRIDE characteristics (Professionalism, Results, Improvement, Diversity, Excellence) throughout the year. The third award for 2015 is the PRIDE Improvement award.

The nominees were nominated by their peers because they exemplify the following PRIDE qualities of improvement:

We appreciate individuals, teams or divisions who drive the agency forward with new and innovative ideas and solutions:

- | | |
|--|---|
| <input type="checkbox"/> Promote new ideas | <input type="checkbox"/> Improve relationships |
| <input type="checkbox"/> Solve problems | <input type="checkbox"/> Enhance morale |
| <input type="checkbox"/> Enhance outcomes or performance | <input type="checkbox"/> Increase efficiency, effectiveness or reduce costs |

The nominees for the 2015 PRIDE Improvement Award include:

- MAC Action Committee: *Judy Simpson, Randi Gray, Marcus Jones, Katie Daigneault, Kathy Palmer, Jan Cameli, Lorra Mizner*
- Rama Tripuraneni
- John Doran
- TSD Project Management Team: *Teresa Donohue, Brandon Heathcotte, Trent Kendall, Meskel Assefa, Sandy Wang, Megha Choudhari, Bhargavi Ravinuthala*
- Marcia Kumamoto & Mark Muraoka

Chosen from the nominees as winner of the 2015 ASRS PRIDE Improvement award is Rama Tripuraneni. We invite the Board to join ASRS staff in recognizing Rama as the award recipient of this year's award.

Nominees for the 2015 PRIDE Improvement Award

The Improvement Award is the third of our 2015 bimonthly awards. The following employees were nominated by staff who feel they exemplify the Improvement qualities listed below:

Improvement

We appreciate individuals, teams or divisions who drive the agency forward with new and innovative ideas and solutions:

- Promote new ideas
- Solve problems
- Enhance outcomes or performance
- Improve relationships
- Enhance morale
- Increase efficiency, effectiveness or reduce costs

MAC Action Committee: Judy Simpson, Randi Gray, Marcus Jones, Katie Daigneault, Kathy Palmer, Jan Cameli, Lorra Mizner

They enhance outcomes and performance, improve relationships and enhance morale.

The Member Advisory Center implemented the MAC Action Committee some time ago. Judy was assigned as the leading supervisor and with her help the group has organized many events that are not only fun but also promote teamwork and morale. The committee is in charge of organizing our potlucks and social events, and I believe it is because of them that we have seen our turnover rates decrease drastically. Judy works tirelessly to bring smiles to our team's faces and frequently goes out of her way to make sure everyone is included and having a good time. The MAC Benefit Advisors deal with a lot from the members calling in and sometimes less than optimum responses to their internal inquiries, but they never forget the importance of WORLD CLASS CUSTOMER SERVICE and bring their smiles in with them each and every day, with the help of the MAC Action Committee.

TSD Project Management Team: Teresa Donohue, Brandon Heathcotte, Trent Kendall, Meskel Assefa, Sandy Wang, Megha Choudhari, Bhargavi Ravinuthala.

They are all accomplished Project Managers who excel at their jobs. They are creative thinkers who offer innovative solutions. In particular, they promote new ideas, solve problems, enhance outcomes and/or performance and increase efficiency, effectiveness and/or reduce costs.

Here is a sampling of some recent achievements:

Participants Demographics was modernized in POL. Users can view and update multiple data elements in one screen. Participant Demographic access roles and application security were standardized. Participant Demographic user interfaces were standardized. The application provided data integrity by cleaning up data or implementing validation rules.

Employer Demographics was modernized in POL. Many new features were added including an employer search capability, an employer magnet and an employer summary page. Employer notes was developed and a contact screen showing external PWEB users and

contacts as well as internal ASRS contacts was integrated into the application. The business has the ability to add a new employer and to add a new reporting unit. There is an automatic assignment of employer # and reporting unit # as well as additional employer reports, reporting unit history and audit details for employer information changes. Screens and reports secured by active directory roles. Employers can update their addresses on PWEB. This application is a major improvement over PERIS and provides many benefits to both internal business users and employers.

The Secure Public Website was upgraded. Information has been added on retirement elections, health insurance and dental insurance. Retirees have the ability to print a pension verification letter and a third party authorization letter. For certain retiree types, the retiree can add or change beneficiaries. Retirees can view payment information per account type and also modify tax and payment information by account type.

Membership Accounting was modernized in POL. An image and workflow enabled application was developed to manage member maintenance requests for service, salary and account balance. This reduces several manual steps and should increase productivity for the business. An image and workflow enabled application was developed to manage merge SSN requests for all member types and beneficiaries. This will eliminate many data change requests which were previously sent to TSD for correction.

Service Audit was modernized in POL. Reengineering and improvements to the Service Audit forms and reports for business users should increase productivity by eliminating unnecessary steps and resolving some current application problems. New workflow steps/statuses and links added to improve work management, training, and reporting. Increased visibility to users outside Service Audit through the display of audit status on Member Summary and audit related event history rows with status of Service Audit requests. This project should reduce the number of Member Inquiry issues related to Service Audit.

A comprehensive Project Investment Justification (PIJ) for Benefit Disbursements was developed and presented to ADOA ASET. Representatives at ASET ADOA complimented the thoroughness of the document. Paul Matson reviewed the PIJ and commented 'I am very impressed with the following attributes of the PIJ: 1. Clarity, 2. Detail, 3. Logic and 4. Writing skills.'

Pension Payroll is the single most important activity within the ASRS; approximately 100,000 expect to receive a monthly pension benefit on or before the first day of each month. This year the new retiree and pension payrolls have consistently been completed a day ahead of time. Timely completion of issues and attention to payroll details have contributed greatly to this success.

The Project Managers are assisting with numerous System Upgrades projects such as the Call Center upgrade, the Filenet/Kofax upgrade, the Fax Server upgrade, the Cognos to JasperSoft Report conversion and the Oracle Database upgrade. Security system upgrades include the Palo Alto next generation firewall and Oracle Audit Vault.

John Doran

John's contributions meet the criteria for both RESULTS and IMPROVEMENT.

Once again, John took it upon himself to put his Excel macro-building knowledge and skills to work for the benefit of increasing productivity and streamlining the processes for the

various reporting needs of the Investment Management Division. The latest example of this is the “Super Macro” he built for the cash reports that are used by the IMD team every morning. Instead of having to gather the reports and data from three different sources, all we have to do is press the infamous “Press Me” button and ta-dah! the Super Macro grabs the multiple reports and packages them into one concise, clean email ready to be edited as needed.

The implementation of this new process shows RESULTS and IMPROVEMENT, as we can actually quantify the time we can save running the Super Macro. John’s knowledge and eagerness to find new ways to improve the processes are invaluable to our division.

For that, John deserves recognition and a huge thank you for making our jobs easier!

Rama Tripuraneni

Rama solves problems, increases efficiency, and enhances outcomes and performance. In the two years I’ve been with the ASRS I have seen Rama assist with tasks from other groups that are outside of his role as a DBA. He has fixed code and come up with solutions in less time than was expected for the correction and the test. There are several Oracle Forms where he found a solution and fixed the Oracle Forms in a matter of hours.

Just last week one of the Project Managers came to Rama and asked if he could figure out a method to automate the Oracle Modernization project to convert Congo’s Code into Jaspersoft Code. Rama was asked to assist because he is a very resourceful person and thinks outside of the box. Rama likes a challenge and has helped with difficult problems in TSD numerous times in the past, such as failures in Pension Processing as well as setting up the control dates for the next several years. This included entering dates and calculating the date so there will not be failures in the Pension Processing. He also modified the Code so the Pension process would be more automated which decreases the likelihood of human error.

Marcia Kumamoto & Mark Muraoka

Marcia Kumamoto and Mark Muraoka have been assisting with employers with a new contribution file format. The enhanced format is more detailed including four (4) employee types (9, 10, 11, and 12-month employees) and nine different pay types and hours worked by employees. This enhanced information will help employers, members and the ASRS. Credited service will be more accurate, membership issues will be identified sooner and the new retiree process will eventually be more efficient. For the new file to be implemented, employers have had to change or upgrade their payroll programs and software, which isn’t always simple and can be very time consuming. Marcia and Mark have successfully worked with both our employers and often the payroll vendors answering questions about their unique programs and how to make this transition. They have done this by creating strong relationships and partnerships and creating a shared purpose and understanding. As of July 1, 2015, 85% of the ASRS Employer Reporting Units have been set up with the file format. Thank you for all of your hard work!



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Paul Matson
Director

MEMORANDUM

TO: Mr. Kevin McCarthy, Chair, Arizona State Retirement System (ASRS) Board

FROM: Mr. Paul Matson, Director
Mr. Anthony Guarino, Deputy Director and Chief Operations Officer

DATE: August 21, 2015

RE: **Agenda Item #3:** Presentation Regarding Government Finance Officers Association (GFOA) Financial Reporting Awards

Purpose

To present to the ASRS the GFOA's Financial Reporting Awards.

Recommendation

Informational only; no action required.

Background

It is our pleasure to report to you that the ASRS received the GFOA Certificate of Achievement for Excellence in Financial Reporting for its June 30, 2014, Comprehensive Annual Financial Report (CAFR). This is the twenty-sixth consecutive year the ASRS has received this prestigious award. A Certificate of Achievement is presented by the GFOA to those government units whose annual financial reports are judged to adhere to program standards and represents the highest award in government financial reporting.

It takes many hours of hard work by the ASRS to produce the CAFR each year. Staff who had a substantial part in the ASRS receiving the CAFR award were Nancy Bennett, Liz Rozzell, Erin Higbee, John Maczko, Tonia Nemecek, Debbie Motta, Rebecca Fox, Kristin Berry, Lupita Breland, Kerry White and Michael Copeland.

The CAFR is intended to provide reliable information for decision making, to insure compliance with legal requirements, and is a means of measuring the responsible stewardship of the assets of the ASRS. For those reasons, the ASRS continually strives to improve upon the content and readability of the financial information presented in its CAFR.

In addition, I am pleased to report the ASRS also received the GFOA Award for Outstanding Achievement for the 2014 Popular Annual Financial Report (PAFR). Staff who had a significant part in the ASRS receiving the PAFR award were Nancy Bennett, Liz Rozzell, Erin Higbee, John Maczko and Rebecca Fox.

The GFOA established the Popular Annual Financial Reporting Awards Program in 1991 to encourage and assist state and local governments to extract information from their CAFR to produce high quality PAFRs specifically designed to be readily accessible and easily understandable to the general public and other interested parties without a background in public finance and then to recognize individual governments that are successful in achieving that goal.

Finally, I would like to thank the Board for its support and leadership in planning and conducting the financial affairs of the ASRS in a responsible and progressive manner. It is this support that enables us to publish such a high quality CAFR and PAFR.



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

Arizona State Retirement System

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2014

Executive Director/CEO



Government Finance Officers Association

Award for
Outstanding
Achievement in
Popular Annual
Financial Reporting

Presented to

Arizona State Retirement System

For its Annual
Financial Report
for the Fiscal Year Ended

June 30, 2014

Executive Director/CEO



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*Paul Matson
Director*

MINUTES PUBLIC MEETING ARIZONA STATE RETIREMENT SYSTEM BOARD

Friday, August 28, 2015
8:30 A.M., MST

The Arizona State Retirement System (ASRS) Board met in the 10th Floor Board Room, 3300 N. Central Avenue, Phoenix, Arizona. Mr. Kevin McCarthy, Chair of the ASRS Board, called the meeting to order at 8:31 A.M., Arizona Time.

The meeting was teleconferenced to the ASRS office at 7660 E. Broadway, Tucson, Arizona 85710.

1. Call to Order; Roll Call; Opening Remarks

Present: Mr. Kevin McCarthy, Chair
Mr. Jeff Tyne
Mr. Tom Connelly
Professor Dennis Hoffman (via teleconference)
Mr. Tom Manos
Mr. Clark Partridge

Absent: Dr. Richard Jacob

Two vacant positions.

A quorum was present for the purpose of conducting business.

2. Presentation Regarding PRIDE Award for Improvement

The PRIDE Award for Improvement will be presented at the September 25, 2015 Board meeting.

3. Approval of the Minutes of the May 29, 2015 Public Meeting and Executive Sessions of the ASRS Board

Motion: Mr. Jeff Tyne moved to approve the Minutes of the May 29, 2015 Public Meeting and Executive Sessions of the ASRS Board. Mr. Tom Connelly seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved.

4. Approval, Modification, or Rejection of Recommended Administrative Law Judge's Decision Regarding Mr. David Lara's Appeal for Monies from Maria Cardenas' ASRS Refund Transaction

Mr. Chris Munns, Assistant Attorney General, Solicitor General Section, was present to provide legal advice to the Board, if requested.

Mr. Cody Huffaker, attorney for Mr. Lara, introduced himself to the Board and briefly summarized Mr. Lara's appeal and referred to his submission to the Board that outlined the specific amendments he is requesting on behalf of Mr. Lara. Mr. Huffaker stated that Mr. Lara is requesting the Board accept the Recommended Administrative Law Judge's Decision with a modification to the award amount. Mr. Lara believes he should be awarded \$42,652.00, which represents the total amount of funds that should have been properly rolled over into the Edward Jones IRA established by Maria Cardenas; less the \$12,000.00 that Mr. Lara received from his niece, Leticia Cardenas.

Ms. Jothi Beljan, Assistant Attorney General, presented her position regarding Mr. Lara's appeal to the Board. Ms. Beljan requested that the Board modify the Recommended Administrative Law Judge's Decision as follows:

1. Correct Conclusion of Law No. 5 to delete the sentence, "The ASRS did not make this change because it found ambiguities in Ms. Cardenas' instructions to close the account and pay out the proceeds." and insert the sentences based on the Hearing Transcript, page 33, lines 4-17, ASRS Exhibit H, and the statutory language of Arizona Revised Statutes 38-740, 38-760, 38-762 and 38-763, "At the written request of Maria Cardenas, the ASRS changed her ASRS beneficiary from Helen Lara to David Lara effective May 30, 2014. However, beneficiary designations are irrelevant when a member such as Maria Cardenas refunds her ASRS account under A.R.S. § 38-740. Only benefits under A.R.S. §§ 38-760, 38-762, and 38-763 are paid to beneficiaries designated by members."
2. Delete Conclusion of Law No. 6 because A.R.S. § 38-763 governs survivor benefits when a retired ASRS member dies. This statute is inapplicable to the appeal because Maria Cardenas was not an ASRS retired member. Maria Cardenas exercised her right to a return of contributions in A.R.S. § 38-740. A.R.S. § 38-740(D) states, "Withdrawal of contributions with interest constitutes a withdrawal from membership in ASRS and results in forfeiture of all other benefits under ASRS."
3. Delete the phrase "her choice for beneficiary and" in Conclusion of Law No. 8 because payment of refund monies under A.R.S. § 38-740 are not paid to a beneficiary designated by an ASRS member.
4. Delete the phrase "plus interest from July 8, 2014, pursuant to A.R.S. § 38-763(B)" in Conclusion of Law No. 10 because A.R.S. § 38-763(B) governs survivor benefits when a retired ASRS member dies not refunds.
5. Delete the phrase "as beneficiary" in the Recommended Order, page 16 because refund monies payable under A.R.S. § 38-740 are not paid to beneficiaries.
6. Delete the phrase "plus interest from July 8, 2014" in the Recommended Order, page 16 because the Judge's basis for awarding interest was A.R.S. § 38-763(B) and that statute does not apply to refund transactions.

Motion: Mr. Clark Partridge moved to go into Executive Session to seek legal advice. Mr. Tom Manos seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused and 2 vacancies, the motion was approved.

The Board convened to Executive Session at 9:16 a.m.

The Board reconvened to Public Session at 10:00 a.m.

Mr. Huffaker, Mr. Lara and Ms. Beljan responded to questions from the Board.

Motion: Mr. Tom Manos moved to modify the Administrative Law Judge's Decision as requested by the ASRS to include amendments #1-5 as stated above, but not #6. Mr. Clark Partridge seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved.

5. Approval, Modification, or Rejection of Recommended Administrative Law Judge's Decision Regarding Ms. Mehrzad Khorsandi's Appeal to Purchase August 1998 through May 1999 Employment as Contributions Not Withheld Service

Mr. Chris Munns, Assistant Attorney General, Solicitor General Section, was present to provide legal advice to the Board, if requested.

Ms. Mehrzad Khorsandi was present to address the Board. Ms. Khorsandi provided the Board with a summary of the appeal and the action she was requesting the Board to consider. Ms. Khorsandi requested that the Board allow her to purchase service credits for August 1988 through May 1999 as Contributions Not Withheld.

Ms. Jothi Beljan, Assistant Attorney General, presented her position regarding Ms. Khorsandi's appeal to the Board, referenced her recommended motion and responded to questions from the Board.

Motion: Mr. Jeff Tyne moved to modify the Administrative Law Judge's Decision as follows:

1. Correct the phrase *from* "as Other Public Service pursuant to A.R.S. § 38-743" to "as a Contributions Not Withheld pursuant to A.R.S. § 38-738" in Finding of Fact No. 4 and Conclusion of Law No. 1 based on ASRS hearing exhibits H and I.
2. Delete the content in Conclusion of Law No. 3 and insert the following language in its place, "A.R.S. § 38-738(B), (C) and (D) provide as follows:" and inserting the statutory language of A.R.S. § 38-738(B), (C) and (D) in Conclusion of Law No. 3.
3. Correct the phrase *from* "as Other Public Service pursuant to A.R.S. § 38-743" to "as a Contributions Not Withheld pursuant to A.R.S. § 38-738" in Conclusion of Law No. 8 to state, "Appellant again contacted ASRS in October 2014 to purchase her employment from August 1998, to May 1999 with MCCC as a *Contributions Not Withheld pursuant to A.R.S. § 38-738*" based on ASRS hearing exhibits H and I.
4. Insert the phrase "as required by A.R.S. § 38-738(B)(7) and (C) and A.A.C. R2-8-702(A)" at the end of conclusion of Law No. 8.

5. Correct the phrase used twice in Conclusion of Law No. 9 *from* “Other Public Service pursuant to A.R.S. § 38-743” *to* “a Contributions Not Withheld pursuant to A.R.S. § 38-738.”

Mr. Clark Partridge seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved.

6. Presentation Regarding Government Finance Officers Association (GFOA) Financial Reporting Awards

The GFOA Financial Reporting Awards will be presented at the September 25, 2015 Board meeting.

7. Presentation, Discussion, and Appropriate Action Regarding ASRS Investment Program Updates

Mr. Gary Dokes, Chief Investment Officer, and Mr. Dave Underwood, Assistant Chief Investment Officer, were present to provide the Board with an update on the Investment Program. Mr. Dokes highlighted the ASRS positioning, indicating it is underweight in fixed income and slightly overweight in total equities. Due to recent changes in the market, specifically China, staff has taken steps to increase some of the underweighting to risk assets and the next report to the Board should reflect those efforts. Mr. Dokes further added that although the ASRS is net positive on the longer term, with the current issues in China that could potentially cause issues around the world from a growth standpoint; the ASRS will continue to be cautious.

Mr. Dokes shared with the Board some items that have been focused on lately. The private markets program will be looked at in conjunction with the pacing schedule. Also, in the next couple of months, the draws in the private market will be looked at closely.

Mr. Dokes took a moment to recognize two investment staff members who recently obtained additional certifications; one completed the CFA program; and one completed an MBA program. Mr. Dokes further stated that many of the investment staff continues to further their education which is a strong support for the ASRS.

8. Presentation, Discussion, and Appropriate Action Regarding Independent Reporting, Monitoring, and Oversight of the ASRS Investment Program

Mr. Dan LeBeau, Consultant, NEPC, addressed the Board regarding NEPC’s independent reporting, monitoring, and oversight of the ASRS Investment Program including Total Fund performance through June 30, 2015.

As of June 30, 2015 the Total Fund’s market value was approximately \$34.9 billion.

For the one-year period ending June 30, 2015, the Total Fund returned 3.2% (net of fees), outperforming the Interim SAA Policy by 1.6%. For the three-year period, the Total Fund produced a return of 11.4% per annum, outperforming the Interim SAA Policy by 0.9%. Over the past ten years, the Total Fund has returned 6.9% per annum, and since inception, the portfolio’s performance is 9.9%.

9. Presentation, Discussion, and Appropriate Action Regarding the ASRS Funding Policy

Mr. Paul Matson, Director, presented the Funding Policy to the Board. Although the policy was previously presented to the Board, Mr. Matson provided background for Mr. Clark Partridge, the newest Trustee, in addition to highlighting some of the changes that have been made since the last review with the Board.

Mr. Matson stated the Funding Policy aggregates both documented and undocumented concepts the ASRS has had with additional concepts and incorporates them into one policy. The following are both changes made to the policy since the Board's last review and recommended changes presented by Mr. Matson:

- Page 2, #1-Goals and Objectives have now been numbered in priority order;
- Page 3, #3-Inter-Generational Equity (Time Series Equity) - the second paragraph has been added. Mr. Matson provided some additional amendments to the first sentence of paragraph two to read as follows:
 - Amend the first sentence to read, "Once actuarially determined and granted, Permanent Benefit Increase (PBI) amounts will be amortized over a period of 15 years or less or using the average life expectancy of retirees."
- Page 4, *Amortization of Unfunded Liabilities and Funded Status* – change the second paragraph to read, "The constraints applied to the length of the amortization period are..."
- Page 4, in the chart at the bottom of the page, a new column has been added based on the recommendation of the Office of the Auditor General – "Expected Full Funding Date."

Mr. Matson opened the discussion to comments from the Board and responded to questions.

Motion: Mr. Clark Partridge moved to approve the Funding Policy as amended by Mr. Matson. Mr. Jeff Tyne seconded the motion.

By a vote of 6 in favor, 0 opposed, 0 abstentions, 1 excused, and 2 vacancies, the motion was approved.

Prof. Dennis Hoffman left the meeting at 11:38 a.m. after the vote.

10. Presentation, Discussion, and Appropriate Action Regarding Strategic Topics to be Discussed by the Board During Fiscal Year 2016

Mr. Paul Matson presented the Board with a list of strategic topics to be discussed during Fiscal Year 2016.

Mr. Matson and Ms. Sara Orozco, Strategic Planning Manager, responded to questions from the Board.

Motion: Mr. Clark Partridge moved to approve the strategic topics as presented and allowing staff flexibility to align the topics as resources and priorities are needed with updates to the Board. Mr. Tom Connelly seconded the motion.

By a vote of 5 in favor, 0 opposed, 0 abstentions, 2 excused, and 2 vacancies, the motion was approved.

11. Presentation, Discussion, and Appropriate Action Regarding Board Elections

Mr. Kevin McCarthy introduced the item and announced that he would be willing to remain chair for another year unless another Trustee was interested.

Motion: Mr. Tom Connelly moved to nominate Mr. Kevin McCarthy as the ASRS Board Chair for FY 2016. Mr. Clark Partridge seconded the motion.

By a vote of 5 in favor, 0 opposed, 0 abstentions, 2 excused, and 2 vacancies, the motion was approved.

Motion: Mr. Tom Connelly moved to nominate Mr. Jeff Tyne as the ASRS Board Vice-Chair for FY 2016. Mr. Tom Manos seconded the motion.

By a vote of 5 in favor, 0 opposed, 0 abstentions, 2 excused, and 2 vacancies, the motion was approved.

12. Presentation, Discussion, and Appropriate Action Regarding the Director's Report as well as Current Events

Mr. Paul Matson welcomed Mr. Clark Partridge to the ASRS Board as the newest Trustee. Mr. Matson stated that he had nothing further to add regarding the Director's Report.

13. Presentation and Discussion with Respect to Informational Updates from Prior and Upcoming Committee Meetings

a. Operations and Audit Committee (OAC)

Mr. Jeff Tyne announced the next OAC meeting will be held on September 8, 2015 at 10:30 a.m. in the 14th floor conference room to discuss the Auditor General's Sunset Review Audit results.

b. External Affairs Committee (EAC)

Mr. Tom Manos announced the next EAC meeting will be held on September 11, 2015 at 10:30 a.m. in the 14th floor conference room and will focus on the upcoming legislative agenda and possibly make recommendations to the Board. The Committee will also receive an update on the Administrative Rule Making agenda.

c. Investment Committee (IC)

Mr. Tom Connelly announced the next IC meeting will be held on October 26, 2015 at 2:30 p.m. in the 14th floor conference room. Since the IC just met on August 24, the agenda for the October 26 meeting has not been finalized.

14. Board Requests for Agenda Items

No requests were made.

15. Call to the Public

No one from the public requested to speak.

16. The next regular ASRS Board meeting is scheduled for Friday, September 25, 2015, at 8:30 A.M., at 3300 N. Central Avenue, 10th Floor Board room, Phoenix, Arizona.

17. Presentation, Discussion, and Appropriate Action Regarding the Review of the Director and Employment Contract for the Director

The Review of the Director and Employment Contract will be presented at the September 25, 2015 Board meeting.

18. Adjournment of the ASRS Board

Mr. McCarthy adjourned the Board meeting at 11:50 a.m.

ARIZONA STATE RETIREMENT SYSTEM

Melanie A. Alexander
Board Administrator

Paul Matson
Director



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Paul Matson
Director

MEMORANDUM

TO: Mr. Kevin McCarthy, Chair, Arizona State Retirement System (ASRS) Board

FROM: Mr. Anthony Guarino, Deputy Director and Chief Operations Officer
Mr. Brian Crockett, Senior Management Analyst

DATE: September 10, 2015

RE: **Agenda Item #5:** Presentation, Discussion, and Appropriate Action Regarding the ASRS' Performance in the CEM Pension Benefit Administration Benchmarking Survey for the Period ending June 30, 2014

Purpose

To discuss the Fiscal Year (FY) 2014 results of the pension benefit administration benchmarking study conducted by CEM Benchmarking Inc.

Recommendation

Information item only; no action required.

Background

The ASRS has participated in the CEM pension benefit administration benchmarking study since 2001. Each year, the ASRS submits data regarding service features, transaction volume, and costs and staffing, broken down by activity, membership, and plan design. CEM compiles the results and provides a report detailing the cost effectiveness of the ASRS. Specifically, the report compares and contrasts:

- Peer Characteristics
- Service Levels
- Total Costs
- Cost by Activity
- Staff Costs and Productivity
- Transaction Volumes
- Complexity
- IT and Major Projects

Ms. Jan Hartford, the Director of Pension Benefit Administration Benchmarking for CEM Benchmarking Inc., will present the FY14 results for the ASRS.

The major takeaway for FY14 is the ASRS has a productive, low cost, and cost effective operation that provides high levels of service.

Arizona State Retirement System

Pension Administration Benchmarking

Results FY 2014



Jan Hartford
September 25, 2015

What are the benefits of benchmarking?

- Successful benchmarking using peer comparative analysis can result in significant benefits:
 - Changes in performance and innovation
 - Improvement in service, quality and productivity
 - Improved performance measurement
 - Opens your organization to new methods, ideas and tools
- ***“What gets measured, gets managed”***

CEM facilitates the sharing of ideas and best practices:

- CEM hosts an online peer network
- CEM hosts an annual global best practices conference
 - 2016 in Austin, Texas
 - Co-hosted by the Teacher Retirement System of Texas
- CEM conducts and shares practices research:
 - Trends in Employer Service
 - Trends in Member Transactions
 - Use of Social Media in Member Communication

CEM's universe of participants

Participants

United States

Arizona SRS
 CalPERS
 CalSTRS
 Colorado PERA
 Delaware PERS
 Florida RS
 Idaho PERS
 Illinois MRF
 Indiana PRS
 Iowa PERS
 KPERS
 LACERA
 Maine PERS
 Michigan ORS
 MOSERS
 Nevada PERS
 North Carolina RS
 NYC TRS
 NYSLRS
 Ohio PERS
 Ohio SERS
 Oregon PERS

Pennsylvania PSERS
 South Carolina RS
 South Dakota RS
 STRS Ohio
 TRS Illinois
 TRS Louisiana
 TRS of Texas
 Utah RS
 Virginia RS
 Washington State DRS
 Wisconsin DETF

The Netherlands

ABP
 bpfBOUW
 Pensioenfonds Metaal en Techniek
 Pensioenfonds van de Metalektro
 PFZW
 Rabobank Pensioenfonds
 Pensioenfonds voor de
 Woningbouwcorporaties

Canada

APS
 BC Pension Corporation
 Canada Post
 Defence Canada
 Desjardins
 FPSP
 HOOPP
 LAPP
 OMERS
 Ontario Pension Board
 Ontario Teachers
 OPTrust
 RCMP
 Saskatchewan HEPP

Denmark

ATP

United Arab Emirates

Abu Dhabi RPB

Australia*

AustralianSuper
 BUSS(Q)
 CBUS
 First State Super
 HESTA
 QSuper
 REST
 StatewideSuper
 SunSuper
 VicSuper

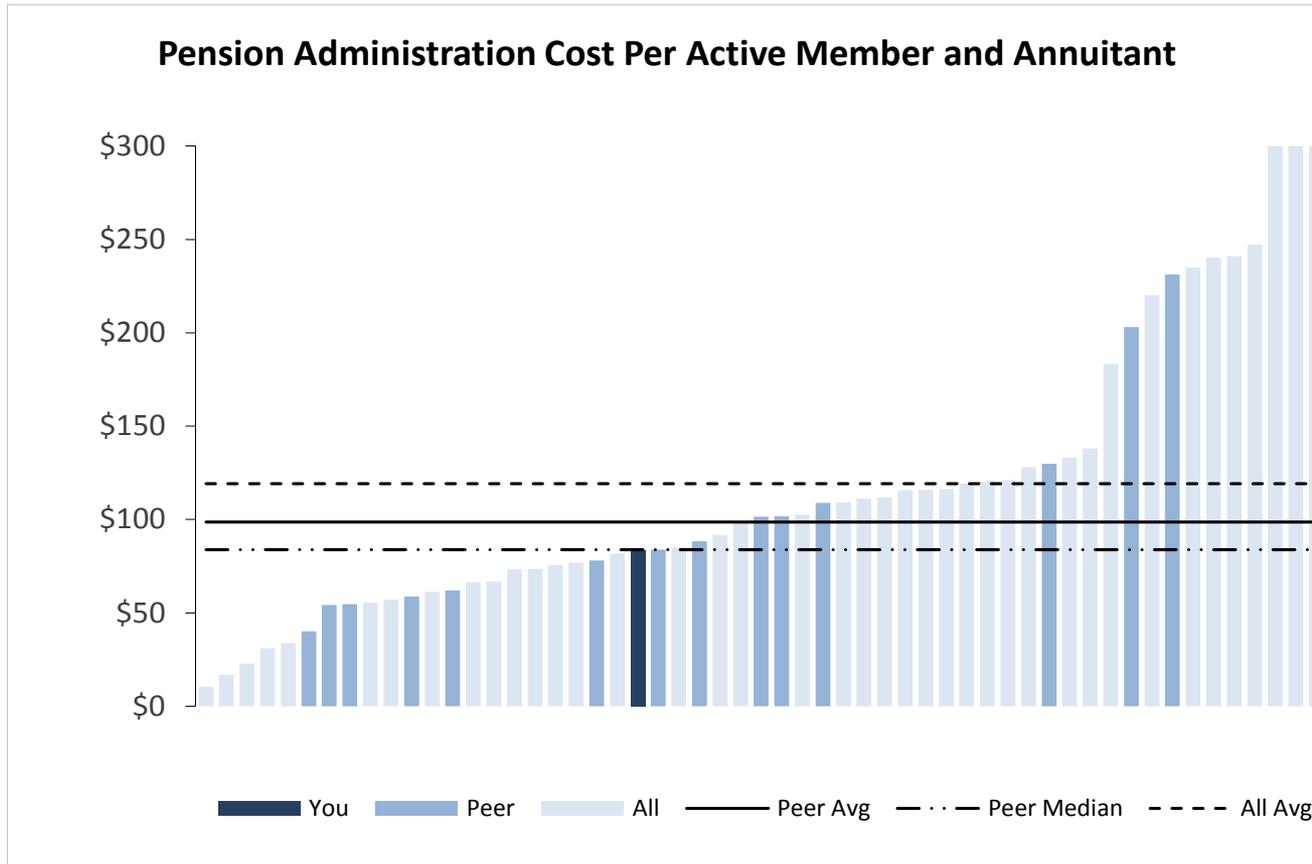
United Kingdom*

Armed Forces Pension Schemes
 Principal Civil Service Pension Scheme
 Railway Pensions
 Rolls Royce
 Shell UK
 Scottish Public Pension Agency
 The Pension Protection Fund
 Universities Superannuation Scheme

ASRS was compared to the following peers:

| Custom Peer Group for Arizona SRS | | | |
|-----------------------------------|-----------------------|------------|------------|
| Peers (sorted by size) | Membership (in 000's) | | |
| | Active | | |
| | Members | Annuitants | Total |
| CalSTRS | 421 | 274 | 695 |
| Ohio PERS | 347 | 195 | 543 |
| Virginia RS | 341 | 177 | 519 |
| Michigan ORS | 236 | 255 | 492 |
| Washington State DRS | 296 | 158 | 454 |
| Indiana PRS | 257 | 138 | 395 |
| STRS Ohio | 211 | 154 | 365 |
| Arizona SRS | 203 | 130 | 334 |
| Colorado PERA | 229 | 103 | 332 |
| Oregon PERS | 162 | 131 | 294 |
| Illinois MRF | 174 | 107 | 281 |
| Iowa PERS | 166 | 108 | 274 |
| KPERS | 155 | 87 | 242 |
| NYC TRS | 117 | 82 | 199 |
| TRS Louisiana | 88 | 74 | 162 |
| Peer Median | 211 | 131 | 334 |
| Peer Average | 227 | 145 | 372 |

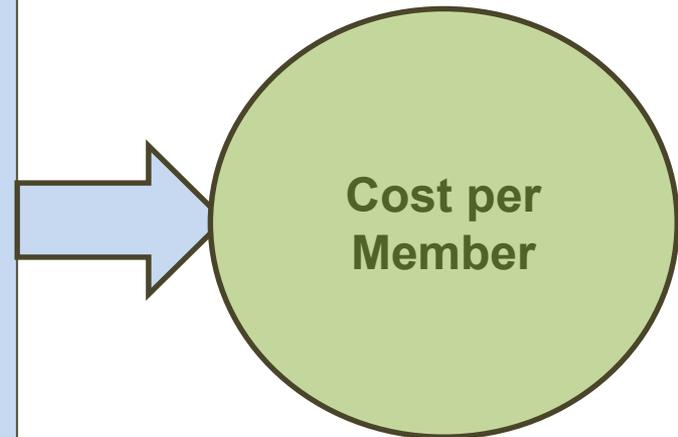
Your Total Pension Administration Cost was \$83.42 per active member and annuitant.



- This was \$15.23 below the peer average of \$98.65 and \$35.73 below the all average of \$119.15.
- Your total pension administration cost was \$27.8 million.

CEM uses this cost model to explain differences in total costs:

1. Economies of scale
2. Transactions per member (Workloads)
3. Transactions per FTE (Productivity)
4. Cost per FTE
5. Third party and other costs
6. Back-office activity costs

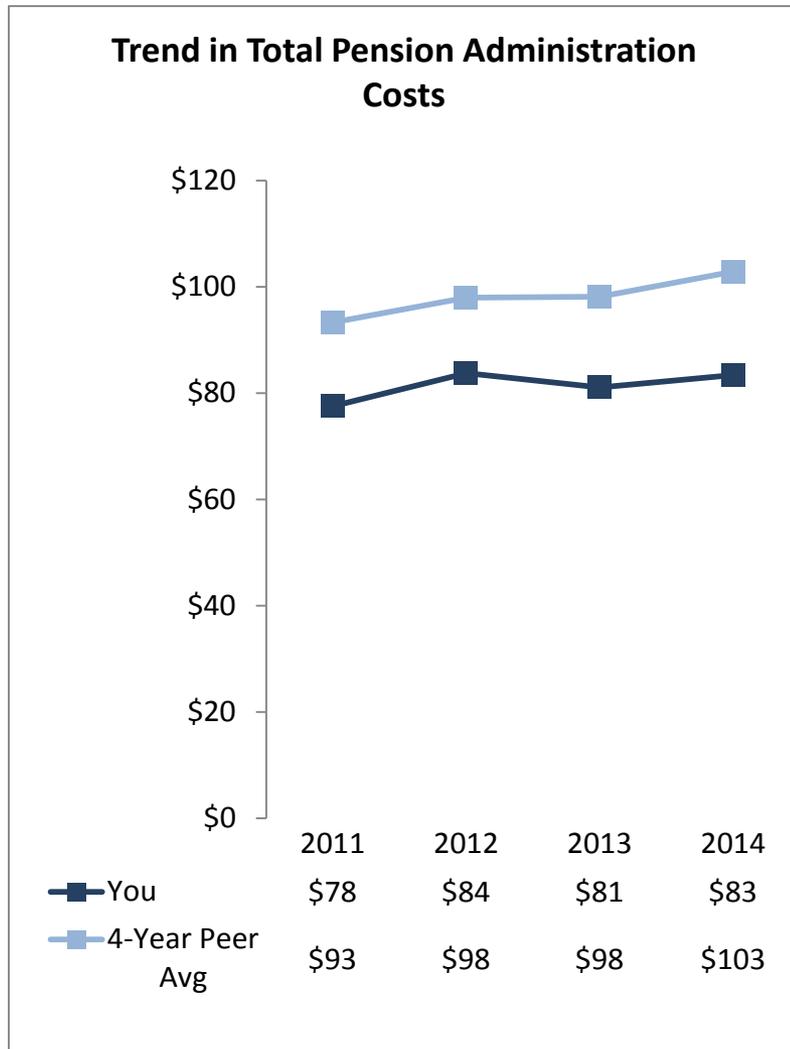


Primary reason why your pension administration cost was \$16 below the peer average.

- Lower costs in the back-office activities:

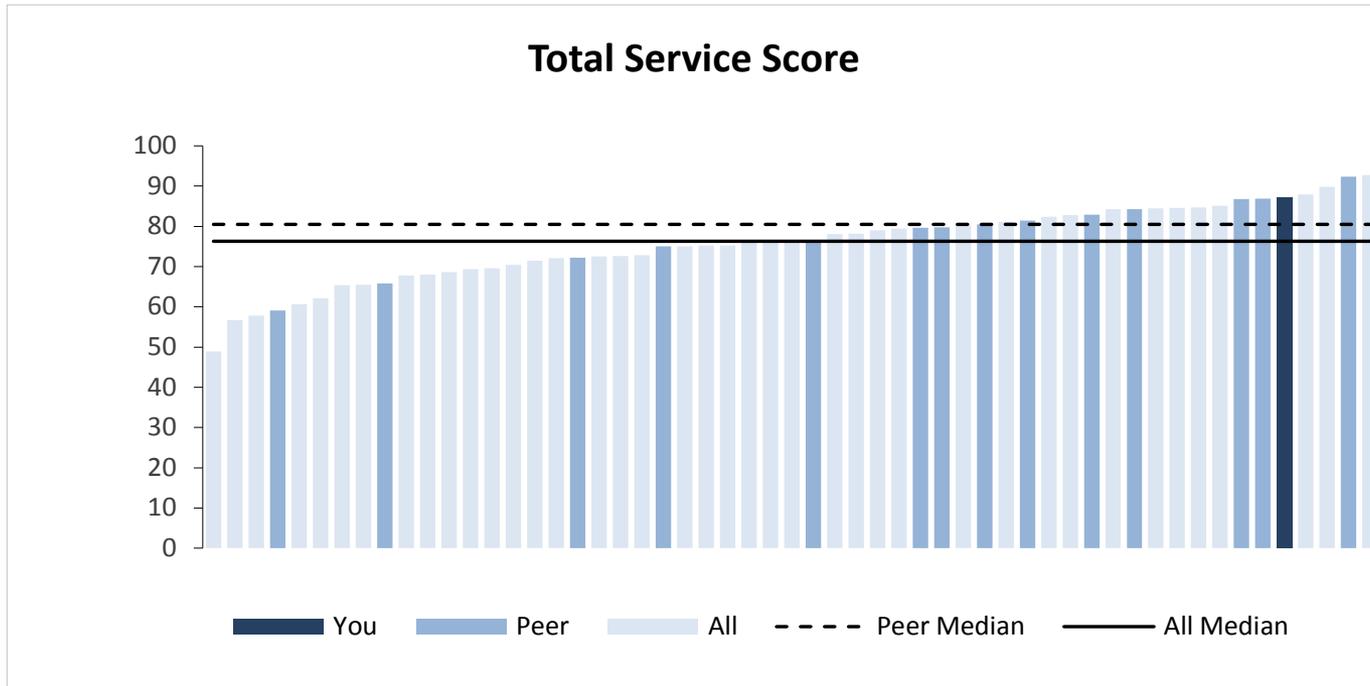
| Back-Office Activities - Cost per Member | | | |
|---|----------------|----------------|-----------------|
| Back Office Activities | You | Peer Avg | More/-less |
| Governance and Financial Control | \$7.79 | \$8.69 | -\$0.90 |
| Major Projects | \$7.59 | \$12.83 | -\$5.24 |
| IT Strategy, Database, Applications (excluding Major Projects) | \$9.51 | \$17.00 | -\$7.49 |
| Actuarial, Legal, Audit, Other | \$8.82 | \$11.68 | -\$2.86 |
| Total | \$33.72 | \$50.21 | -\$16.49 |

Cost trends:



- Your total pension administration cost per active member and annuitant increased by 2.5% per year between 2011 and 2014.
- During this same period, the average cost of your peers increased by 3.3% per year.

Your total service score was in the top quartile.



- Your total service score was 87 - above the peer median of 80, and all-participant median of 76.
- CEM defines service from the member's perspective:
 - More channels
 - Faster turnaround times
 - More availability
 - More choice
 - Better content
 - Higher quality

| Select Key Service Metrics | You | Peer Avg |
|---|---------|----------|
| <u>Member Contacts</u> | | |
| • % of calls resulting in undesired outcomes (busy signals, messages, hang-ups) | 4% | 13% |
| • Average total wait time including time negotiating auto attendants, etc. | 80 secs | 193 secs |
| <u>Website</u> | | |
| • Can members access their own data in a secure environment? | Yes | 100% Yes |
| • Do you have an online calculator linked to member data? | Yes | 93% Yes |
| • # of other website tools offered such as changing address information, registering for counseling sessions and/or workshops, viewing or printing tax receipts, etc. | 17 | 13 |
| <u>1-on-1 Counseling and Member Presentations</u> | | |
| • % of your active membership that attended a 1-on-1 counseling session | 8.6% | 5.2% |
| • % of your active membership that attended a presentation | 4.2% | 5.9% |
| <u>Pension Inceptions</u> | | |
| • What % of annuity pension inceptions are paid without an interruption of cash flow greater than 1 month between the final pay check and the first pension check? | 92.0% | 88.2% |
| <u>Member Statements</u> | | |
| • How current is an active member's data in the statements that the member receives? | 0.0 mos | 2.0 mos |
| • Do statements provide an estimate of the future pension entitlement? | Yes | 73% Yes |

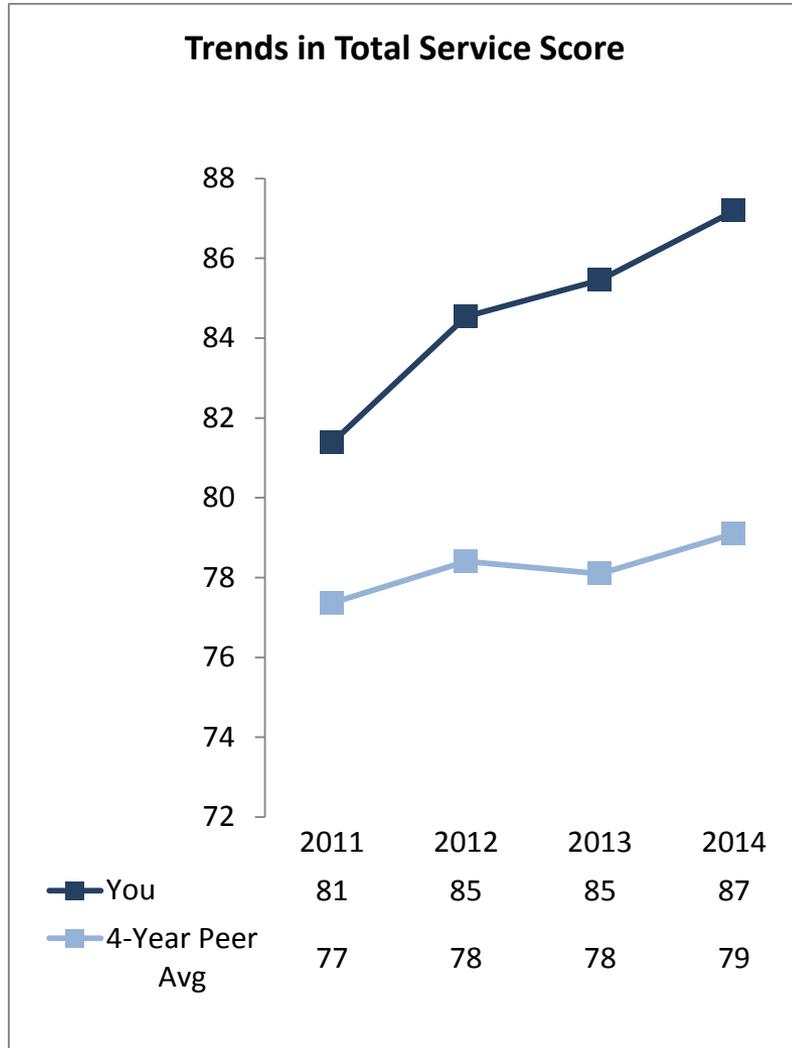
Where can ASRS improve your score?

- Improve your call wait time
- Survey member satisfaction for the website secure area
- Offer more targeted newsletters

CEM is not recommending these changes.

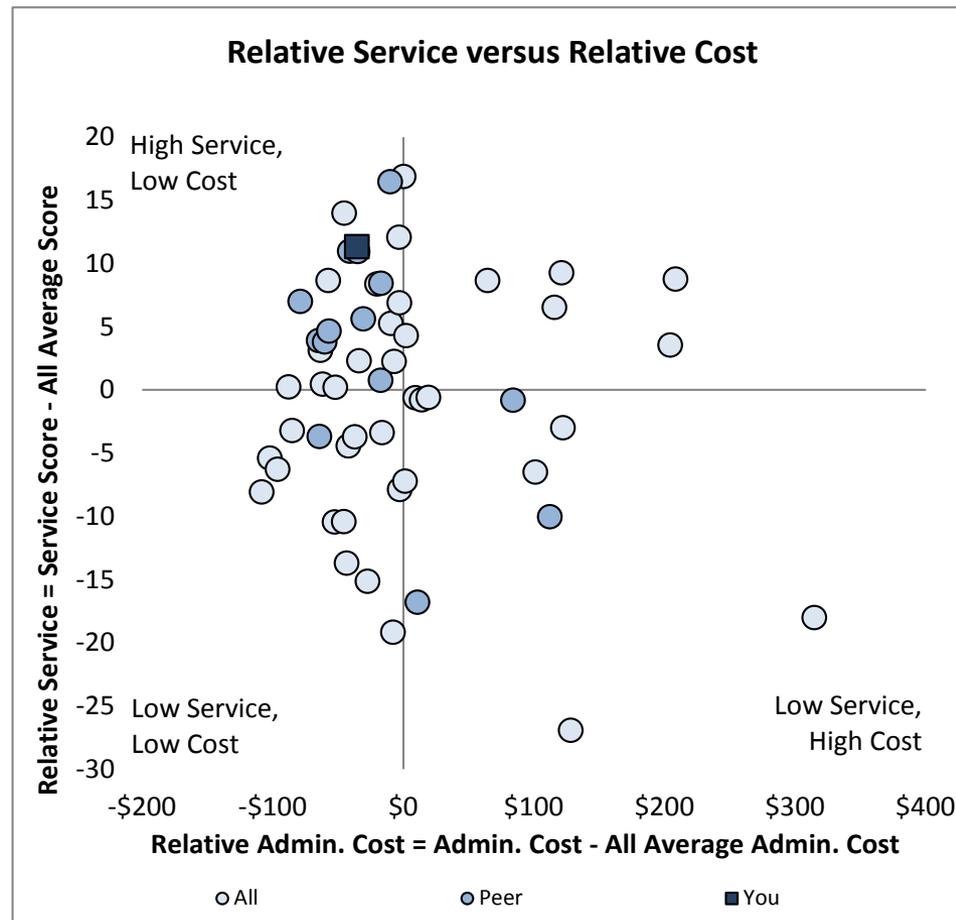
Service improvement should be cost effective and important to your members.

Service trends:



- Your service score increased from 81 to 87 between 2011 and 2014.
- Your average call wait time has decreased from 153 to 80 seconds.
- Undesired call outcomes have decreased from 10% of total calls to 4%.
- You have made significant improvements to your website.
- You have improved your satisfaction surveying program.

Relationship between service and pension administration cost



Key Takeaways:

- Your cost of \$83 per member and annuitant was below the peer average of \$99.
- The primary reasons why:
 - Lower costs in the back-office activities
- Your total service score is in the universe top quartile.
- Your service score improved from 81 to 87 over the last 4 years.
 - You have made improvements to your call center, member website and satisfaction surveying program.





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Paul Matson
Director

MEMORANDUM

TO: Mr. Kevin McCarthy, Chair, Arizona State Retirement System (ASRS) Board

FROM: Mr. Paul Matson, Director
Mr. Gary R. Dokes, Chief Investment Officer (CIO)
Mr. Karl Polen, Head of Private Markets Investing

DATE: September 10, 2015

RE: Agenda Item #6: Presentation, Discussion, and Appropriate Action Regarding the ASRS Real Estate Strategic Plan Revisions

Purpose

To present, discuss, and take appropriate action regarding revisions to the Real Estate Investment Program Strategic Plan.

Recommendation

Recommend the Board approve the ASRS Real Estate Investment Program Strategic Plan, dated June 23, 2015.

Background

The ASRS invests in real estate in accordance with a Real Estate Strategic Plan approved by the Investment Committee and the Board. This Strategic Plan was last updated in October of 2011. At its meeting on July 20, 2015, the Private Markets Committee reviewed and approved proposed changes to the Strategic Plan and recommended them to the Investment Committee (IC) on August 24, 2015. The recommended changes were approved by the IC and are now being recommended to the full Board for approval.

The proposed changes expand the separate account program to encompass a target of 75% of real estate assets. The separate account program is being expanded in order to pursue customized investment strategies, greater alignment of interest and enhanced control through partner of one structures and reduced fees. The proposed changes align the strategic plan with current risk management perspectives by updating the permitted property types and modifying the risk categories to focus on objective and functional risks of property based on leasing status and life cycle stage. The proposed strategic plan maintains leverage targets in the 50% to 60% range, but measures leverage at the total portfolio level allowing some flexibility at the property level for fixed rate debt while constraining variable rate debt at lower leverage levels.

The ASRS real estate consultant has reviewed the revised plan, and has concluded it is appropriate and concurs in its adoption.

Attachments:

1. Real Estate Strategic Plan – Redline compared to prior adopted Strategic Plan
2. Real Estate Strategic Plan – Draft Plan Dated June 23, 2015
3. Strategic Investment Policy (SIP006)



REAL ESTATE INVESTMENT PROGRAM STRATEGIC PLAN

APPROVED: JULY 16, 2004

REVISED: ~~OCTOBER 24~~ June 23, 2015

ARIZONA STATE RETIREMENT SYSTEM
3300 N CENTRAL AVENUE
PHOENIX, AZ 85012

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Executive Summary

The Arizona State Retirement System (ASRS) has determined that, over the long term, inclusion of Real Estate (RE) investments in the total portfolio will provide benefits to the ASRS. In 2003, the ASRS approved a six percent (6%) funding target to institutional RE investments as a part of the ASRS' asset allocation policy. Through subsequent modifications, this target allocation has been increased to 10%. The target allows for a range of plus/minus two percent (+/- 2%). To reach and maintain the ~~six-ten~~ percent (~~6%~~10%) funded target, the ASRS will make allocations in accordance with amounts determined by a pacing study and implementation plan— updated ~~at least twice~~ annually.

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This document establishes the specific objectives and policies involved in the implementation and oversight of the RE program. The objectives define the specific role and return expectations of the RE program. The policies provide specifications for acceptable investment styles and management of the various risks associated with the asset class.

Objectives

The purpose of the ASRS' RE program is to provide the following benefits:

- Achieve attractive risk-adjusted returns.
- Enhance the overall diversification of the ASRS' investment program.
- Generate regular cash flow from stabilized properties.

RE is expected to positively contribute to the ASRS' investment objective to meet or exceed the actuarial assumed investment rate of return of the ASRS. In addition to achieving attractive risk-adjusted returns relative to other asset classes, another objective for RE is to enhance the overall diversification of the ASRS' investment program.

For purposes of total fund performance, the ASRS real estate program will be benchmarked on a net of fees basis against the net return of the NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE). However, by selecting the NFI-ODCE as benchmark, the ASRS considers this benchmark as an opportunity cost, not a model portfolio. The ASRS expects that its portfolio will vary significantly from the ODCE index. The ASRS will manage its investments actively and dynamically in the real estate asset class in order to target a net return expectation of 8%. The 8% net objective represents a significant premium over ~~the~~ 6.5% ~~net~~ long term expectation for passive, stable, equity real estate positions. Incremental returns are expected to result from any one or more of the following active management strategies.

1. Actively managing those assets providing stabilized returns from cash flow in order to maintain and grow cash flow levels over the duration of the hold period.
2. Assume life cycle or market risk to actively create/restore value for realization or stabilized hold.
3. Tactically allocate to strategies favored by market dynamics during isolated periods of time.

The Private Markets Committee (PrivMC) may take a course of action at any time to reduce ASRS' exposure to the real estate asset class or terminate any future funding to the asset class when appropriate risk adjusted returns appear unachievable.

Policies

A. Portfolio Composition

All portfolio investments will be classified by their general risk/return profile. There are two major categories:

1. ~~Core Stable~~ Investments

~~Core Stable~~ investments include existing, substantially leased income-producing properties located principally in metropolitan areas that exhibit reasonable economic diversification. ~~Core Stable~~ properties typically exhibit the following characteristics:

- Predictable income flows with a high proportion of anticipated total return arising from current income and cash flow;
- Located in ~~an economically diversified~~ metropolitan area with adequate demand generators or location features relevant to the property;
- Credit quality tenants or multi-tenant with a staggered lease maturity schedule ~~Quality construction and design features;~~
- Quality construction and design features;
- Reasonable ~~assurance expectation~~ of a broad pool of potential purchasers upon disposition;
- ~~Properties requiring quality asset and portfolio management but not requiring specialized operating expertise which is not readily available in the market.~~
- Investments deemed by the PrivMC to be consistent with the goals of the ~~Core Stable~~ portfolio.

These investments may come in the form of a separately managed account, commingled fund, joint venture, direct investment, co- investment or secondary structure as determined ~~by to be~~ the most appropriate vehicle for the specific investment.

Stable investments may include any property type which generates income from rent or similar charges for the right to occupy the property. This includes without limitation apartments, student housing, senior housing, office, medical office, industrial, self-storage and hotels. Stable properties will not include any "for sale" properties such as condominiums or single family residential which reflect a strategy of subdivision of a property in smaller units for sale whether by plat, condominium regime or other similar method. Agricultural and infrastructure assets (except parking as an interim or complementary use) will not be considered part of the real estate portfolio. The PrivMC will decide whether property types or strategies or appropriate for inclusion in the Real Estate portfolio.

Public RE securities (e.g. Real Estate Investment Trusts or REITs) will also be considered part of the ~~Core Stable~~ component of the ASRS' portfolio. Public RE securities are publicly traded companies that manage a portfolio of real estate based investments in order to produce income and capital appreciation for investors.

2. ~~Non-Core Value Creation~~ Investments

~~Non-Core Value Creation~~ investments represent those properties and/or investment strategies that require specialized acquisition and management expertise or skill to mitigate the business and leasing risk that may be associated with individual investments. ~~Non-Core Value Creation~~ investments have greater associated volatility compared to ~~Core Stable~~ investments. ~~Non-Core Value Creation~~ investments may exhibit one or more of the following characteristics:

- Properties involving significant appreciation, lease-up, construction, development and/or redevelopment risks;

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- ~~Properties located in secondary and tertiary markets, which are not economically diversified and may have accompanying susceptibility to imbalances of demand and supply;~~
- ~~For Sale P~~property types including (but not limited to) ~~hotels, motels, senior housing, and condominiums and single family~~ residential housing, ~~which require specialized management skills focusing primarily on operating business expertise rather than pure real estate management expertise;~~
- Debt Securities and/or Properties which are considered to be in “work out” mode;

- ~~• Properties involving significant appreciation, lease-up, development and/or redevelopment risks;~~
- ~~• Financing or investment structures that impact cash flows and/or require additional administrative expertise~~Distressed for control and restructuring situations
- Mezzanine or preferred equity with significant equity features; and,
- Investments deemed by the PrivMC to be consistent with the goals of the Non-Core Value Creation portfolio.

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~~Non-Core Value Creation properties can further be broken down into two categories: Value Added and Opportunistic. These investments may come in the form of a commingled fund, joint venture, direct investment, co-investment or secondary structure as determined by the most appropriate vehicle for the specific investment.~~

~~Value Added RE is characterized as traditional properties that take on moderate additional risk from one or more of the following sources—leasing, redevelopment, repositioning, location in secondary and tertiary markets and specialized property types including hotels, student housing, senior housing or other property types requiring specialized management skills.~~

~~Opportunistic RE takes on additional risks from Value Added RE strategies in order to achieve a higher level of return. Opportunistic investments may include direct RE assets such as development or major redevelopment of office, retail, industrial, multifamily, hotel or specialized property types. Additionally, opportunistic investments could include land investing, operating company investing, distressed debt/properties, and other specialized investments.~~

While the characteristics of risk/return can be grouped and broadly defined, the return expectations from each group will vary from market cycle to market cycle.

Near term, five to seven (5-7) years, return expectations for each group are as follows:

| <u>Component</u> | <u>Expected Net Returns</u> |
|--|-------------------------------|
| Core <u>Stable</u> - Private | Net NFI-ODCE |
| Core - Public Securities | FTSE EPRA/NAREIT Global Index |
| <u>Non-Core Value Creation</u> - Private | Greater than net NFI-ODCE |

The aggregate benchmark for the RE portfolio will be Net NFI-ODCE. The selection of a benchmark is not intended to establish a portfolio structure.

~~The long-term goal of the RE portfolio as a whole (for implementation by approximately 2020) will be investment of 65% (plus or minus 10%) of real estate assets to core and value add strategies and 35% (plus or minus 10%) of assets in opportunistic strategies. As much as feasible, compliance will be measured at the asset level and individual assets may transition from one category to another as their characteristics change. Risk criteria will not be applied at the manager or account level. Progression toward the long-term goal will be considered when considering new allocations and investments.~~

~~As of mid 2011, the RE portfolio holds higher than the target amounts in opportunistic real estate and is under weight in core and value add. During the transition process the portfolio constraints will be the same as those in the prior version of this real estate strategic plan. To wit, the constraints shall remain:~~

The risk constraints by category are as follows:

| <u>Component</u> | <u>Minimum/Maximum</u> |
|------------------|------------------------|
|------------------|------------------------|

~~Total Core Stable~~ Minimum ~~40~~20%

Public Securities Maximum 30%

~~Non-Core Value Creation (Value Add plus Opportunistic)~~ Maximum ~~60~~80%

Construction and development risk (excluding fully preleased build to suits) Maximum 30%

~~Based on the current portfolio, it is anticipated that the above constraints will be utilized through 2020.~~

B. Portfolio Structure

The ASRS will implement its total RE allocation through two distinct programs.

1. ~~Strategic-Separate Account~~ Allocations

~~5075%~~ (+/- 10%) of the portfolio allocations will be directed to ~~Strategic-Separate Account~~ Manager (SMA) relationships wherein the selected managers will manage across ~~CoreStable, Value Added and Opportunistic-Value Creation~~ investments to achieve the 8% net return objective ~~on an inception IRR basis, over rolling five-year periods. ASRS will be the majority owner and will have significant control rights in any Separate Account, including the right to terminate the investment period preventing new investments being made in the account.~~ ~~Separate Account~~ Relationships are intended to be limited in number (~~estimated at 4-6~~~~estimated at 10 to 15~~). Firms are expected to be vertically integrated with full service capabilities (property construction, leasing, management etc.) in their targeted investment class(es).

2. ~~Tactical-Commingled~~ Allocations

~~5025%~~ (+/- 10%) of the portfolio allocations will be directed toward ~~Tactical-Commingled~~ investment strategies based on market opportunities and expected returns. Investments may include, but not be limited to, Public Securities, Open-ended Commingled Funds, Closed-end Commingled Funds and other permissible vehicles discussed herein. ~~In Commingled Investments, ASRS will be a non-control minority owner, generally less than 20% although it may elect to own a larger non-control position in "club" type structures.~~

C. Risk Management

The primary risks associated with equity RE investments include implementation risk, investment manager risk, property market risk, asset and portfolio risk, and liquidity risks. The ASRS will mitigate risk in a prudent manner. Key to the management of risks is clearly established roles and responsibilities of all participants. The ASRS decision-making process ~~is set forth in the governance document known as SIP006, attached heretor as exhibit "A", investment structures and management of risks associated with investing in RE equity are detailed in Exhibit A of this document.~~ ~~Additional r~~Risks will be mitigated through appropriate selection and use of Investment Structures, prudent Diversification and use of Leverage and appropriate Valuation policies as discussed below.

1. Investment Structures

The ASRS recognizes that, ~~regardless of investment structure,~~ RE is an relatively illiquid asset class. ~~The degree of illiquidity is impacted by the investment structure with closed end structures being highly illiquid and open end funds being moderately illiquid. Structures~~Separate accounts that maximize investor control of the assets are preferred ~~because of the ability to negotiate terms to enhance alignment of interest with custom fee structures, negotiate terms permitting the termination of the investment period preventing new investments from being added to the account, create tailored investment criteria, enhance control through a certification process to ensure individual assets meet investment criteria and enhance liquidity through the ability to control exits.~~ ~~The risk associated with the reduced investor control in higher return strategies will be mitigated by limiting exposure to any single investment strategy and/or manager.~~

~~The ASRS will utilize a variety of investment structures. In all cases, the investment structure will be~~

~~determined by the need and ability to mitigate the risks associated with the risk/return profile of a particular investment, including manager and strategy diversification.~~

The ASRS may invest through the following vehicle options:

a. ~~Individually~~Separately Managed Accounts

The ASRS may purchase assets on a ~~wholly-majority (50% or greater)~~ owned basis through ~~Individually-Separately~~ Managed Account (~~SMA~~) structures, ~~in a commingled vehicle~~ or through direct ownership. ~~The ASRS may also consider joint venture or co-investment ownership within IMA structures.~~ ASRS will hold not less than a 50% interest in property in SMA structures and will have control over liquidity after a reasonable period of time for properties to achieve stabilization.

b. Commingled Vehicles

The ASRS may also purchase assets through the ownership of units or shares of commingled vehicles. Any legally permissible vehicle will be allowed including, but not limited to, joint ventures, limited partnerships, real estate investment trusts and limited liability corporations.

2. Diversification

The ASRS will seek to diversify its RE program by manager, property type, property location, and investment style. However, initial allocations, i.e. implementation of the RE program may result in temporary variances to the policies stated below. Variances to the Manager, Vehicle and Property type/location policies will be reviewed and approved by the PrivMC, ~~and discussed and presented to the IC/Board.~~

a. Manager

The ASRS will implement a multi-manager program. At the time of investment, no manager will be more than thirty percent (30%) of the target RE portfolio to ensure that any possible underperformance of one manager will not unduly impact the total portfolio.

b. Vehicle

The ASRS will diversify the risk associated with a single manager and the implemented strategy through the diversification of selected investments. At the time of investment, no single commingled investment will be more than thirty percent (30%) of the target RE portfolio to ensure that any possible underperformance of one vehicle will not unduly impact the total portfolio. When investing in commingled investments, the ASRS will generally mitigate manager and vehicle risk by limiting its pro rata position within any commingled vehicle to twenty percent (20%) of the total equity capital raised at the final close of the vehicle or at the time of investment for open-ended investments. Exceptions to this 20% limit may be made by the PrivMC when allocating to club and joint venture structures.

c. Property Type and Location

The ASRS will diversify its exposure to property type and location. However, it is expected that at various points in time, the portfolio may be more heavily exposed to a single property type or location by virtue of opportunities available in the market, which are projected to generate the alpha targeted by the ASRS. Exposure to any ~~single property type or~~ geographic location (defined as a ~~single NCREIF region~~ Metropolitan Statistical Area as determined by the U.S. Office of Management and Budget and/or a single country except the United States) in excess of forty percent (40%) of the total targeted real estate portfolio will be reviewed as an exception by the PrivMC. Portfolio limits by property type are shown in the following table:

| | |
|--|------------|
| <u>Apartments</u> | <u>50%</u> |
| <u>Retail</u> | <u>30%</u> |
| <u>Office (including Medical Office)</u> | <u>30%</u> |
| <u>Industrial</u> | <u>30%</u> |
| <u>Student Housing</u> | <u>15%</u> |
| <u>Senior Housing</u> | <u>15%</u> |
| <u>Hotel</u> | <u>10%</u> |
| <u>Self-Storage</u> | <u>10%</u> |

| |
|---|
| Other property types authorized by PrivMC |
|---|

| |
|-----|
| 10% |
|-----|

With the maturation of the RE asset class, investments have become global in nature and ASRS may invest outside the United States. ~~The ASRS will seek optimal risk adjusted returns within the context of opportunities located both domestically and internationally.~~ International investments will be limited to no more than thirty percent (30%) of the total targeted RE portfolio and may include coreStable private and public investments as well as ~~non-core~~ Value Creation investments.

3. Leverage

~~The use of leverage, in and of itself, will not be used to define the risk level of the individual asset. As previously discussed, the mid 2011 portfolio will require the RE portfolio to allow for an interim limit on leverage of sixty five percent (65%) of the targeted RE allocation. The long term~~

~~goal (for implementation by approximately 2020) will be a leverage limit of 55% of the target RE portfolio.~~

~~Leverage will be targeted to a range of 50% to 60% of the total portfolio, although individual accounts may have different leverage policies. The PrivMC will monitor and evaluate individual leverage policies so that collectively they result in achieving the target leverage. If appraisal changes, market events or other factors cause actual leverage to be outside the target range, the PrivMC will adopt plans that are expected to result in the portfolio to returning to the target leverage range within a reasonable period of time.~~

~~Strategic Separate Account Managers (SM) will have broad discretion in the use of debt within their individual mandates, however each separate account will have a financing policy approved by the PrivMC as part of the account approval and reviewed annually. ~~no Strategic Manager Portfolio (SMP) will be granted authority in their governing documents to exceed 50% loan to value on a portfolio basis without PrivMC approval.~~ Such governance documents may allow higher initial loan to cost and allow grant reasonable time frames to achieve target leverage with stabilization of properties and to remedy excess leverage situations which occur temporarily in program formation or as a result of appraisal changes. Risk classification of assets held in each SMP will be determined solely on the characteristics of the property; property level debt will not be utilized to classify asset risk. ~~SMPs Appropriateness of leverage ratios will be established based on property type, the stability of the rental stream and whether the loan is fixed rate or not.~~ The following table illustrates leverage limits for property types and loan types.~~

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| | <u>Permitted loan to value for Fixed rate loans or multi-family loans with affordable housing subsidy features with an initial term at least 7 years</u> | <u>Loan to cost at acquisition for Variable Rate Loans</u> | <u>Loan to value at stabilization for Variable Rate Loans</u> |
|---|--|--|---|
| <u>Apartments, student housing and senior housing</u> | <u>75% if amortizing 70% if interest only</u> | <u>65%</u> | <u>50%</u> |
| <u>Single tenant lease with investment grade tenant</u> | <u>75% if amortizing 70% if interest only</u> | <u>65%</u> | <u>50%</u> |
| <u>Other property types</u> | <u>65% if amortizing 60% if interest only</u> | <u>65%</u> | <u>50%</u> |
| | | | |

Separate Account Managers will be evaluated on the prudent use of leverage to ~~most~~ consistently meet/exceed the net 8% return target on an inception IRR basis, over rolling five year periods

~~Tactical-Commingled~~ Allocations may include the use of leverage within specific strategies. Leverage in ~~Tactical-Commingled~~ Portfolio investments will be reviewed and approved in conjunction with PrivMC approval of each allocation. It is expected that the loan to value ratio for the ~~Tactical-Commingled~~ Portfolio will not exceed 60% in the aggregate across all investments however, the PrivMC will determine acceptable leverage for each investment during the approval process. Tactical allocations will be evaluated relative to targeted returns, equity multiples and vintage year performance.

Variances to the leverage policies will be reviewed and approved by the PrivMC ~~and discussed and presented to the IC/Board.~~

~~4.~~ 4 Valuations

All investments in ~~an ISMA~~ and directly owned investments will be independently valued on an annual basis in accounts established or amended after 2012. For accounts established in 2012 or earlier, assets will be appraised not less than once every three years by a qualified expert (certified Member of the Appraisal Institute-MAI). During interim years, if applicable, valuations will be performed by the Manager in accordance with industry standards. Investments held in commingled funds will be subject to the agreed upon valuation policy approved with the selection of the investment.

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Exhibit A (attach copy of SIP006)

Roles for Participants

~~The ASRS RE program shall be planned, implemented, and monitored through the coordinated efforts of the Board, Investment Committee (IC), Private Markets Committee (PrivMC), Director, CIO, and Investment Management Division (IMD) RE staff, and RE consultant (Consultant). The IMD RE staff will be primarily responsible for implementing the investment decisions of the PrivMC, the IC and the Board. The ASRS has out sourced the “back office” function for real estate investments. Set forth below is the delegation of the major responsibilities of each participant.~~

Duties of the Board

- ~~• Establish the allocation to and role of real estate to the ASRS.~~
- ~~• Approve the RE Investment Program Strategic Plan and any changes and modifications to same.~~
- ~~• Review and approve macro level strategic investment policies which guide the strategic vision for ASRS investments.~~
- ~~• Formally review the RE asset class on an annual basis.~~

Duties of the Investment Committee (IC)

- ~~• Recommend to the Board the RE Investment Program Strategic Plan and any changes and modifications to same.~~
- ~~• Provide expert advice to the Board and PrivMC.~~

Duties of the Private Markets Committee (PrivMC)

- ~~• Recommend to the IC the Strategic Plan for the RE program.~~
- ~~• Recommend to the Director the selection, retention and termination of asset class consultants and staff extension consultants.~~
- ~~• Final decision making authority on investments for the RE program subject to referral to IC in accordance with Board procedures.*~~
- ~~• Final decision making authority on real estate related investments recommended pursuant to the opportunistic private investments strategic plan subject to referral to IC in accordance with Board procedures.*~~
- ~~• Approve the hiring/retention/termination of legal counsel for the RE program in accordance with procurement procedures.*~~
- ~~• Review and, as appropriate, approves tactical variances to the objectives and policies of RE program targets/ranges during the implementation period.~~

~~*Decisions require the consensus of the Director and CIO.~~

Duties of the Director

- ~~Member of the PrivMC. No investments made without concurrence of Director.~~
- ~~Approve the selection, retention and termination of asset class committee consultants and staff extension consultants. The IC must consent to the Director's recommendation before the primary consultant for an asset class committee is hired or terminated.~~
- ~~Review and approve the RE Standard Operating Procedures.~~
- ~~Consent to the decisions made by the PrivMC; requires CIO's concurrence.~~

Duties of the CIO

- ~~Member of the PrivMC. No investments made without concurrence of CIO.~~
- ~~Execute the decisions made by the PrivMC.~~
- ~~Review and approve the RE Standard Operating Procedures.~~

Duties of the IMD RE Staff

- ~~Prepare, in consultation with the consultant, the strategic plan and updates thereto.~~
- ~~Review potential investments and make investment recommendations to the Director, CIO and PrivMC.~~
- ~~Oversee the day-to-day operational activities of the RE program including manager identification, due diligence, agreements, consultant activities, legal counsel activities, investment cash flows and other real estate compliance to policy.~~
- ~~Coordinate PrivMC meetings.~~
- ~~Develop RE Standard Operating Procedures.~~

Duties of the Consultants

- ~~Act as a fiduciary and advisor to the Plan on all investment decisions involving a first time (this excludes for instance, fund add-ons and secondary market purchases of an LP interest in a partnership already owned by the ASRS) investment with a partner or partnership, as well as other RE program matters as determined and requested by the Private Markets Committee.~~
- ~~Advise on the establishment, ongoing review, and recommendations of revisions to the RE Investment Program Strategic Plan and Tactical Asset Allocation Plan.~~
- ~~Advise on the implementation of the policy and managing the RE program.~~
- ~~Conduct, as requested by the ASRS, Due Diligence activities with full fiduciary responsibilities.~~
- ~~Bring any non conforming items or significant issues to the attention of the PrivMC, and as applicable, to the IC and/or Board.~~
- ~~Perform other duties and responsibilities as defined by contract relationship.~~

Duties of the "Back Office"

- ~~Prepare Quarterly Performance Reports~~
- ~~Collect data and manage the data flow to and from RE managers.~~
- ~~Execute capital calls and distributions from investment vehicles.~~



REAL ESTATE INVESTMENT PROGRAM STRATEGIC PLAN

APPROVED: JULY 16, 2004

REVISED:

ARIZONA STATE RETIREMENT SYSTEM
3300 N CENTRAL
AVENUE
PHOENIX, AZ 85012

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Executive Summary

The Arizona State Retirement System (ASRS) has determined that, over the long term, inclusion of Real Estate (RE) investments in the total portfolio will provide benefits to the ASRS. In 2003, the ASRS approved a six percent (6%) funding target to institutional RE investments as a part of the ASRS' asset allocation policy. Through subsequent modifications, this target allocation has been increased to 10%. The target allows for a range of plus/minus two percent (+/- 2%). To reach and maintain the ten percent (10%) funded target, the ASRS will make allocations in accordance with amounts determined by a pacing study and implementation plan updated annually.

This document establishes the specific objectives and policies involved in the implementation and oversight of the RE program. The objectives define the specific role and return expectations of the RE program. The policies provide specifications for acceptable investment styles and management of the various risks associated with the asset class.

Objectives

The purpose of the ASRS' RE program is to provide the following benefits:

- Achieve attractive risk-adjusted returns.
- Enhance the overall diversification of the ASRS' investment program.
- Generate regular cash flow from stabilized properties.

RE is expected to positively contribute to the ASRS' investment objective to meet or exceed the actuarial assumed investment rate of return of the ASRS. In addition to achieving attractive risk-adjusted returns relative to other asset classes, another objective for RE is to enhance the overall diversification of the ASRS' investment program.

For purposes of total fund performance, the ASRS real estate program will be benchmarked on a net of fees basis against the net return of the NCREIF Fund Index - Open End Diversified Core Equity (NFI- ODCE). However, by selecting the NFI-ODCE as benchmark, the ASRS considers this benchmark as an opportunity cost, not a model portfolio. The ASRS expects that its portfolio will vary significantly from the ODCE index. The ASRS will manage its investments actively and dynamically in the real estate asset class in order to target a net return expectation of 8%. The 8% net objective represents a significant premium over the 6.5% net long term expectation for passive, stable, equity real estate positions. Incremental returns are expected to result from any one or more of the following active management strategies.

1. Actively managing those assets providing stabilized returns from cash flow in order to maintain and grow cash flow levels over the duration of the hold period.
2. Assume life cycle or market risk to actively create/restore value for realization or stabilized hold.
3. Tactically allocate to strategies favored by market dynamics during isolated periods of time.

The Private Markets Committee (PrivMC) may take a course of action at any time to reduce ASRS' exposure to the real estate asset class or terminate any future funding to the asset class when appropriate risk adjusted returns appear unachievable.

Policies

A. Portfolio Composition

All portfolio investments will be classified by their general risk/return profile. There are two major categories:

1. Stable Investments

Stable investments include existing, substantially leased income-producing properties located principally in metropolitan areas that exhibit reasonable economic diversification. Stable properties typically exhibit the following characteristics:

- Predictable income flows with a high proportion of anticipated total return arising from current income and cash flow;
- Located in a metropolitan area with adequate demand generators or location features relevant to the property;
- Credit quality tenants or multi-tenant with a staggered lease maturity schedule ;
- Quality construction and design features;
- Reasonable expectation of a broad pool of potential purchasers upon disposition;
- Investments deemed by the PrivMC to be consistent with the goals of the Stable portfolio.

These investments may come in the form of a separately managed account, commingled fund, joint venture, direct investment, co- investment or secondary structure as determined to be the most appropriate vehicle for the specific investment.

Stable investments may include any property type which generates income from rent or similar charges for the right to occupy the property. This includes without limitation apartments, student housing, senior housing, office, medical office, industrial, self-storage and hotels. Stable properties will not include any “for sale” properties such as condominiums or single family residential which reflect a strategy of subdivision of a property in smaller units for sale whether by plat, condominium regime or other similar method. Agricultural and infrastructure assets (except parking as an interim or complementary use) will not be considered part of the real estate portfolio. The PrivMC will decide whether property types or strategies are appropriate for inclusion in the Real Estate portfolio.

Public RE securities (e.g. Real Estate Investment Trusts or REITs) will also be considered part of the Stable component of the ASRS’ portfolio. Public RE securities are publicly traded companies that manage a portfolio of real estate based investments in order to produce income and capital appreciation for investors.

2. Value Creation Investments

Value Creation investments represent those properties and/or investment strategies that require specialized acquisition and management expertise or skill to mitigate the business and leasing risk that may be associated with individual investments. Value Creation investments have greater associated volatility compared to Stable investments. Value Creation investments may exhibit one or more of the following characteristics:

- Properties involving significant appreciation, lease-up, construction, development and/or redevelopment risks;
- For Sale property types including (but not limited to) condominiums and single family residential housing;
- Debt Securities and/or Properties which are considered to be in “work out” mode;
- Distressed for control and restructuring situations;
- Mezzanine or preferred equity with significant equity features; and,
- Investments deemed by the PrivMC to be consistent with the goals of the Value Creation portfolio.

Value Creation investments may come in the form of a commingled fund, joint venture, direct investment, co- investment or secondary structure as determined by the most appropriate vehicle for the specific investment.

While the characteristics of risk/return can be grouped and broadly defined, the return expectations from each group will vary from market cycle to market cycle.

Near term, five to seven (5-7) years, return expectations for each group are as follows:

| <u>Component</u> | <u>Expected Net Returns</u> |
|---------------------------------------|-----------------------------|
| Stable - Private | Net NFI-ODCE |
| Public Securities | FTSE EPRA/NAREIT |
| Global Index Value Creation - Private | Greater than net NFI-ODCE |

The aggregate benchmark for the RE portfolio will be Net NFI-ODCE. The selection of a benchmark is not intended to establish a portfolio structure.

The risk constraints by category are as follows:

| <u>Component</u> | <u>Minimum/Maximum</u> |
|-------------------|------------------------|
| Stable | Minimum 40% |
| Public Securities | Maximum 30% |
| Value Creation | Maximum 60% |

Construction and development risk (excluding fully preleased build to suits) Maximum 30%.

B. Portfolio Structure

The ASRS will implement its total RE allocation through two distinct programs.

1. Separate Account Allocations

75% (+/- 10%) of the portfolio allocations will be directed to Separate Account Manager (SMA) relationships wherein the selected managers will manage across Stable, and Value Creation investments to achieve the 8% net return objective on an inception IRR basis. The ASRS will be the majority owner and will have significant control rights in any Separate Account, including the right to terminate the investment period preventing new investments being made in the account. Separate Account Relationships are intended to be limited in number (estimated at 10 to 15). Firms are expected to be vertically integrated with full service capabilities (property construction, leasing, management etc.) in their targeted investment class(es).

2. Commingled Allocations

25% (+/- 10%) of the portfolio allocations will be directed toward Commingled investment strategies based on market opportunities and expected returns. Investments may include, but not be limited to, Public Securities, Open-ended Commingled Funds, Closed-end Commingled Funds and other permissible vehicles discussed herein. In Commingled Investments, ASRS will be a non-control minority owner, generally less than 20% although it may elect to own a larger non-control position in “club” type structures.

C. Risk Management

The primary risks associated with equity RE investments include implementation risk, investment manager risk, property market risk, asset and portfolio risk, and liquidity risks. The ASRS will mitigate risk in a prudent manner. Key to the management of risks is clearly established roles and responsibilities of all participants. The ASRS decision-making process is set forth in the governance document known as SIP006, attached hereto as “Exhibit A.” Risks will be mitigated through appropriate selection and use of Investment Structures, prudent Diversification and use of Leverage and appropriate Valuation policies as discussed below.

1. Investment Structures

The ASRS recognizes that RE is a relatively illiquid asset class. The degree of illiquidity is impacted by the investment structure with closed end structures being highly illiquid and open end funds being moderately illiquid. Separate accounts that maximize investor control of the assets are preferred because of the ability to negotiate terms to enhance alignment of interest with custom fee structures, negotiate terms permitting the termination of the investment period preventing new investments from being added to the account, create tailored investment criteria, enhance control through a certification process to ensure individual assets meet investment criteria and enhance liquidity through the ability to control exits.

The ASRS may invest through the following vehicle options:

a. Separately Managed Accounts

The ASRS may purchase assets on a majority (50% or greater) owned basis through Separately Managed Account (SMA) structures, or through direct ownership. The ASRS will hold not less than a 50% interest in property in SMA structures and will have control over liquidity after a reasonable period of time for properties to achieve stabilization.

b. *Commingled Vehicles*

The ASRS may also purchase assets through the ownership of units or shares of commingled vehicles. Any legally permissible vehicle will be allowed including, but not limited to, joint ventures, limited partnerships, real estate investment trusts and limited liability corporations.

2. *Diversification*

The ASRS will seek to diversify its RE program by manager, property type, property location, and investment style. However, initial allocations, i.e. implementation of the RE program may result in temporary variances to the policies stated below. Variances to the Manager, Vehicle and Property type/location policies will be reviewed and approved by the PrivMC.

a. *Manager*

The ASRS will implement a multi-manager program. At the time of investment, no manager will be more than thirty percent (30%) of the target RE portfolio to ensure that any possible underperformance of one manager will not unduly impact the total portfolio.

b. *Vehicle*

The ASRS will diversify the risk associated with a single manager and the implemented strategy through the diversification of selected investments. At the time of investment, no single commingled investment will be more than thirty percent (30%) of the target RE portfolio to ensure that any possible underperformance of one vehicle will not unduly impact the total portfolio. When investing in commingled investments, the ASRS will generally mitigate manager and vehicle risk by limiting its pro rata position within any commingled vehicle to twenty percent (20%) of the total equity capital raised at the final close of the vehicle or at the time of investment for open-ended investments. Exceptions to this 20% limit may be made by the PrivMC when allocating to club and joint venture structures.

c. *Property Type and Location*

The ASRS will diversify its exposure to property type and location. However, it is expected that at various points in time, the portfolio may be more heavily exposed to a single property type or location by virtue of opportunities available in the market, which are projected to generate the alpha targeted by the ASRS. Exposure to any geographic location (defined as a Metropolitan Statistical Area as determined by the U.S. Office of Management and Budget and/or a single country except the United States) in excess of forty percent (40%) of the total targeted real estate portfolio will be reviewed as an exception by the PrivMC. Portfolio limits by property type are shown in the following table:

| | |
|---|-----|
| Apartments | 50% |
| Retail | 30% |
| Office (including Medical Office) | 30% |
| Industrial | 30% |
| Student Housing | 15% |
| Senior Housing | 15% |
| Hotel | 10% |
| Self-Storage | 10% |
| Other property types authorized by PrivMC | 10% |

With the maturation of the RE asset class, investments have become global in nature and the ASRS may invest outside the United States. International investments will be limited to no more than thirty percent (30%) of the total targeted RE portfolio and may include Stable private and public investments as well as Value Creation investments.

3. Leverage

Leverage will be targeted to a range of 50% to 60% of the total portfolio, although individual accounts may have different leverage policies. The PrivMC will monitor and evaluate individual leverage policies so that collectively they result in achieving the target leverage. If appraisal changes, market events or other factors cause actual leverage to be outside the target range, the PrivMC will adopt plans that are expected to result in the portfolio to returning to the target leverage range within a reasonable period of time.

Separate Account Managers will have broad discretion in the use of debt within their individual mandates, however each separate account will have a financing policy approved by the PrivMC as part of the account approval and reviewed annually. Such governance documents may allow higher initial loan to cost and allow reasonable time frames to achieve target leverage with stabilization of properties and to remedy excess leverage situations which occur temporarily in program formation or as a result of appraisal changes. Risk classification of assets held in each SMP will be determined solely on the characteristics of the property; property level debt will not be utilized to classify asset risk. Appropriateness of leverage ratios will be established based on property type, the stability of the rental stream and whether the loan is fixed rate or not. The following table illustrates leverage limits for property types and loan types.

| | Permitted loan to value for Fixed rate loans or multi-family loans with affordable housing subsidy features with an initial term at least seven (7) years | Loan to cost at acquisition for Variable Rate Loans | Loan to value at stabilization for Variable Rate Loans |
|--|---|---|--|
| Apartments, student housing and senior housing | 75% if amortizing 70% if interest only | 65% | 50% |
| Single tenant lease with investment grade tenant | 75% if amortizing 70% if interest only | 65% | 50% |
| Other property types | 65% if amortizing 60% if interest only | 65% | 50% |

Separate Account Managers will be evaluated on the prudent use of leverage to consistently meet/exceed the net 8% return target on an inception IRR basis.

Commingled Allocations may include the use of leverage within specific strategies. Leverage in Commingled Portfolio investments will be reviewed and approved in conjunction with PrivMC

approval of each allocation. It is expected that the loan to value ratio for the Commingled Portfolio will not exceed 60% in the aggregate across all investments however, the PrivMC will determine acceptable leverage for each investment during the approval process. Tactical allocations will be evaluated relative to targeted returns, equity multiples and vintage year performance.

Variances to the leverage policies will be reviewed and approved by the PrivMC.

4. Valuations

All investments in a SMA and directly owned investments will be independently valued on an annual basis in accounts established or amended after 2012. For accounts established in 2012 or earlier, assets will be appraised not less than once every three years by a qualified expert (certified Member of the Appraisal Institute-MAI). During interim years, if applicable, valuations will be performed by the Manager in accordance with industry standards. Investments held in commingled funds will be subject to the agreed upon valuation policy approved with the selection of the investment.

Exhibit A

(Attach copy of SIP006)



Investment Manager, Partner, and Co-Investment Selection and Oversight

Purpose:

To codify the policy to be utilized for the selection of public market and private market investment managers and partners. Throughout the remainder of this policy the term *investment manager* will refer to both public and private market investment managers and partners.

Policy:

The ASRS will establish and follow an Investment Manager, Partner, and Co-investment Selection Policy that will govern the process and activities regarding the selection of ASRS investment managers.

The process is outlined as follows:

1. Opportunity Set - Sourcing

The primary responsibility for sourcing investment managers and co-investments resides with the Investment Management Division (IMD). In addition, any other party, specifically including Director, ASRS investment consultants (both staff extension consultants as well as the general consultant), and ASRS trustees may communicate investment manager recommendations or opportunities to either the Director or Chief Investment Officer (CIO).

2. Opportunity Set - Screening

The CIO or designee will determine if the investment manager recommendations or co-investment opportunities deserve further internal or external due diligence resource allocation. This determination will be based upon the merits of the opportunity under consideration, within the context of:

- ASRS strategic asset allocation;
- IMD Investment House Views;
- Investment manager organization structure;
- Investment manager investment strategy, terms and structure; and
- ASRS investment priorities.

3. Analysis and Due Diligence

IMD staff will provide expertise in, and project-manage, the investment manager analysis and due diligence process. This process will include the development of a comprehensive due diligence packet which will be developed by staff extension consultants, IMD staff, or a combination of both. The CIO will determine which staff-extension consultants will be utilized and the related scope-of-work and product deliverables.

The due diligence packet will include sufficient information to ensure the manager has been properly vetted and enable the asset class committee to make an informed decision, and will include but not be limited to the following information, when relevant to the manager:

1. Organization
2. Staff
3. Strategy
4. Terms
5. Performance
6. Risk
 - a. Investment Risk Management
 - b. Operational Risk Management
7. Disclosures
8. Miscellaneous

As applicable, public markets managers and private markets managers may have additional factors included.

The full list of due diligence packet contents can be found in Appendix I.

Decision to hire an investment manager should primarily be evidence-based and based on a reasonable expectation of their ability to add value to ASRS investment goals and objectives. Evidence typically includes empirical data, historical statistical analysis, risk-adjusted return metrics, and risk measures (ex., alpha, beta, r-squared, standard deviation, and Sharpe ratio) in combination with a forward-looking confidence in the strategy and its theoretical logic.

The analysis and due diligence of co-investments, whereby ASRS has the opportunity to participate in a pending investment to be made by a manager of a fund or account, will be evaluated through a process as described in Appendix II.

4. Asset Class Committee Meetings – Decision Making

The CIO will determine which Asset Class Committee (Public Markets or Private Markets) is the appropriate forum to discuss the investment manager under consideration and work with IMD staff regarding the meeting dates for respective Committees.

The due diligence packet will be disseminated to the relevant Committee membership prior to the meeting in order to allow members sufficient time to review and prepare for the meeting.

The ASRS general investment consultant and Internal Audit (IA) will be notified of each Public Market Committee and Private Market Committee meeting and will be provided an agenda and due diligence packet in advance for each meeting in order to allow them sufficient time should they wish to attend or ask questions. The ASRS general investment consultant and IA may attend any Public Market Committee or Private Market Committee meeting.

Asset Class Committees will be comprised of the Director, CIO and one or more IMD portfolio managers as determined by the CIO based upon related skills and knowledge and, as applicable, staff-extension consultants.

Voting members of the Committee include the Director, CIO and one or more IMD portfolio managers. Investment manager selection decisions require the consensus of both the Director and CIO.

As applicable, the ASRS Procurement Officer will distribute Confidentiality and Disclosure forms to IMD staff, which will be completed and returned prior to commencing the meeting.

5. Post-Committee Meeting Documentation and Dissemination

Asset Class Committee meeting minutes will be prepared by IMD staff, which will include the agenda and motions or directives and decisions made by the Committee. The meeting minutes will be disseminated to voting Committee members for review and approval. Once approved, the minutes (which may be marked as confidential and non-public) will be disseminated to the Investment Committee (IC) Trustees, ASRS general investment consultant, and IA.

6. Governance Oversight

The ASRS general consultant will conduct an independent review, at least annually, of the process to determine compliance with the Policy and Appendix A, and that the investment recommendation is consistent with ASRS Strategic Asset Allocation Policy targets/ranges, House Views and, as applicable, investment programs' pacing and implementation plans. The general consultant will use the following information and resources to help make their determination: investment due diligence packet; Committee meeting minutes and motions and other presentation materials; general and specific market knowledge of the investment, and discussions with the Director, CIO, or Portfolio Managers.

If the general consultant does not believe that the Policy and Appendix are being followed, or that a prudent decision is being made, they shall contact any or all of the following parties: Board Chair; Investment Committee Chair; Chief Internal Auditor; Director.

As standard operating procedure, the CIO will keep the IC informed of the selection and termination decisions made regarding investment managers.

During each external audit, the external financial auditor will review this policy and conduct a sample process review or audit to determine possible omissions or violations, and report such omissions or violations to any or all of the following parties: Board Chair; Investment Committee Chair; Chief Internal Auditor; Director, and may include such findings in their monthly investment compliance report which resides in the Director's section of the Board packet.

7. Post-Investment Manager and Co-Investment Selection Monitoring

Public and private investment managers and co-investments are monitored by various functions performed by the CIO, IMD staff, ASRS custody bank, general consultant, staff extension consultants and other service providers and reported to the Asset Class Committees, IC and Board.

ASRS custody bank provides look-through Committee on Uniform Security Identification Procedures (CUSIP)-level capabilities for separate account public manager portfolios and generates various customizable reports on holdings, risk, and returns. IMD staff uses this and other information from a third-party research providers as the basis for staff's quarterly conference calls with the managers to review performance, attribution, and consistency of process and decision-making, and other matters related to firm personnel, Assets Under Management (AUM), and operations.

For private investments, ASRS external back-office provider calculates performance measurements as well as other services such as: document warehousing, administers ASRS approval capital calls and distributions, and various aggregate program and individual fund level reports. IMD staff may use this information in their calls, meetings, and correspondence with managers and their participation at limited partner advisory committees of which we are members. IMD staff also provides timely private market program information such as portfolio performance, portfolio news, detail fund activity and pacing activity to the Private Markets

Committee

With respect to ASRS Real Estate Strategic Manager program, staff extension consultants provide operational and an investment oversight functions that ensures that each proposed investment is in compliance with contracted investment criteria, i.e., investment type, underwriting, leverage, etc. and that, subsequent to purchase, investments are monitored on an ongoing basis.

On a quarterly basis, ASRS general consultant generates an investment performance reports containing information about both public and private managers. IMD staff and the general consultant provides asset class presentations to the Investment Committee which includes performance measurement relative to the mandate's benchmarks as well as select risk and return metrics relative to peers, and a qualitative review of the manager.

The due diligence packet will include sufficient information to ensure the manager has been properly vetted and enable the asset class committee to make an informed decision and include, but not be limited to the following information when relevant to the manager:

- 1. Organization**
 - a. History of the firm
 - b. Firm ownership
 - c. Office location(s)
 - d. Strategy offerings and capabilities
 - e. Staff allocated across and/or between strategies
 - f. Assets Under Management for the firm
- 2. Staff**
 - a. Team background/biographies
 - b. Organizational responsibilities
 - c. Operational capabilities
 - d. Technical resources
 - e. Key additions/subtractions to team
- 3. Strategy**
 - a. Description of investment strategy and/or philosophy
 - b. Idea sourcing resources
 - c. Research sources: in-house and external
 - d. Decision-making process
 - e. Staff allocated to the strategy
 - f. Asset under Management (AUM) for the strategy
 - g. Comparison with other strategies
- 4. Terms**
 - a. Fees
 - b. Fee structure
 - c. Vehicle structure
 - d. Benchmark definition
- 5. Performance**
 - a. Historical rates of return (public markets)
 - b. Multiples of invested capital return (private markets)
 - c. Internal rates of return (private markets)
 - d. Peer manager universe criteria
 - e. Comparative returns versus peers and/or prior funds
 - f. Historical quartile ranking analysis
- 6. Risk**
 - a. Investment Risk Management
 - i. Risk metrics

- ii. Portfolio limitations
 - iii. Portfolio characteristics
 - iv. Portfolio diversification
 - b. Operational Risk Management
 - i. Personnel turnover
 - ii. Information security
 - iii. Internal controls
 - iv. Regulatory oversight
 - v. Legal inquiries/investigations
- 7. Disclosures**
- a. Placement agents
 - b. Conflict of interest
- 8. Miscellaneous**
- a. Integration of strategy with other ASRS mandates
 - b. Strategic relationship role of manager with ASRS
 - c. Composition of current investors in the strategy
 - d. Analysis of competing managers and firms

As applicable, also assess public markets managers and public markets managers for:

Public Markets

1. Terms

- e. alpha and tracking error targets
- b. Most-favored nations clauses

2. Investment Risk

- a. Portfolio turnover
- b. Correlation to benchmark
- c. Correlation to peers
- d. Volatility of returns
- e. Risk adjusted return metrics

Private Markets

1. Terms:

- a. Investment time horizon and total fund term
- b. GP commitment
- c. Co-investment policy
- d. Key man provision
- e. No-fault termination
- f. Recall/recycle provisions

2. Operational risk:

- a. Legal structure
- b. Placement agent disclosures

- c. GP reference checks
- 3. Investment risk:**
 - a. Fund leverage
 - b. Portfolio company references
 - c. Fund Opportunity SWOT Analysis

Appendix II

For co-investments, whereby ASRS has the opportunity to participate in a pending investment to be made by the manager of a fund or account, the analysis and due diligence process will be as follows:

Debt Co-Investment Opportunities:

When evaluating debt co-investment opportunities, IMD staff and the Asset Class Committee will focus on portfolio and ASRS Total Fund construction considerations, while the merits of a particular investment will be determined by the investment manager of the fund. IMD staff will review a due diligence packet for the co-investment opportunity provided by the investment manager to determine its suitability with respect to portfolio and Total Fund considerations including but not limited to the following:

- The size of ASRS' commitment to the fund,
- The overall portfolio concentration (ex. industry, geographic etc.) of the fund,
- The fund's investment guidelines, and
- ASRS Total Fund considerations.

For suitable co-investment opportunities, IMD staff will prepare a memo summarizing its conclusions and submit it to the appropriate Asset Class Committee, along with the due diligence packet provided by the manager, to obtain approval.

Equity Co-Investment Opportunities:

Due to the higher risk associated with equity investments, equity co-investment opportunities require confirmatory due diligence by IMD staff and/or staff extension consultants. The primary due diligence will be performed by the financial sponsor. Staff or the extension consultant will perform additional diligence to confirm that appropriate diligence has been done by the sponsor and to confirm that the major results of the diligence reasonably support the investment thesis and metrics. The scope of such confirmatory diligence will be determined on a case by case basis by the CIO in consultation with the portfolio manager for the project.



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

MEMORANDUM

TO: Mr. Kevin McCarthy, Chair, Arizona State Retirement System (ASRS) Board

FROM: Mr. Paul Matson, Director
Mr. Patrick Klein, Assistant Director, External Affairs
Mr. Nick Ponder, Government Relations Officer

DATE: September 15, 2015

RE: **Agenda Item #7:** Presentation, Discussion and Appropriate Action Regarding ASRS Proposed Legislation for the 2016 Legislative Session

Purpose

Discussion of the 2016 ASRS legislative initiatives.

Recommendation

Recommend approval of the 2016 ASRS legislative initiatives.

Background

During the summer, the External Affairs Division (EAD) received legislative suggestions from ASRS staff and Trustees concerning federal statutory requirements; plan inefficiencies, inconsistencies, and inequities; administrative concerns; and others. The EAD researched and discussed each suggestion in conjunction with Trustees, Executive Management, and other internal staff. Staff first presented the legislative package at the September 11, 2015 External Affairs Committee (EAC) meeting. The EAC moved to recommend to the full Board approval of the legislative initiatives at its September 25, 2015 meeting. The EAC also discussed several changes to the member appeal process as a legislative initiative. Some discussion and recommendation may also take place concerning this initiative.

2016 LEGISLATIVE SUGGESTIONS

STATUTE: Session Law

PROPOSED BY: Chuck Whetstine, External Tax Counsel

PROPOSAL: In 2014 the legislature approved passage of HB2050 which removed the requirement that an employee be covered under a Social Security Administration Section 218 Agreement (paying into Social Security).

In the lead up to the legislation the ASRS identified four groups of individuals impacted by the 218 requirement in statute:

1. Those who were erroneously enrolled in ASRS and whose accounts remain in the system because the legislature requested a moratorium on removing them.
2. Those who were erroneously enrolled in ASRS and then removed from the ASRS upon discovery.
3. Those who were never enrolled in ASRS because the employer understood they did not qualify to participate, but who also were not participating in some other retirement plan.
4. Those who were enrolled in the § 38-955 defined contribution plan created in the 2013 legislative session.

Groups 2, 3, and 4 were satisfied with the passage of HB2050. However, the ASRS was required to submit a request to the IRS called a Voluntary Correction Program (VCP) asking they grandfather group one into ASRS. The ASRS received approval from the IRS and in accordance with that approval must get the following language in a session law:

SESSION LAW

CONSISTENT WITH THE COMPLIANCE STATEMENT ISSUED BY THE UNITED STATES INTERNAL REVENUE SERVICE, AN EMPLOYEE WHO IS EMPLOYED WITH AN ASRS EMPLOYER IN A POSITION EXEMPT FROM ASRS MEMBERSHIP BECAUSE THE POSITION WAS NOT INCLUDED IN AGREEMENTS PROVIDING FOR THE EMPLOYEE'S COVERAGE UNDER THE FEDERAL OLD AGE AND SURVIVORS INSURANCE SYSTEM, BUT ON WHOSE BEHALF THE EMPLOYER HAS REMITTED ASRS CONTRIBUTIONS SHALL RETAIN CREDITED SERVICE FOR THE PERIOD OF EMPLOYMENT FOR WHICH THE EMPLOYER REMITTED ASRS CONTRIBUTIONS ON THE EMPLOYEE'S BEHALF.

2016 LEGISLATIVE SUGGESTIONS

STATUTE: 38-797.10

PROPOSED BY: Jothi Beljan, Assistant Attorney General

PROPOSAL: Exempt the ASRS from “bad faith” claims as they relate to our long term disability (LTD) program. ERISA plans are protected from bad faith claims and, because we use ERISA as guidance for our plan in many circumstances, we would like a similar protection.

Last year the ASRS realized and volunteered to the legislature that our initial language provided greater protections than ERISA and that was not our intent. We modified our proposed language to the language that is found below. Additionally, some in the legislature believed this language would violate the anti-abrogation clause in the Arizona Constitution (Article 18, Section 6).

In response to this concern the ASRS provided some analysis from an outside attorney who wrote:

“...because ASRS is a governmental body and any entitlement to benefits is created by statute, the real issue is whether a claim against a state agency is covered by the anti-abrogation clause, especially when the liability at issue is created by statute. As a state agency the Clouse and Dickey decisions provide strong support (although not unanimous) for concluding that a statute limiting bad faith claims against ASRS will not violate the anti-abrogation clause. Adding further support is the fact that any liability for benefits is created by statute, not the common law.”

The ASRS has provided this analysis to Representative Fann (the 2015 sponsor of HB2340) and Legislative Council and we are awaiting, currently, an opinion from Legislative Council.

38-797.10. Assurances and liabilities

F. THIS ARTICLE DOES NOT PROVIDE ANY PRIVATE RIGHT OR CAUSE OF ACTION TO OR ON BEHALF OF ANY MEMBER OR EMPLOYER, AND THERE IS NO LIABILITY ON THE PART OF ASRS, THE BOARD, ANY MEMBER OF THE BOARD OR ANY AGENT OR EMPLOYEE OF ASRS OR THE BOARD, FOR ANY ACTION TAKEN IN THE PERFORMANCE OF THEIR POWERS AND DUTIES PURSUANT TO THIS ARTICLE UNLESS THE ACTION WAS INTENDED TO CAUSE INJURY OR WAS GROSSLY NEGLIGENT.

2016 LEGISLATIVE SUGGESTIONS

STATUTE: 41-1005

PROPOSED BY: Assistant Attorney General

PROPOSAL: Statute allows 32 current exceptions from rulemaking. However, the ASRS is not specifically named in the list of exceptions. Specifically, Article XXIX of the Arizona Constitution reads:

ARTICLE XXIX

1. Public retirement systems

Section 1. A. Public retirement systems shall be funded with contributions and investment earnings using actuarial methods and assumptions that are consistent with generally accepted actuarial standards.

B. The assets of public retirement systems, including investment earnings and contributions, are separate and independent trust funds and shall be invested, administered and distributed as determined by law solely in the interests of the members and beneficiaries of the public retirement systems.

C. Membership in a public retirement system is a contractual relationship that is subject to article II, section 25, and public retirement system benefits shall not be diminished or impaired.

It is our belief based on the underlined language above that the rulemaking process is not the proper forum for actuarial, investment, and accounting related decisions and consequently the ASRS believes it is unnecessary to have rules for these particular items. However, in being consistent with our beliefs the ASRS would like to have that language codified in statute.

41-1005

A. This chapter does not apply to any:

33. RULE THAT RELATES TO ACTUARIAL, INVESTMENT, AND ACCOUNTING ASSUMPTIONS BY THE ARIZONA STATE RETIREMENT SYSTEM.

The ASRS would like to include a Statement of Purposes to articulate our belief the ASRS always had an exemption for these certain issues. Below is an example of a Statement of Purpose regarding the Arizona Procurement Code.

Purpose

Laws 1984, Ch. 251, 1 and 40 provide:

Section 1 Purpose

The purposes of this act are to:

- 1. Simplify, clarify and modernize the law governing procurement by the state.*
- 2. Permit the continued development of procurement policies and practices.*
- 3. Make as consistent as possible the procurement laws among various state agencies.*

2016 LEGISLATIVE SUGGESTIONS

- 4. Provide for increased public confidence in the procedures followed in public procurement.*
- 5. Ensure the fair and equitable treatment of all persons who deal with the procurement system of this state.*
- 6. Provide increased economy in state procurement activities and maximize to the fullest extent practicable in purchasing value of public monies of this state.*
- 7. Foster effective broad-based competition within the free enterprise system.*
- 8. Provide safeguards for the maintenance of a procurement system of quality and integrity.*

The ASRS will work with legal and Legislative Council to draft a statement of purpose consistent with Article XXIX of the Arizona Constitution and the belief actuarial, investment and certain financial decisions are and have been exempt from the rule making process.

DRAFT

STATUTE: 38-738(A)

PROPOSED BY: Assistant Attorney General

PROPOSAL: To codify in statute current practice as it relates to employer credits under A.R.S. 38-738. Currently the statute indicates that employers are permitted to take a credit within one year of the overpaid contributions. However, the ASRS allows these credits into perpetuity so long as there are employer monies still on account. Additionally, the statute indicates that the ASRS will charge interest on these credits if the ASRS does not meet the 8% return. However, we do not charge interest in these scenarios.

38-738. Adjustment and refund

A. If more than the correct amount of employer or member contributions is paid into ASRS by an employer through a mistake of fact, ASRS shall return those contributions to the employer if the employer requests return of the contributions **VIA AN EMPLOYER CREDIT, OR WITHIN ONE YEAR OF THE DATE OF THE OVERPAYMENT A CHECK UPON REQUEST OF THE EMPLOYER. IF MORE THAN THE CORRECT AMOUNT OF EMPLOYER OR MEMBER CONTRIBUTIONS IS PAID INTO ASRS BY AN EMPLOYER THROUGH A MISTAKE OF LAW, ASRS SHALL RETURN THOSE CONTRIBUTIONS TO THE EMPLOYER IF THE EMPLOYER REQUESTS RETURN OF THE CONTRIBUTIONS VIA AN EMPLOYER CREDIT.** ~~within one year after the date of overpayment. ASRS shall not pay an employer earnings attributable to excess contributions but shall reduce the amount returned to an employer pursuant to this section by the amount of losses attributable to the excess contributions.~~

STATUTE: 38-738(B)

PROPOSED BY: Assistant Attorney General

PROPOSAL: To clarify that members who are inactive, retired, or on long term disability can only purchase CNW service with an after tax check. Currently, the statute just refers to “members” as one group and suggests they can purchase service pursuant to 38-747 which would include rollovers and payroll deduction agreements.

38-738. Adjustment and refund

B. If less than the correct amount of employer or member contributions is paid into ASRS by an employer, the following apply:

1. The member shall pay an amount that is equal to the amount that would have been paid in member contributions for the period in question. ~~The~~ FOR ACTIVE members, payments shall be made as provided in section 38-747. FOR MEMBER'S WHO ARE INACTIVE, RETIRED, OR ON LONG TERM DISABILITY, PAYMENTS MUST BE MADE WITH AN AFTER TAX CHECK. If the member does not make the payment within ninety days of being notified by ASRS that the employer has paid all amounts due from the employer, the unpaid amount accrues interest until the amount is paid in full. The member is responsible for payment of the unpaid amount and interest. The interest rate is the interest rate assumption that is approved by the board for actuarial equivalency for the period in question to the date payment is received.

2016 LEGISLATIVE SUGGESTIONS

STATUTE: 38-742(B)

PROPOSED BY: Jessica Ross

PROPOSAL: To clarify any potential confusion in our reinstatement statute regarding the purchase of forfeited service. Currently the statute indicates a member must repay what was received in a refund, plus interest, in order to receive service credit for that period. However, there is potential for confusion in that under a DRO, an ex-spouse may receive a portion of the member's benefit that was assigned to the ex-spouse. One could argue that the statute only suggests the member repay what the member had received and not the total amount paid, and would receive full service credit once that amount was repaid.

38-742. Reinstatement

B. Notwithstanding subsection A of this section, the member may redeposit the amount of the contributions ~~the member received~~ **THE ASRS PAID** at the time of the member's separation from service, with interest on that amount to the date of redeposit at the interest rate assumption approved by the board for actuarial equivalency. On satisfaction of this obligation, the member's service credits acquired by the previous employment shall be reinstated. The member is subject to the benefits and duties in effect at the time of the member's most recent reemployment except as provided in section 38-711, paragraph 5, subdivision (a). If a member redeposits less than the amount required under this subsection, ASRS shall proportionately reduce the member's reinstated service credits.

2016 LEGISLATIVE SUGGESTIONS

STATUTE: 38-714(E)

PROPOSED BY: Agency

PROPOSAL: To consider modifications to the appeals process with an emphasis being placed on what represents best practice for the Board as well as an enhanced process for the appellant.

- A. Establish an Appeals Board that would hear these cases separate from the full board.
 - 1. Assistant Director Appeal
 - 2. Deputy Director Appeal
 - 3. Office of Administrative Hearings
 - 4. Appeals Board final determination
 - 5. Superior Court

- B. Eliminate the administrative appeals process and Board participation
 - 1. Assistant Director Appeal
 - 2. Deputy Director Appeal
 - 3. Superior Court

- C. Establish a Committee of the Board with authority granted in statute to take legal action on appeals
 - 1. Assistant Director Appeal
 - 2. Deputy Director Appeal
 - 3. Office of Administrative Hearings
 - 4. Committee of the Board final determination
 - 5. Superior Court

1 actuarial present value under ASRS to transfer .950 years of service from CORP
2 to ASRS was the sum of \$4,370.32, with the actuarial present value of the CORP
3 service as \$3,253.00, and the cost to Mr. Merritt as being \$1,117.32.²

4 4. The service purchase transfer invoice included the computation sheet
5 from CORP which provided that the numbers set forth in the CORP were good
6 through July 31, 2008.³

7 5. Mr. Merritt did not pay the \$1,117.32, because he disagreed with the
8 .950 years of service credit from CORP.⁴

9 6. On or about January 14, 2015, Mr. Merritt filed another request to
10 transfer his service credit in CORP to ASRS.⁵

11 7. On September 10, 2014, ASRS issued a service purchase transfer
12 invoice to Appellant for the cost to transfer credited service of .97 years of service
13 from CORP to ASRS. The September 10, 2014 service purchase invoice
14 provided that the actuarial present value under ASRS to transfer .97 years of
15 service from CORP to ASRS was the sum of \$6,993.94, with the actuarial
16 present value of the CORP service as \$2,693.00, and the cost to Mr. Merritt as
17 being \$4,300.94.⁶

18 8. Mr. Merritt did not pay the \$4,300.94, because he disagreed with the
19 .97 years of service credit from CORP and because he did not agree with the
20 cost of \$4,300.94.

21 9. On or about January 20, 2015, Mr. Merritt placed another request to
22 transfer his service from CORP to ASRS.⁷

23 10. On February 3, 2015, ASRS issued another service purchase invoice
24 for .950 years of service in the amount of \$7,863.19, with the actuarial present
25 value of the CORP service as \$2,351.00, and the cost to Mr. Merritt as being
26

27 ² See Exhibit E (5/27/08 Service Purchase Transfer Invoice).

28 ³ See Exhibit C (5/2/08 CORP Calculation).

29 ⁴ See Exhibit F (6/16/08 Email).

30 ⁵ See Exhibit G (8/8/14 Application)

⁶ See Exhibit J (9/10/14 Service Purchase Transfer Invoice).

⁷ See Exhibit L (1/14/15 Application).

1 \$5,512.19. The due date stated on the invoice for this purchase was April 13,
2 2015.⁸

3 11. Mr. Merritt did not remit any payment to ASRS by the April 13, 2015
4 due date because he disagreed with the .95 years of service credit from CORP
5 and because he did not agree with the cost of \$5,512.19.

6 12. On or about March 4, 2015, ASRS received corrected information
7 from CORP regarding Mr. Merritt's service credit in CORP.⁹

8 13. On March 6, 2015, ASRS issued another service purchase invoice to
9 Mr. Merritt in the amount of \$9,661.10 for 1.18 years of service credit, with the
10 actuarial present value of the CORP service as \$2,351.00, and the cost to Mr.
11 Merritt as being \$7,310.10.

12 14. The due date on this invoice was June 2, 2015. Mr. Merritt did not
13 pay the March 6, 2015 invoice by the June 2, 2015 due date.

14 15. On or about April 17, 2015, Mr. Merritt filed an "Appeal Letter" with
15 ASRS.¹⁰

16 16. On April 28, 2015, the Assistant Director of ASRS' Member Services
17 Division issued a letter denying Appellant's request.¹¹

18 17. Mr. Merritt disagreed with the ASRS' decision and filed a Formal
19 Appeal Letter with ASRS.

20 18. ASRS referred the matter to the Office of Administrative Hearings, an
21 independent agency, for an evidentiary hearing, which was held on July 8, 2015,
22 at 8:00 a.m.

23 19. Mr. Merritt testified on his own behalf. ASRS presented the testimony
24 of its employee, Jenna Orozco, Management Analyst for ASRS, and David
25 Kershner, an independent actuary.

26 **Testimony**

27
28
29 ⁸ See Exhibit O (2/3/15 Service Purchase Transfer Invoice).

⁹ See Exhibit P (3/4/15 Calculation from CORP).

¹⁰ See Exhibit T (4/17/15 Email).

¹¹ See Exhibit U (4/28/15 ASRS Letter).

1 20. Mr. Merritt testified that on or about May 27, 2008, he received a
2 service purchase transfer invoice from ASRS that stated that the member's cost
3 to transfer credited service of .950 years of service from CORP to ASRS was the
4 sum \$1,117.00.¹² Mr. Merritt disagreed with the amount of CORP service that he
5 was being credited for and exchanged several emails with ASRS.

6 21. Mr. Merritt said that on or about September 10, 2014, he received a
7 second service purchase transfer invoice from ASRS that stated that the
8 member's cost to transfer credited service from CORP to ASRS for .97 years of
9 credited service was now \$4,300.94. Mr. Merritt said that he then sent ASRS a
10 check for the original amount of \$1,117.00, which was rejected by ASRS. Mr.
11 Merritt said that there was no due date on the May, 2008 service purchase
12 transfer letter. Mr. Merritt asserted that he was informed by ASRS that an
13 inactive member of ASRS could not transfer service credit.

14 22. Mr. Merritt testified that he had difficulty having a dialogue with ASRS.
15 Mr. Merritt asserted that he had never been able to obtain specific calculations
16 from ASRS. Mr. Merritt testified that he should have his additional time credited
17 from CORP calculated at the same rate as set forth in the May 27, 2008 service
18 purchase transfer statement from ASRS. Mr. Merritt acknowledged that he did
19 not send the amount set forth in the May 27, 2008 letter within 90 days.

20 23. Mr. Merritt acknowledged that the 1.18 years of service credit from
21 CORP in the March 6, 2015 service purchase invoice is correct. Mr. Merritt
22 asserted that ASRS was using the wrong salary in its calculations. Mr. Merritt
23 said that ASRS was using a salary in excess of his contract with the school
24 system.

25 24. Jenna Orozco (hereinafter "Ms. Orozco"), a Member Advocate for
26 ASRS, testified that a service purchase transfer is when a member of ASRS has
27 time in another State retirement system and elects to transfer that time to ASRS.
28 Ms. Orozco stated that the cost of a service purchase transfer is based on the
29 actual present value of the transfer, which takes into account a number of

30

¹² See Complainant's Exhibit 1 (5/27/08 ASRS transfer information).

1 calculations, including the member's current age, salary and amount of service at
2 time of transfer. Ms. Orozco acknowledged that Mr. Merritt made his first request
3 to ASRS to transfer his service from CORP on April 25, 2008.

4 25. Ms. Orozco testified that an inactive member could transfer service
5 credit. Ms. Orozco said that she personally had checked Mr. Merritt's records
6 with ASRS and that there was no documentation that any ASRS staff member
7 had instructed Mr. Merritt that he could not complete his requested service credit
8 transfer because he was not a contributing member of ASRS.

9 26. Ms. Orozco testified that the cost calculation is performed by the
10 ASRS Financial Services Division using actuarial tables that are provided to
11 ASRS by an actuary service.

12 27. Ms. Orozco testified that the last line of the May 27, 2008 service
13 purchase transfer letter provided that the above numbers were good through July
14 31, 2008. Ms. Orozco stated that Mr. Merritt did not submit the sum of \$1,117.00
15 to transfer .950 years of credited service from CORP to ASRS by July 31, 2008.

16 28. Ms. Orozco testified the Mr. Merritt's service time was increased from
17 .950 to 1.18 years because of new information provided by CORP. Ms. Orozco
18 stated that ASRS was not a party to Appellant's 1998/1999 grievance with the
19 Arizona Department of Corrections and had no knowledge of the settlement
20 agreement. Ms. Orozco said that Mr. Merritt did not ask ASRS to assist him in
21 correcting his service credit directly with CORP. Ms. Orozco said that Mr. Merritt
22 was repeatedly told that he needed to contact CORP in regards to correcting his
23 service credit for the requested transfer.

24 29. Ms. Orozco testified that one of the reasons that Mr. Merritt's
25 individual cost for purchasing service credit kept going up was because Mr.
26 Merritt was getting older. Ms. Orozco said that the individual cost is higher
27 because the retirement system has fewer years to invest those funds and earn a
28 return on them and because ASRS would have to pay benefits sooner.

1 30. Ms. Orozco testified that ASRS cannot base Mr. Merritt's transfer cost
2 from CORP based on Mr. Merritt's 2008 request because that cost has expired
3 and is no longer valid.

4 31. Ms. Orozco's testimony is found to be credible.

5 32. David Kershner (hereinafter "Mr. Kershner") testified that he is an
6 actuary and a Fellow of the Society of Actuaries, a member of the American
7 Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries.
8 Mr. Kershner stated that he had worked as an actuary since 1984 and that his
9 current employer was Buck Consultants. Mr. Kershner said that he is a principal
10 and consulting actuary for Buck Consultants. Mr. Kershner said that ASRS is a
11 client of Buck Consultants.

12 33. Mr. Kershner testified that Buck Consultants performs annual actuarial
13 evaluations to help determine the contribution rates that employers and members
14 have to contribute in the upcoming year. Buck Consultants provides ASRS with
15 multiyear projections of funding status and contributions under different economic
16 scenarios. Mr. Kershner said that Buck Consultants has been providing actuarial
17 services to ASRS since 2001.

18 34. Mr. Kershner testified that a service purchase transfer involves the
19 transfer of an individual's retirement service credits from one state retirement
20 system to another. Mr. Kershner said that A.R.S. §§ 38-921 and 38-922 outline
21 the requirements and how the calculations for a service purchase transfer are to
22 be performed. Mr. Kershner stated that essentially, ASRS is trying to determine
23 the increase in the present value of the projected benefit that is going to be paid
24 from ASRS due to the additional service time being transferred into ASRS.

25 35. Mr. Kershner testified that the present value of a service purchase
26 transfer depends on a number of factors, including the person's age, the salary
27 that is being used, the number of years of service that are being transferred, and
28 the actuarial assumptions that are used for that calculation. Mr. Kershner said
29 that ASRS assumes that it will earn 8 percent investment returns annually. Mr.
30 Kershner said that ultimately, contribution rates for the employers and members

1 are adjusted on an ongoing basis according to how the assets have performed in
2 the most recent year.

3 36. Mr. Kershner testified that in 2008, Mr. Merritt was approximately 52
4 years old and that the requested transfer was for .95 years with a salary of
5 \$33,917.00. Mr. Kershner stated that these variables, age, time, and salary, are
6 then input into an Excel spreadsheet to calculate the present value factor to
7 provide the additional time of service. Mr. Kershner said that value was
8 approximately .1288. That is multiplied by Mr. Merritt's salary to determine the
9 dollar amount that needs to be transferred. Mr. Kershner said that the amount of
10 \$4,370.32 was the appropriate amount in 2008.

11 37. Mr. Kershner testified that by 2015, all of the variables had changed.
12 Mr. Kershner stated that the primary difference was Mr. Merritt was seven (7)
13 years older and closer to the time when the benefit would be paid. Mr. Kershner
14 said that the service time being transferred was increased from .95 to 1.18 years
15 and that Mr. Merritt's salary was higher in 2015. Mr. Kershner said that all of the
16 above factors contributed to the increase in the cost of the requested service
17 transfer.

18 38. Mr. Kershner testified that Buck Consultants provides the actuarial
19 tables that ASRS uses to perform such calculations. Mr. Kershner stated that the
20 original calculation for the cost of the requested service transfer was based on
21 actuarial assumptions that were in use in 2008. Mr. Kershner said that the
22 actuarial assumptions utilized in 2015 were different from the actuarial
23 assumptions utilized in 2008.

24 39. Mr. Kershner testified that he had personally reviewed the cost
25 invoices that ASRS issued to Mr. Merritt in this matter. Mr. Kershner stated that
26 it was his professional opinion that the ASRS invoices charged the actuarially
27 necessary amount to fund associated future benefits in 2008 and 2015.

28 40. Mr. Kershner testified that there is a calculation for every age and that
29 when an individual requests ASRS to calculate the cost to transfer service, the
30

1 cost depends on the individual's age, time of service to be transferred, and
2 salary.

3 41. Mr. Kershner's testimony is found to be credible.

4 **CONCLUSIONS OF LAW**

5 1. Mr. Merritt bears the burden of proving by a preponderance of the evidence
6 that grounds do not exist to justify the ASRS' application of A.R.S. §§ 38-921 and 38-
7 922, that its determination that it could not base the cost to transfer-in the entirety of
8 Mr. Merritt's service credit under CORP using the expired May 2008 request date was
9 incorrect, and that ASRS should not determine the cost to transfer-in Mr. Merritt's
10 service credit based on Mr. Merritt's current age, years of service, and salary.¹³

11 2. "A preponderance of the evidence is such proof as convinces the trier of fact
12 that the contention is more probably true than not."¹⁴ A preponderance of the evidence
13 is "evidence which is of greater weight or more convincing than evidence which is
14 offered in opposition to it; that is, evidence which as a whole shows that the fact sought
15 to be proved is more probable than not."¹⁵

16 3. A.R.S. § 38-921 provides as follows:

17 Transfer of retirement service credits from one retirement system
18 or plan to another retirement system or plan in this state;
19 definitions

20 A. An active or inactive member of a state retirement system or
21 plan, including the retirement system provided for in article 2 of
22 this chapter, the elected officials' retirement plan provided for in
23 article 3 of this chapter, the public safety personnel retirement
24 system provided for in article 4 of this chapter or the corrections
25 officer retirement plan provided for in article 6 of this chapter,
may transfer service credits from one system or plan to the
member's current or former system or plan pursuant to section
38-922 if all of the following conditions are met:

26 1. The board governing the retirement system or plan from which
27 the service credits are being transferred mutually agrees with the

28
29 ¹³ See A.R.S. § 41-1092.07(G)(3); A.A.C. R2-19-119; see also *Vazanno v. Superior Court*, 74 Ariz. 369,
249 P.2d 837 (1952).

30 ¹⁴ Morris K. Udall, ARIZONA LAW OF EVIDENCE § 5 (1960).

¹⁵ BLACK'S LAW DICTIONARY 1182 (6th ed. 1990).

1 board governing the retirement system or plan to which the
2 service credits are being transferred regarding the terms of the
3 transfer.

4 2. The transfer does not cause either the retirement system or
5 plan to which the transfer is made or the retirement system or
6 plan from which the transfer is made to incur any unfunded
7 accrued liabilities as a result of the transfer.

8 3. The member initiates the transfer by making written application
9 to the governing board of the retirement system or plan to which
10 the member is contributing.

11 B. For the purposes of this section:

12 1. "Active member" means a member who satisfies the eligibility
13 criteria of the state retirement system or plan and who is currently
14 making member contributions to or receiving credited service from
15 the state retirement system or plan.

16 2. "Inactive member" means a member of the state retirement
17 system or plan who previously made contributions to the state
18 retirement system or plan and who satisfies each of the following:

19 (a) Has not retired.

20 (b) Is not eligible for active membership in the state retirement
21 system or plan.

22 (c) Is not currently making contributions to the state retirement
23 system or plan.

24 (d) Has not withdrawn contributions from the state retirement
25 system or plan.

26 3. A.R.S. § 38-922 provides as follows:

27 Transfer or redemption of service credits

28 C. Service credits qualified in accordance with section 38-730 or
29 38-921 may be transferred or redeemed in accordance with this
30 section.

1 D. In the case of a member whose contributions remain on
2 deposit with the prior retirement system or plan, the following
3 shall be calculated:

4 1. The prior system or plan shall calculate the amount equal to
5 the actuarial present value of a member's projected benefits to
6 the extent funded on a market value basis as of the most recent
7 actuarial valuation under the prior system or plan as calculated by
8 that system's or plan's actuary using the same actuarial method
9 and assumptions used in calculating that system's or plan's
10 funding requirements based on the transferring member's service
11 credits at the time of transfer. If a system's or plan's market value
12 is greater than one hundred per cent, the system or plan shall use
13 a one hundred per cent market value.

14 2. The system or plan to which the member is transferring shall
15 calculate the increase in the actuarial present value of the
16 projected benefits provided as a result of the transfer of the
17 member's service credits. This calculation shall be performed by
18 that system's or plan's actuary using the same actuarial method
19 and assumptions used in calculating that system's or plan's
20 funding requirements based on the transferring member's service
21 credits at the time of transfer.

22 C. In the event a member decides to transfer:

23 1. If the amount calculated in subsection B, paragraph 2 is
24 greater than the amount calculated in subsection B, paragraph 1:

25 (a) The prior system or plan shall transfer to the present system
26 or plan the greater of the amount calculated in subsection B,
27 paragraph 1 or the member's accumulated contribution account
28 balance.

29 (b) If the amount transferred is less than the amount calculated
30 under subsection B, paragraph 2, the transferring member shall
elect either to pay the difference or to accept a reduced transfer
of service credits. If the member elects to pay the difference, the
amount paid shall be added to the member's accumulated
contribution account balance. If the member elects to accept a
reduced transfer of service credits, the amount of service credits
transferred shall be equal to the amount of service credits used in
making the calculation under subsection B, paragraph 1
multiplied by the ratio of the amount calculated under subsection

1 B, paragraph 1 to the amount calculated under subsection B,
2 paragraph 2.

3 2. If the amount calculated in subsection B, paragraph 2 is less
4 than or equal to the amount calculated in subsection B,
5 paragraph 1, the prior system or plan shall transfer to the present
6 system or plan the greater of the amount calculated in subsection
7 B, paragraph 2 or the member's accumulated contribution account
8 balance.

9 D. In the case of an applicant who has withdrawn the applicant's
10 member contributions from another prior system or plan of this
11 state, the applicant shall pay into the new system or plan to which
12 the applicant is transferring an amount equal to the increase in
13 the actuarial present value of the projected benefits provided by
14 the service credits being redeemed and this amount shall be
15 included in the member's current accumulated contribution
16 account balance. This calculation shall be performed by the
17 actuary of the system or plan to which the service credits are
18 being transferred using the same actuarial method and
19 assumptions used in calculating that system's or plan's funding
20 requirements.

21 E. Service credits shall not be applied to the applicant's account
22 until such time as complete payment is made to the retirement
23 system or plan to which the applicant is transferring. On
24 completion of the transfer provided for in this article, the
25 member's rights in the retirement system or plan from which the
26 member is transferring are extinguished.

27 F. A member electing to transfer to or redeem service with the
28 public safety personnel retirement system, the elected officials'
29 retirement plan or the corrections officer retirement plan pursuant
30 to this section may pay for the service being transferred or
redeemed in the form of a lump sum payment to the system or
plan, a trustee-to-trustee transfer or a direct rollover of an eligible
distribution from a plan described in section 402(c)(8)(B)(iii), (iv),
(v) or (vi) of the internal revenue code or a rollover of an eligible
distribution from an individual retirement account or annuity
described in section 408(a) or (b) of the internal revenue code.

4. Credible testimony and evidence established that ASRS cannot base the
cost to transfer-in the entirety of Mr. Merritt's service credit under CORP using the
expired May 2008 request date and that ASRS must determine the cost to transfer-in

1 Mr. Merritt's service credit based on his current age, years of service, and salary. Mr.
2 Kershner credibly opined that the ASRS invoices charged the actuarially necessary
3 amount to the fund for associated future benefits in 2008 and 2015. The Administrative
4 Law Judge concludes that the weight of the evidence established that ASRS properly
5 applied the provisions of A.R.S. § 38-921 and A.R.S. § 38-922 and that applicable
6 provisions of A.R.S. § 38-921 and A.R.S. § 38-922 prevent ASRS from basing the cost
7 to transfer Mr. Merritt's service credits from CORP on the original 2008 invoice date,
8 rather than the 2015 invoice date. Therefore, Appellant has not sustained his burden
9 to establish by a preponderance of the evidence that A.R.S. §§ 38-921 and 38-922
10 allow ASRS to determine the cost to transfer-in the entirety of Mr. Merritt's service
11 credit under CORP using the expired May 2008 request date or that these statutes do
12 not require that ASRS to determine the cost to transfer-in Mr. Merritt's service credit
13 based on Mr. Merritt's current age, years of service, and salary. Appellant has not
14 established that ASRS' actions were unjustified, improper or wrongful.

15 **RECOMMENDED ORDER**

16 Based on the foregoing, it is recommended that the ASRS Board affirm its denial
17 of Appellant's appeal.

18 *In the event of certification of the Administrative Law Judge Decision by the*
19 *Director of the Office of Administrative Hearings, the effective date of the Order will be*
20 *five (5) days from the date of that certification.*

21 Done this day, August 4, 2015.

22 /s/ M. Douglas
23 Administrative Law Judge

24 Transmitted electronically to:

25 Paul Matson, Director
26 Arizona State Retirement System
27
28
29
30



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

MEMORANDUM

TO: Mr. Kevin McCarthy, Chair, Arizona State Retirement System ("ASRS") Board

FROM: Mr. Paul Matson, Director
Ms. Jothi Beljan, Assistant Attorney General

DATE: September 11, 2015

RE: **Agenda Item #8:** Approval, Modification, or Rejection of Recommended Administrative Law Judge's Decision Regarding Robert Merritt's Appeal to Transfer Corrections Officer Retirement Plan Service Credit to the ASRS Based on a May 2008 Cost Calculation

Purpose

To approve, modify or reject the Administrative Law Judge's ruling to uphold the Director's determination denying Robert Merritt the ability to purchase service credit in the ASRS based on an expired May 2008 cost invoice.

Applicable Law

The ASRS issued a transfer cost invoice to Robert Merritt to purchase his 1.18 years of service credit in the Arizona Corrections Officer Retirement Plan ("CORP") consistent with A.R.S. §§ 38-921 and -922.

Facts of the Case

- A. Robert Merritt became an ASRS member on November 28, 1998 when he began employment with Yuma County. Mr. Merritt became an inactive ASRS member when he ceased ASRS covered employment on October 27, 2001. Mr. Merritt returned to actively contributing ASRS status in August 2014 when he began employment with Coolidge Unified School District.
- B. Pursuant to A.R.S. §§ 38-921 and -922, Mr. Merritt requested to transfer his service credit in CORP to the ASRS on April 25, 2008. The ASRS issued a service purchase invoice dated May 27, 2008 for .950 years of service in the amount of \$4,370.32. The due date stated on the invoice for this purchase was July 31, 2008. Mr. Merritt did not remit any payment to the ASRS by the July 31, 2008 due date.
- C. On January 20, 2015, Mr. Merritt placed a request to transfer his service from CORP to the ASRS. On March 4, 2015, the ASRS received corrected information from CORP regarding Mr. Merritt's service credit in CORP. The ASRS issued an invoice dated March 6, 2015 in the amount of \$9,661.10 for 1.18 years of service credit. The due date stated on this invoice is June 2, 2015.

- D. Effective August 3, 2015, Mr. Merritt has four years of earned credited service in the ASRS and has not purchased or transferred any of his eligible CORP service credit from CORP to the ASRS.
- E. In 2015, Mr. Merritt requested that he be permitted to purchase his CORP service credit based on the lower actuarial cost invoice issued in May 2008. In a letter dated April 28, 2015, the ASRS issued a Director Decision denying Mr. Merritt's request.
- F. In his Recommended Decision dated August 4, 2015, Administrative Law Judge Mike Douglas upheld the ASRS Director's determination and denied Robert Merritt's appeal.

ASRS Recommended Motion

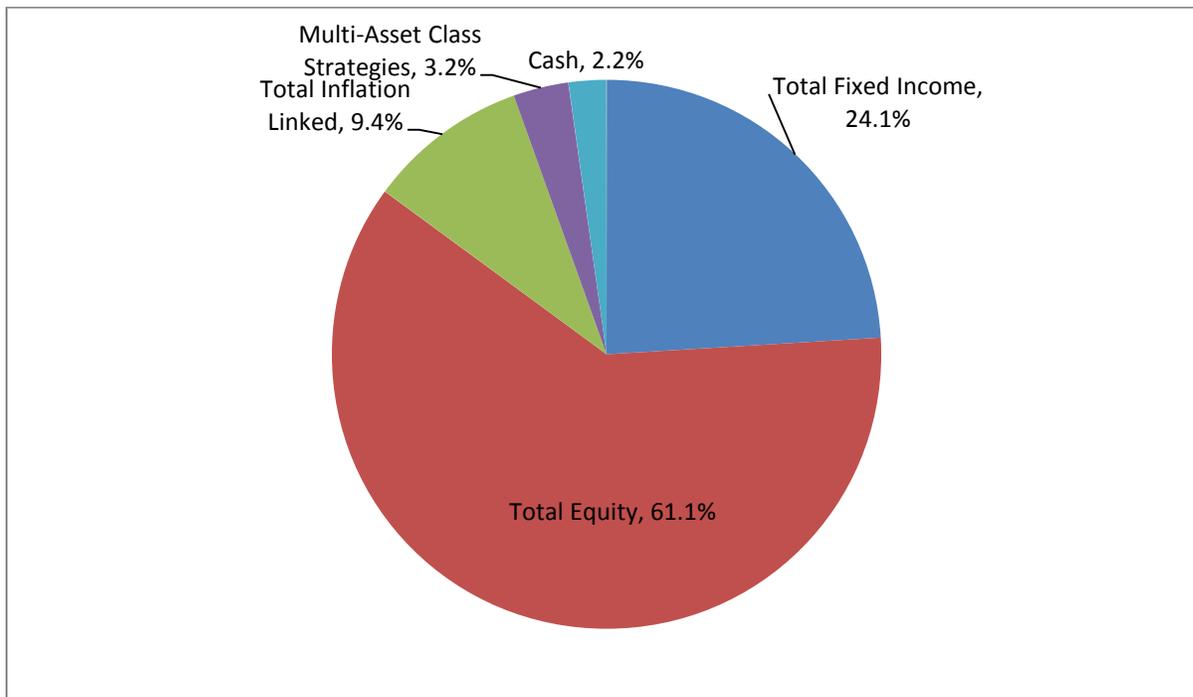
The ASRS staff agrees with the Administrative Law Judge's Decision but is recommending that the Board modify the Decision to make technical legal and factual corrections.

The ASRS Board modifies the Recommended Decision:

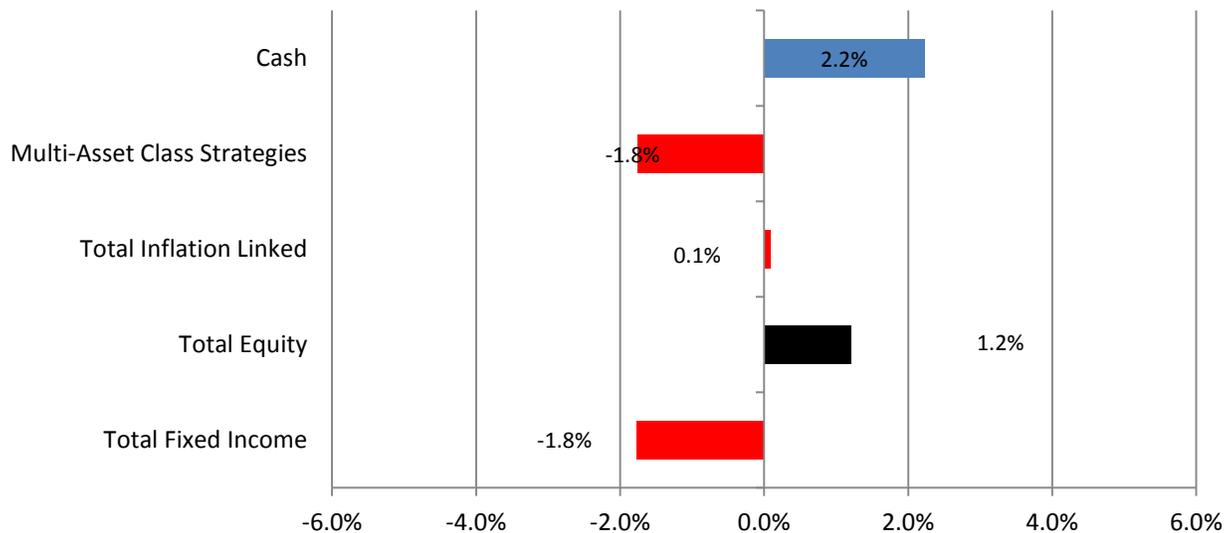
- a) to replace the phrase "Corrections Officers' Retirement Program" with the phrase "Corrections Officer Retirement Plan" in Finding of Fact No. 1 because A.R.S. § 38-882 establishes the Corrections *Officer Retirement Plan*.
- b) to replace the date "January 14, 2015" with the date "August 8, 2014" in Finding of Fact No. 6 based on ASRS Exhibit G referenced in the Recommended Decision, footnote 5.
- c) to correct the typographical errors in Conclusion of Law No. 3 mislabeling A.R.S. § 38-922 paragraph A as C and mislabeling paragraph B as D with the correct statutory paragraphs in A.R.S. § 38-922.

TOTAL FUND POSITIONING – 8/31/2015

ACTUAL PORTFOLIO



ACTUAL PORTFOLIO (ACTUAL ALLOCATION VS. INTERIM SAA POLICY *)



*Real Estate and Private Equity actual weight is equal to policy weight during the implementation of the asset class.

*Over/Underweights include both GTAA positions as well as IMD tactical considerations.

Note: Opportunistic & Private Debt, Opportunistic Private Equity, Farmland & Timber, Real Estate and Private Equity market values are reported on a quarter-lag and adjusted to include the current quarter's cash flows. Within the Assumed GTAA Allocation vs. Adjusted SAA Policy chart, Real Estate was prorated to domestic equity, international equity and fixed income. Private Equity was prorated to domestic equity.

| Account Manager | Account Manager Style | Fixed Income | | Equity | | Inflation Linked | Multi-Asset | Total | Pct of Fund |
|-------------------------------|--|-----------------|-----------------|-----------------|------------------|------------------|-----------------|--|-------------------|
| | | Active | Enh/Passive | Active | Enh/Passive | | | | |
| State Street B&T: Boston | Tactical Cash (non-assetized) | | | | | | | 0 | 0.00% |
| | | | | | | | | Tactical Cash Policy Range: 0% - 3% | 0.00% |
| | Operating Cash (non-assetized) | | 29,619,405 | | | | | 29,619,405 | 0.09% |
| | Operating Cash (assetized) | | 322,059,725 | | | | | 322,059,725 | 0.96% |
| | ASRS Transition | | 397,544,211 | | | | | 397,544,211 | 1.18% |
| | Cash Total | | | | | | | \$749,223,341 | 2.23% |
| | | | | | | | | Cash Policy: 0% | 0.00% |
| Blackrock: San Francisco | Treasuries (Long Duration) | | 387,500,000 | | | | | 387,500,000 | 1.15% |
| | Treasuries (Long Duration) Total | | | | | | | \$387,500,000 | 1.15% |
| | | | | | | | | Treasuries (Long Duration) Policy Range: 0% - 10% | 0.00% |
| Blackrock: San Francisco | Passive (Intermediate Gov Credit) | | 24,391,103 | | | | | 24,391,103 | 0.07% |
| ASRS: Phoenix | Enhanced Passive F2 | | 1,868,004,161 | | | | | 1,868,004,161 | 5.55% |
| Blackrock: San Francisco | Passive (US Debt Index) | | 1,812,719,797 | | | | | 1,812,719,797 | 5.39% |
| | Core Fixed Income Total | | | | | | | \$4,092,776,109.53 | 12.16% |
| | | | | | | | | Interest Rate Sensitive: 11% | 11.00% |
| Columbia: Minneapolis | Active | 683,855,108 | | | | | | 683,855,108 | 2.03% |
| JP Morgan: Indianapolis | Active | 418,049,190 | | | | | | 418,049,190 | 1.24% |
| | High Yield Fixed Income Total | | | | | | | \$1,101,918,052 | 3.27% |
| | | | | | | | | High Yield Fixed Income Policy | 4.00% |
| | Opportunistic Debt | 1,135,355,989 | | | | | | 1,135,355,989 | 3.37% |
| | | | | | | | | Opportunistic Debt Policy: | 0.00% |
| | Private Debt Total | 1,763,652,738 | | | | | | 1,763,652,738 | 5.24% |
| | | | | | | | | Total Private Debt: 8% - 12% | 10.00% |
| | Fixed Income Total | | | | | | | \$8,093,721,063 | 24.05% |
| | | | | | | | | Total Fixed Income Policy Range: 18% - 35% | 25.00% |
| Intech: FL | Active (Growth) | | | 408,896,045 | | | | 408,896,045 | 1.21% |
| LSV: Chicago | Active (Value) | | | 720,566,583 | | | | 720,566,583 | 2.14% |
| ASRS: Phoenix | Passive E2 | | | | 4,830,003,599 | | | 4,830,003,599 | 14.35% |
| ASRS: Phoenix | Enhanced Passive E7 | | | | 621,341,897 | | | 621,341,897 | 1.85% |
| ASRS: Phoenix | Enhanced Passive E8 | | | | 536,632,287 | | | 536,632,287 | 1.59% |
| ASRS: Phoenix | Risk Factor Portfolio | | | | 539,214,443 | | | 539,214,443 | 1.60% |
| | Large Cap Equity Total | | | | | | | \$7,656,654,854 | 22.75% |
| | | | | | | | | Large Cap Policy | 20.00% |
| Wellington: Boston | Active (Core) | | | 273,325,795 | | | | 273,325,795 | 0.81% |
| ASRS: Phoenix | Passive E3 (Growth) | | | | 372,058,961 | | | 372,058,961 | 1.11% |
| ASRS: Phoenix | Passive E4 (Value) | | | | 327,374,878 | | | 327,374,878 | 0.97% |
| | Mid Cap Equity Total | | | | | | | \$972,816,538 | 2.89% |
| | | | | | | | | Mid Cap Policy | 3.00% |
| TimesSquare: New York | Active SMID (Growth) | | | 359,117,831 | | | | 359,117,831 | 1.07% |
| DFA: Santa Monica | Active (Value) | | | 270,148,866 | | | | 270,148,866 | 0.80% |
| ASRS: Phoenix | Passive E6 | | | | 317,619,629 | | | 317,619,629 | 0.94% |
| | Small Cap Equity Total | | | | | | | \$946,948,998 | 2.81% |
| | | | | | | | | Small Cap Policy | 3.00% |
| | U.S. Equity Total | | | | | | | \$9,576,420,390 | 28.45% |
| | | | | | | | | US Equity Policy Range: 16% - 36% | 26.00% |
| Brandes: San Diego | Active (Value) | | | 573,879,808 | | | | 573,879,808 | 1.71% |
| American Century | Active (EAFE) | | | 557,977,411 | | | | 557,977,411 | 1.66% |
| Trinity Street | Active (EAFE) | | | 323,643,774 | | | | 323,643,774 | 0.96% |
| Thompson Siegel Walmsley | Active (EAFE) | | | 297,388,673 | | | | 297,388,673 | 0.88% |
| Blackrock: San Francisco | Passive (EAFE) | | | | 4,050,484,608 | | | 4,050,484,608 | 12.03% |
| | Large Cap Developed Non-US Equity Total | | | | | | | \$5,806,112,093 | 17.25% |
| | | | | | | | | Large Cap Developed Policy | 17.00% |
| AQR: Greenwich | Active (EAFE SC) | | | 94,887,137 | | | | 94,887,137 | 0.28% |
| DFA: Santa Monica | Active (EAFE SC) | | | 102,963,425 | | | | 102,963,425 | 0.31% |
| Franklin Templeton: San Mateo | Active (EAFE SC) | | | 222,633,845 | | | | 222,633,845 | 0.66% |
| Blackrock: San Francisco | Passive (EAFE SC) | | | | 246,460,284 | | | 246,460,284 | 0.73% |
| | Small Cap Developed Non-US Equity Total | | | | | | | \$666,947,163 | 1.98% |
| | | | | | | | | Small Cap Developed Policy | 2.00% |
| William Blair: Chicago | Active (EM) | | | 351,756,273 | | | | 351,756,273 | 1.05% |
| Eaton Vance: Boston | Active (EM) | | | 358,461,739 | | | | 358,461,739 | 1.06% |
| LSV: Chicago | Active (EM) | | | 214,358,553 | | | | 214,358,553 | 0.64% |
| Blackrock: San Francisco | Passive (EM) | | | | 471,797,492 | | | 471,797,492 | 1.40% |
| | Emerging Markets Equity Total | | | | | | | \$1,396,374,057 | 4.15% |
| | | | | | | | | Emerging Markets Policy | 5.00% |
| | Non-US Equity Total | | | | | | | \$7,869,433,312 | 23.38% |
| | | | | | | | | Non-US Equity Policy Range: 14% - 34% | 24.00% |
| | Private Equity Total | | | 2,630,678,568 | | | | 2,630,678,568 | 7.82% |
| | | | | | | | | Private Equity Policy Range: 6% - 10% | 8.00% |
| | Opportunistic Equity | | | 472,079,054 | | | | 472,079,054 | 1.40% |
| | | | | | | | | Opportunistic Equity Policy: | 0.00% |
| | Equity Total | | | | | | | \$20,548,611,325 | 61.05% |
| | | | | | | | | Total Equity Policy Range: 48% - 65% | 58.00% |
| Gresham: New York | Commodities Total | | | | | 241,928,182 | | 241,928,182 | 0.72% |
| | | | | | | | | \$241,928,182 | 0.72% |
| | | | | | | | | Commodities Policy Range: 0% - 4% | 2.00% |
| | Real Estate Total | | | | | 2,454,076,779 | | 2,454,076,779 | 7.29% |
| | | | | | | | | Real Estate Policy Range: 8% - 12% | 10.00% |
| | Infrastructure Total | | | | | 294,905,096 | | 294,905,096 | 0.88% |
| | | | | | | | | Infrastructure Policy Range: 0% - 3% | 0.00% |
| | Farmland & Timber Total | | | | | 182,866,866 | | 182,866,866 | 0.54% |
| | | | | | | | | Farmland & Timber Policy Range: 0% - 3% | 0.00% |
| | Inflation Linked Total | | | | | | | \$3,173,776,922 | 9.43% |
| | | | | | | | | Inflation Linked Policy Range: 10% - 16% | 12.00% |
| Windham | | | | | | | 3,680,915 | 3,680,915 | 0.01% |
| Bridgewater | | | | | | | 1,089,490,826 | 1,089,490,826 | 3.24% |
| | Multi-Asset Class Strategies | | | | | | | \$1,093,171,741 | 3.25% |
| | | | | | | | | Multi-Asset Class Policy Range: 0% - 12% | 5.00% |
| | TOTAL Amounts | \$4,000,944,953 | \$4,841,999,451 | \$8,234,678,524 | \$12,313,932,801 | \$3,173,776,922 | \$1,093,171,741 | \$33,658,504,391 | Total Fund |
| | TOTAL Percent | 11.89% | 14.39% | 24.47% | 36.58% | 9.43% | 3.25% | | |

| Asset Class | Actual | SAAP | Interim SAA* | Actual - Interim SAA** | | Policy Band check | | | | | | | | | | | | |
|--|------------------------|---------------------|------------------------|------------------------|-----------------------|---------------------------------------|--------------------|-----------------|------|----------------------|---------------|------|-------------------|-----|------|--------------|------------------------|-------------|
| | Portfolio | Target (Range) | Adj Policy | % diff | \$ diff | Actual - Adj Policy | | | | | | | | | | | | |
| Tactical Cash | 0.00% | 0% (0-3%) | 0.00% | 0.00% | | | | | | | | | | | | | | |
| Cash | 2.23% | 0.00% | 0.00% | 2.23% | 749,223,341 | | | | | | | | | | | | | |
| Interest Rate Sensitive | 12.16% | 11% | 15.30% | -3.14% | | | | | | | | | | | | | | |
| High Yield | 3.27% | 4% | 5.27% | -2.00% | | | | | | | | | | | | | | |
| Opportunistic Debt | 3.37% | 0% | 0.00% | 3.37% | \$1,135,355,989 | | | | | | | | | | | | | |
| Private Debt | 5.24% | 10% (8-12%) | 5.24% (3-7%) | 0.00% | | | | | | | | | | | | | | |
| Total Fixed Income | 24.05% | 25% (18-35%) | 25.81% (19-36%) | -1.77% | -\$594,437,133 | OK | | | | | | | | | | | | |
| Large Cap | 22.75% | 20% | 21.24% | 1.51% | \$507,360,465 | | | | | | | | | | | | | |
| Mid Cap | 2.89% | 3% | 3.00% | -0.11% | -\$36,938,593 | | | | | | | | | | | | | |
| Small Cap | 2.81% | 3% | 3.00% | -0.19% | -\$62,806,134 | | | | | | | | | | | | | |
| US Equity | 28.45% | 26% (16-36%) | 27.24% (17-37%) | 1.21% | \$407,615,737 | OK | | | | | | | | | | | | |
| Developed Large Cap | 17.25% | 17% | 17.79% | -0.54% | -\$180,248,015 | | | | | | | | | | | | | |
| Developed Small Cap | 1.98% | 2% | 2.00% | -0.02% | -\$6,222,925 | | | | | | | | | | | | | |
| Emerging Markets | 4.15% | 5% | 5.00% | -0.85% | -\$286,551,163 | | | | | | | | | | | | | |
| Non-US Equity | 23.38% | 24% (14-34%) | 24.79% (15-35%) | -1.41% | -\$473,022,103 | OK | | | | | | | | | | | | |
| Private Equity | 7.82% | 8% (6-10%) | 7.82% | 0.00% | \$0 | OK | | | | | | | | | | | | |
| Opportunistic Equity | 1.40% | 0% | 0.00% | 1.40% | \$472,079,054 | | | | | | | | | | | | | |
| Total Equity | 61.05% | 58% (48-65%) | 59.84% (50-67%) | 1.21% | \$406,672,689 | OK | | | | | | | | | | | | |
| Commodities | 0.72% | 2% (0-4%) | 2.05% | -1.34% | -\$449,477,379 | OK | | | | | | | | | | | | |
| Real Estate | 7.29% | 10% (8-12%) | 7.29% | 0.00% | \$0 | OK | | | | | | | | | | | | |
| Infrastructure | 0.88% | 0% (0-3%) | 0.00% | 0.88% | \$294,905,096 | OK | | | | | | | | | | | | |
| Farmland & Timber | 0.54% | 0% (0-3%) | 0.00% | 0.54% | \$182,866,866 | OK | | | | | | | | | | | | |
| Opportunistic I/L | 0.00% | 0% | 0.00% | 0.00% | \$0 | | | | | | | | | | | | | |
| Total Inflation Linked | 9.43% | 12% (10-16%) | 9.35% (7-11%) | 0.08% | \$28,294,582 | OK | | | | | | | | | | | | |
| Multi-Asset Strategies*** | 3.25% | 5% (0-12%) | 5% (0-12%) | -1.75% | -\$589,753,479 | OK | | | | | | | | | | | | |
| Total | 100.00% | 100% | 100.00% | 0.00% | \$0 | | | | | | | | | | | | | |
| | | | | | | Internally Managed Portfolios: | | | | | | | | | | | | |
| | | | | | | \$8,873,035,412 | | | | | | | | | | | | |
| | | | | | | 26% | | | | | | | | | | | | |
| <p>*Interim SAA includes a proration of unfunded Private Equity, Private Debt, and Real Estate **Private Equity is prorated to domestic equity; Real Estate is prorated to equity, commodities, and fixed income; Private Debt is prorated to Interest Rate Sensitive and High Yield</p> | | | | | | | | | | | | | | | | | | |
| <p>Opportunistic definitions: An investment in a category that is not included in the ASRS Asset Allocation policy and represents an investment opportunity that is tactical in nature. Opportunistic investments have a 0% target (0%-10% range), regardless of asset class.</p> | | | | | | | | | | | | | | | | | | |
| <p>Total Opportunistic</p> <table border="1"> <tr> <td>Opportunistic Debt</td> <td>\$1,135,355,989</td> <td>3.4%</td> </tr> <tr> <td>Opportunistic Equity</td> <td>\$472,079,054</td> <td>1.4%</td> </tr> <tr> <td>Opportunistic I/L</td> <td>\$0</td> <td>0.0%</td> </tr> <tr> <td>Total</td> <td>\$1,607,435,043</td> <td>4.8%</td> </tr> </table> | | | | | | | Opportunistic Debt | \$1,135,355,989 | 3.4% | Opportunistic Equity | \$472,079,054 | 1.4% | Opportunistic I/L | \$0 | 0.0% | Total | \$1,607,435,043 | 4.8% |
| Opportunistic Debt | \$1,135,355,989 | 3.4% | | | | | | | | | | | | | | | | |
| Opportunistic Equity | \$472,079,054 | 1.4% | | | | | | | | | | | | | | | | |
| Opportunistic I/L | \$0 | 0.0% | | | | | | | | | | | | | | | | |
| Total | \$1,607,435,043 | 4.8% | | | | | | | | | | | | | | | | |

ASRS Pension and HBS Assets
Public Securities Markets
Investment Managers Performance Summary



| | Benchmark | Market Value (\$mil.) | 1 Mth | 3 Mth | 1 Year | 3 Year | 5 Year | 10 Year | ITD | Inception Date |
|-----------------------------------|---|-----------------------|--------------|--------------|-------------|--------------|--------------|-------------|-------------|-------------------|
| US EQUITY LARGE CAP | | | | | | | | | | |
| E2 MODEL | S&P 500 INDEX (DAILY) | 4,830 | -6.04 | -5.95 | 0.44 | 14.29 | 15.85 | 7.20 | 7.37 | 04-01-1997 |
| Excess | | | -0.01 | -0.03 | -0.04 | -0.03 | -0.02 | 0.05 | 0.07 | |
| INTECH LARGE CAP | S&P/CITIGROUP 500 GROWTH | 409 | -6.17 | -4.67 | 2.18 | 13.58 | 15.77 | 7.52 | 9.43 | 01-01-2003 |
| Excess | | | -0.08 | -0.13 | -1.77 | -1.56 | -1.70 | -0.88 | 0.28 | |
| LSV ASSET MANAGEMENT | LSV CUSTOM INDEX | 721 | -6.29 | -7.55 | -3.45 | 17.02 | 16.22 | 7.63 | 10.60 | 01-01-2003 |
| Excess | | | -0.32 | -0.07 | -0.17 | 3.56 | 2.01 | 1.81 | 2.28 | |
| E7 | MSCI USA High Dividend Yield Index | 621 | -5.40 | -7.12 | -3.03 | 11.57 | | | 11.41 | 08-01-2012 |
| Excess | | | -0.03 | -0.09 | -0.20 | -0.01 | | | 0.01 | |
| E8 | MSCI USA Minimum Volatility Index | 537 | -4.53 | -2.96 | 7.00 | 13.80 | | | 13.40 | 08-01-2012 |
| Excess | | | -0.02 | -0.05 | -0.14 | 0.39 | | | 0.41 | |
| TOTAL US EQUITY LARGE CAP | S&P 500 INDEX (DAILY) | 7,117 | -5.90 | -5.94 | 0.22 | 14.03 | 15.59 | 7.16 | 7.53 | 06-01-2002 |
| Excess | | | 0.13 | -0.01 | -0.26 | -0.29 | -0.29 | 0.00 | 0.64 | |
| US EQUITY MID CAP | | | | | | | | | | |
| WELLINGTON MANAGEMENT COMPANY LLP | S&P 400 MIDCAP INDEX (DAILY) | 273 | -5.08 | -3.90 | 3.25 | 18.31 | 16.67 | 10.27 | 11.22 | 07-01-2002 |
| Excess | | | 0.50 | 2.80 | 3.25 | 3.21 | 0.53 | 1.58 | 1.31 | |
| E3 MODEL | S&P/CITIGROUP 400 GROWTH | 372 | -6.54 | -5.27 | 3.76 | 15.07 | 17.09 | 9.98 | 8.48 | 12-01-2000 |
| Excess | | | 0.02 | -0.04 | -0.03 | 0.07 | 0.26 | 0.53 | 0.53 | |
| E4 MODEL | S&P/CITIGROUP 400 VALUE | 327 | -4.50 | -8.27 | -4.05 | 15.02 | 15.29 | 8.09 | 9.82 | 07-01-2002 |
| Excess | | | -0.02 | -0.04 | -0.07 | -0.09 | -0.11 | 0.23 | 0.18 | |
| TOTAL US EQUITY MID CAP | S&P 400 MIDCAP INDEX (DAILY) | 973 | -5.45 | -5.94 | 0.59 | 15.77 | 16.13 | 8.79 | 9.93 | 06-01-2002 |
| Excess | | | 0.13 | 0.76 | 0.58 | 0.67 | -0.00 | 0.10 | 0.72 | |
| US EQUITY SMALL CAP | | | | | | | | | | |
| DIMENSIONAL FUND ADVISORS EQFD | DFA BLENDED BENCHMARK | 270 | -4.07 | -7.78 | -7.45 | 16.09 | 16.18 | 7.70 | 11.50 | 09-01-1998 |
| Excess | | | 0.42 | -1.05 | -4.55 | 1.62 | 0.03 | 0.10 | 1.02 | |
| E6 | S&P 600 SMALL CAP (DAILY) | 318 | -4.91 | -4.81 | 2.03 | 15.29 | 17.28 | | 7.69 | 02-01-2007 |
| Excess | | | 0.27 | 0.20 | 0.23 | 0.04 | -0.08 | | 0.35 | |
| TIMESQUARE CAPITAL MANAGEMENT | TIMESQUARE BLENDED BENCHMARK | 359 | -6.61 | -4.88 | 3.91 | 16.37 | 18.59 | 11.22 | 11.82 | 04-01-2005 |
| Excess | | | 0.96 | 1.07 | -0.58 | -0.45 | 0.48 | 2.14 | 2.21 | |

ASRS Pension and HBS Assets
Public Securities Markets
Investment Managers Performance Summary



| | Benchmark | Market Value (\$mil.) | 1 Mth | 3 Mth | 1 Year | 3 Year | 5 Year | 10 Year | ITD | Inception Date |
|--|--|-----------------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|-------------------|
| TOTAL US EQUITY SMALL CAP | ASRS SMALL CAP CUSTOM INDEX | 947 | -5.33 | -5.72 | 0.04 | 15.73 | 17.24 | 8.61 | 10.17 | 06-01-2002 |
| Excess | | | -0.15 | -0.71 | -1.76 | 0.47 | -0.13 | 0.16 | 0.98 | |
| TOTAL US EQUITY | COMBINED DOMESTIC EQUITY INDEX | 9,435 | -5.80 | -5.93 | 0.31 | 14.60 | 16.08 | 7.74 | 11.12 | 07-01-1975 |
| Excess | | | 0.04 | -0.03 | -0.37 | -0.03 | -0.06 | 0.13 | -0.08 | |
| INTERNATIONAL DEVELOPED LARGE CAP | | | | | | | | | | |
| BRANDES INVESTMENT PARTNERS INT EQ | BRANDES CUSTOM INDEX | 574 | -5.87 | -5.85 | -3.98 | 11.38 | 7.37 | 4.53 | 8.82 | 10-01-1998 |
| Excess | | | 1.49 | 2.26 | 3.49 | 2.67 | 0.30 | -0.82 | 2.99 | |
| AMERICAN CENTURY | MSCI EAFE NET (BLENDED) | 558 | -6.76 | -6.20 | -2.36 | | | | -3.85 | 07-01-2014 |
| Excess | | | 0.60 | 1.91 | 5.12 | | | | 4.27 | |
| BGI EAFE INDEX | MSCI EAFE NET (BLENDED) | 4,025 | -7.36 | -8.11 | -7.25 | 8.79 | 7.34 | | 7.99 | 07-01-2009 |
| Excess | | | 0.00 | -0.00 | 0.22 | 0.08 | -0.01 | | -0.03 | |
| THOMSON, SIEGEL & WALMSLEY | MSCI EAFE NET (BLENDED) | 297 | -6.29 | -7.52 | -4.78 | | | | -5.73 | 07-01-2014 |
| Excess | | | 1.06 | 0.59 | 2.69 | | | | 2.38 | |
| TRINITY STREET | MSCI EAFE NET (BLENDED) | 324 | -4.83 | -5.40 | -4.31 | | | | -6.40 | 07-01-2014 |
| Excess | | | 2.53 | 2.71 | 3.17 | | | | 1.72 | |
| TOTAL INTERNATIONAL DEVELOPED LARGE CAP | MSCI EAFE NET (BLENDED) | 5,779 | -6.96 | -7.51 | -6.21 | 8.38 | 7.36 | | | 09-01-2009 |
| Excess | | | 0.40 | 0.60 | 1.26 | -0.33 | 0.01 | | | |
| INTERNATIONAL DEVELOPED SMALL CAP | | | | | | | | | | |
| AQR CAPITAL | MSCI EAFE SMALL CAP NET (BLENDED) | 95 | -3.98 | -2.24 | 1.53 | | | | 10.49 | 06-01-2013 |
| Excess | | | 0.42 | 2.57 | 3.37 | | | | 2.42 | |
| BLACKROCK EAFE SMALL CAP | MSCI EAFE SMALL CAP NET (BLENDED) | 246 | -4.40 | -4.86 | -1.51 | 13.27 | 10.44 | | 11.02 | 06-01-2010 |
| Excess | | | -0.01 | -0.05 | 0.33 | -0.01 | -0.18 | | -0.12 | |
| DIMENSIONAL FUND ADVISORS INTL SC | MSCI EAFE SMALL CAP NET (BLENDED) | 103 | -4.74 | -7.39 | -8.93 | 12.15 | 8.41 | 5.09 | 5.09 | 09-01-2005 |
| Excess | | | -0.35 | -2.58 | -7.09 | -1.13 | -2.22 | -0.64 | -0.64 | |
| FRANKLIN TEMPLETON INVESTMENTS | MSCI EAFE SMALL CAP NET (BLENDED) | 223 | -3.62 | -2.12 | -1.01 | 14.54 | | | 7.98 | 04-01-2011 |
| Excess | | | 0.77 | 2.68 | 0.84 | 1.25 | | | 2.04 | |
| TOTAL INTERNATIONAL DEVELOPED SMALL CAP | MSCI EAFE SMALL CAP NET (BLENDED) | 667 | -4.14 | -4.25 | -2.44 | 14.26 | 11.43 | | 8.30 | 10-01-2009 |
| Excess | | | 0.26 | 0.55 | -0.60 | 0.98 | 0.80 | | -0.09 | |
| INTERNATIONAL EMERGING MARKETS | | | | | | | | | | |
| BLACKROCK EMERGING MARKETS | MSCI EMF NET (BLENDED) | 472 | -8.89 | -17.54 | -23.07 | -2.59 | | | -3.22 | 10-01-2010 |



| | Benchmark | Market Value (\$mil.) | 1 Mth | 3 Mth | 1 Year | 3 Year | 5 Year | 10 Year | ITD | Inception Date |
|---|---------------------------------------|-----------------------|--------------|---------------|---------------|--------------|--------------|-------------|--------------|-------------------|
| Excess | | | 0.16 | 0.01 | -0.12 | -0.30 | | | -0.39 | |
| EATON VANCE EMERGING MARKET EQUITY | MSCI EMF NET (BLENDED) | 359 | -7.80 | -13.94 | -23.18 | -1.73 | | | -2.62 | 12-01-2010 |
| Excess | | | 1.25 | 3.61 | -0.23 | 0.55 | | | 0.35 | |
| LSV EMERGING MARKET EQUITY | MSCI EMF NET (BLENDED) | 213 | -9.40 | -20.20 | -26.34 | -2.09 | | | -2.83 | 12-01-2010 |
| Excess | | | -0.36 | -2.65 | -3.39 | 0.19 | | | 0.14 | |
| WILLIAM BLAIR & COMPANY | MSCI EMF NET (BLENDED) | 350 | -9.35 | -17.10 | -18.83 | 0.80 | | | -0.68 | 11-01-2010 |
| Excess | | | -0.31 | 0.45 | 4.12 | 3.09 | | | 2.78 | |
| TOTAL INTERNATIONAL EMERGING MARKETS | MSCI EMF NET (BLENDED) | 1,394 | -8.81 | -16.97 | -22.62 | -1.52 | | | -2.53 | 10-01-2010 |
| Excess | | | 0.24 | 0.58 | 0.33 | 0.76 | | | 0.31 | |
| TOTAL INTERNATIONAL EQUITY | INTERNATIONAL EQUITY INDEX | 7,840 | -7.06 | -8.99 | -9.59 | 6.35 | 5.82 | 3.90 | 5.91 | 04-01-1987 |
| Excess | | | 0.35 | 1.19 | 1.36 | -0.07 | 0.09 | -0.78 | 0.35 | |
| RISK FACTOR PORTFOLIO | | | | | | | | | | |
| RISK FACTOR PORTFOLIO | | 539 | -5.62 | -4.78 | 2.98 | | | | 11.93 | 06-01-2013 |
| TOTAL EQUITY W/ RISK FACTOR OVERLAY | MSCI WORLD NET (BLENDED) | 17,815 | -6.37 | -7.33 | -3.94 | 11.14 | 12.40 | 6.24 | 6.39 | 01-01-1998 |
| Excess | | | 0.25 | -0.18 | 0.19 | -0.08 | 0.93 | 0.36 | 0.84 | |
| TOTAL EQUITY W/O RISK FACTOR | MSCI WORLD NET (BLENDED) | 17,276 | -6.39 | -7.41 | -4.07 | 11.11 | 12.39 | 6.24 | 6.38 | 01-01-1998 |
| Excess | | | 0.23 | -0.26 | 0.06 | -0.10 | 0.91 | 0.36 | 0.83 | |
| CORE FIXED INCOME | | | | | | | | | | |
| BGI US DEBT FD | Barclays Aggregate (Daily) | 1,812 | -0.13 | -0.53 | 1.69 | | | | 2.87 | 05-01-2014 |
| Excess | | | 0.01 | 0.01 | 0.14 | | | | 0.17 | |
| F2 MODEL | Barclays Aggregate (Daily) | 1,868 | -0.06 | -0.30 | 2.07 | 1.79 | 3.22 | 4.73 | 5.45 | 10-01-2000 |
| Excess | | | 0.08 | 0.24 | 0.52 | 0.27 | 0.25 | 0.28 | 0.17 | |
| BGI GOVT/CRDTBD INDEX | Barclays Gov/Credit Int (Daily) | 24 | -0.08 | -0.30 | 1.61 | 1.42 | 2.50 | | 4.54 | 11-01-2008 |
| Excess | | | 0.00 | 0.02 | 0.14 | 0.12 | 0.12 | | 0.10 | |
| TOTAL CORE FIXED INCOME | Barclays Aggregate (Daily) | 3,704 | -0.10 | -0.41 | 1.93 | | | | 1.80 | 01-01-2013 |
| Excess | | | 0.05 | 0.13 | 0.37 | | | | 0.21 | |
| LONG DURATION TREASURIES | | | | | | | | | | |
| BLACKROCK LONG GOV BONDS | Barclays Treasury Long (Daily) | 382 | | | | | | | | 08-01-2015 |
| Excess | | | | | | | | | | |
| LONG DURATION TREASURIES | Barclays Treasury Long (Daily) | 382 | | | | | | | | 08-01-2015 |

ASRS Pension and HBS Assets
Public Securities Markets
Investment Managers Performance Summary



| | Benchmark | Market Value (\$mil.) | 1 Mth | 3 Mth | 1 Year | 3 Year | 5 Year | 10 Year | ITD | Inception Date |
|---|---|-----------------------|--------------|---------------|---------------|---------------|--------------|-------------|--------------|-------------------|
| Excess | | | | | | | | | | |
| HIGH YIELD FIXED INCOME | | | | | | | | | | |
| COLUMBIA MANAGEMENT INV. ADVISORS, LLC | Barclays Corp High Yield (Daily) | 684 | -0.96 | -1.87 | 0.76 | 5.91 | 8.12 | | 8.84 | 10-01-2009 |
| Excess | | | 0.78 | 1.90 | 3.69 | 1.00 | 0.77 | | 0.14 | |
| JP MORGAN HIGH YIELD | Barclays Corp High Yield (Daily) | 418 | -1.29 | -2.56 | -0.76 | | | | 4.62 | 07-01-2013 |
| Excess | | | 0.45 | 1.21 | 2.16 | | | | 0.69 | |
| TOTAL HIGH YIELD FIXED INCOME | Barclays Corp High Yield (Daily) | 1,102 | -1.09 | -2.13 | 0.19 | 5.54 | 7.58 | | 8.42 | 10-01-2009 |
| Excess | | | 0.65 | 1.64 | 3.12 | 0.63 | 0.23 | | -0.28 | |
| TOTAL PUBLIC FIXED INCOME | ASRS CUSTOM FIXED INCOME BENCHMARK | 5,188 | -0.51 | -1.02 | -0.73 | 1.18 | 3.11 | 4.69 | 8.30 | 07-01-1975 |
| Excess | | | 0.94 | 1.80 | 3.22 | 1.02 | 0.91 | 0.63 | | |
| MULTI-ASSET CLASS STRATEGIES | | | | | | | | | | |
| BRIDGEWATER ASSOCIATES GBLB TAA | BRIDGEWATER CUSTOM BENCHMARK | 1,085 | -4.30 | -6.25 | -1.46 | 9.62 | 12.24 | 8.35 | 8.42 | 01-01-2004 |
| Excess | | | -4.31 | -6.26 | -2.51 | 0.24 | 1.73 | 2.33 | 2.12 | |
| TOTAL MULTI-ASSET CLASS STRATEGIES | MULTI ASSET CUSTOM INDEX | 1,089 | -5.39 | -7.56 | -4.18 | 8.26 | 10.74 | 7.23 | 7.30 | 01-01-2004 |
| Excess | | | -4.41 | -6.12 | -4.04 | -0.69 | 0.50 | 1.34 | 1.11 | |
| GLOBAL INFLATION LINKED | | | | | | | | | | |
| GRESHAM | Bloomberg Commodity Index Total Return | 242 | -0.81 | -11.12 | -29.07 | -13.57 | -5.02 | | -5.02 | 09-01-2010 |
| Excess | | | 0.11 | -1.21 | -0.93 | 1.00 | 1.94 | | 1.94 | |
| TOTAL GLOBAL INFLATION LINKED | Bloomberg Commodity Index Total Return | 242 | -0.81 | -11.12 | -29.07 | -13.70 | -6.70 | | -5.26 | 02-01-2010 |
| Excess | | | 0.11 | -1.21 | -0.93 | 0.86 | 0.26 | | 0.75 | |
| CASH ASSETIZATION | | | | | | | | | | |
| TOTAL CASH ASSETIZATION | CASH ASSETIZATION CUSTOM INDEX | 720 | -7.00 | -8.01 | | | | | -2.89 | 02-01-2015 |
| Excess | | | 3.33 | 2.99 | | | | | 3.73 | |
| TOTAL PUBLIC MARKET | | 24,690 | -5.07 | -6.20 | -3.93 | 8.07 | 9.78 | | 8.81 | 10-01-2009 |

ASRS Long Term Disability Assets
Investment Managers Performance Summary



| | Benchmark | Market Value (\$mil.) | 1 Mth | 3 Mth | YTD | 1 Year | 3 Year | 5 Year | 10 Year | ITD | Inception Date |
|--|--|-----------------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------------|
| LTD | | | | | | | | | | | |
| BLACKROCK - US DEBT FUND B | Barclays Aggregate (Daily) | 27.2 | -0.12 | -0.55 | 0.45 | 1.62 | 1.58 | | | 3.50 | 01-01-2011 |
| Excess | | | 0.02 | -0.00 | 0.00 | 0.07 | 0.06 | | | 0.04 | |
| BLACKROCK - US HIGH YIELD FUND B | Barclays Corp High Yield (Daily) | 17.9 | -1.76 | -3.96 | -0.22 | -3.06 | 4.65 | | | 6.23 | 01-01-2011 |
| Excess | | | -0.02 | -0.19 | -0.38 | -0.13 | -0.26 | | | -0.25 | |
| BLACKROCK-LTD-EM BD INDX FD B | JPM GBI-EM Global Diversified Index | 4.8 | -5.32 | -9.14 | -12.71 | -22.16 | | | | -10.85 | 01-01-2013 |
| Excess | | | 0.06 | -0.21 | -0.41 | -0.63 | | | | -0.73 | |
| BLACKROCK - RUSSELL 1000 FUND B | RUSSELL 1000 (DAILY) | 78.2 | -6.01 | -5.98 | -2.54 | 0.43 | 14.67 | | | 12.56 | 01-01-2011 |
| Excess | | | 0.00 | 0.02 | 0.03 | 0.03 | -0.01 | | | 0.01 | |
| BLACKROCK - RUSSELL 2000 FUND B | RUSSELL 2000 (DAILY) | 15.7 | -6.28 | -6.65 | -2.88 | 0.20 | 14.30 | | | 10.40 | 01-01-2011 |
| Excess | | | 0.01 | 0.03 | 0.09 | 0.17 | 0.17 | | | 0.17 | |
| BLACKROCK - EAFE INDEX FUND B | MSCI EAFE NET (BLENDED) | 30.6 | -7.36 | -8.12 | -0.18 | -7.44 | 8.56 | | | 4.07 | 01-01-2011 |
| Excess | | | -0.00 | -0.01 | 0.03 | 0.03 | -0.14 | | | -0.24 | |
| BLACKROCK EAFE SMALL CAP FUND B | MSCI EAFE SMALL CAP NET (BLENDED) | 8.7 | -4.40 | -4.80 | 6.27 | -1.51 | 13.31 | | | 6.16 | 01-01-2011 |
| Excess | | | -0.00 | 0.01 | 0.07 | 0.33 | 0.02 | | | -0.13 | |
| BLACKROCK MSCI EMERGING MARKETS FUND B | MSCI EMF NET (BLENDED) | 12.7 | -8.87 | -17.60 | -13.03 | -23.13 | -2.64 | | | -4.88 | 01-01-2011 |
| Excess | | | 0.18 | -0.05 | -0.17 | -0.18 | -0.35 | | | -0.43 | |
| BGI-LTD- R ESTATE FD | WILSHIRE RESI (DAILY) | 19.5 | -5.88 | -4.75 | -6.07 | 1.72 | 7.86 | 12.35 | 6.20 | 6.75 | 01-01-2005 |
| Excess | | | 0.02 | -0.19 | -0.46 | -0.56 | -1.33 | -0.96 | -0.50 | -0.49 | |
| BLACKROCK DJ UBS COMM FUND B | Bloomberg Commodity Index Total Return | 5.0 | -0.85 | -9.81 | -12.81 | -28.19 | -14.72 | | | -11.91 | 01-01-2011 |
| Excess | | | 0.07 | 0.11 | 0.01 | -0.05 | -0.16 | | | -0.27 | |
| LONG TERM DISABILITY - CASH | 91 DAY TREASURY BILL (DAILY) | 2.0 | 0.00 | 0.00 | 0.00 | -0.00 | 0.00 | 0.04 | 1.45 | 2.63 | 07-01-1995 |
| Excess | | | -0.01 | -0.01 | -0.02 | -0.03 | -0.05 | -0.03 | 0.07 | -0.05 | |
| TOTAL LTD | LTD POLICY INDEX | 222.2 | -5.15 | -6.21 | -2.84 | -3.78 | 7.86 | 9.61 | 5.11 | 6.08 | 07-01-2002 |

Long Term Disability (LTD)

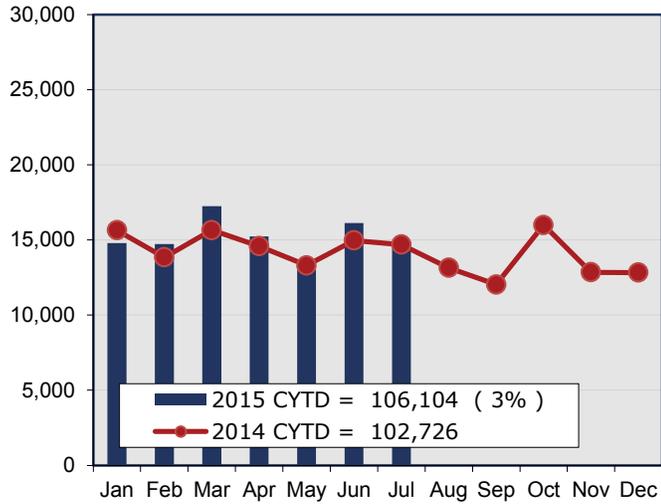
Monday, August 31, 2015

| <u>Account Manager</u> | <u>Account Manager Style</u> | <u>Fixed Income</u> | <u>Equity</u> | <u>Inflation Linked</u> | <u>Total</u> | <u>Pct of Fund</u> | <u>Target (Range)</u> |
|--------------------------|-------------------------------------|---------------------|---------------------|-------------------------|----------------------|--------------------|-----------------------|
| StateStreet B&T: Boston | Cash | \$1,800,936 | | | \$1,800,936 | 0.81% | |
| BlackRock: San Francisco | Fixed Core (Passive) | \$27,283,508 | | | \$27,283,508 | 12.27% | 13% |
| BlackRock: San Francisco | Fixed High Yield (Passive) | \$17,830,606 | | | \$17,830,606 | 8.02% | 8% |
| BlackRock: San Francisco | Emerging Market Debt (Passive) | \$4,809,538 | | | \$4,809,538 | 2.16% | 4% |
| | | | | | | 22.45% | 25% (15-35%) |
| BlackRock: San Francisco | Russell 1000 (Passive) | | \$78,720,255 | | \$78,720,255 | 35.39% | 34% |
| BlackRock: San Francisco | Russell 2000 (Passive) | | \$15,632,466 | | \$15,632,466 | 7.03% | 6% |
| | | | | | | 42.42% | 40% (33-45%) |
| BlackRock: San Francisco | EAFE (Passive) | | \$30,461,993 | | \$30,461,993 | 13.70% | 14% |
| BlackRock: San Francisco | EAFE SC (Passive) | | \$8,612,375 | | \$8,612,375 | 3.87% | 3% |
| BlackRock: San Francisco | Emerging Markets (Passive) | | \$12,545,095 | | \$12,545,095 | 5.64% | 6% |
| | | | | | | 23.21% | 23% (16-28%) |
| BlackRock: San Francisco | Dow Jones UBS Commodities (Passive) | | | \$4,776,244 | \$4,776,244 | 2.15% | 4% (1-7%) |
| BlackRock: San Francisco | US Real Estate (Passive) | | | \$19,947,931 | \$19,947,931 | 8.97% | 8% (6-10%) |
| | | | | | | 11.12% | 12% (8-16%) |
| | TOTAL Amounts | \$51,724,587 | \$145,972,182 | \$24,724,175 | \$222,420,944 | | |
| | TOTAL Percent | 23.26% | 65.63% | 11.12% | | | |
| | Actual Portfolio | 23.26% | 65.63% | 11.12% | | | |
| | Policy | 25% (15-35%) | 63% (53-70%) | 12% (8-16%) | | | |

Member Advisory Center: Phone

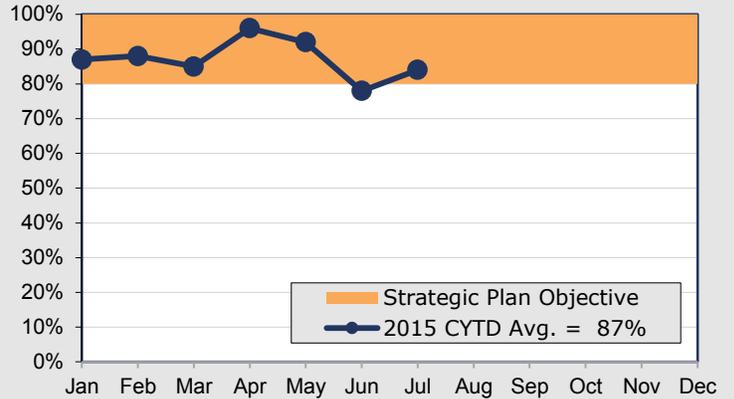
Volume

comparison of calls by month and year



Timeliness

percent answered in 20 seconds or less

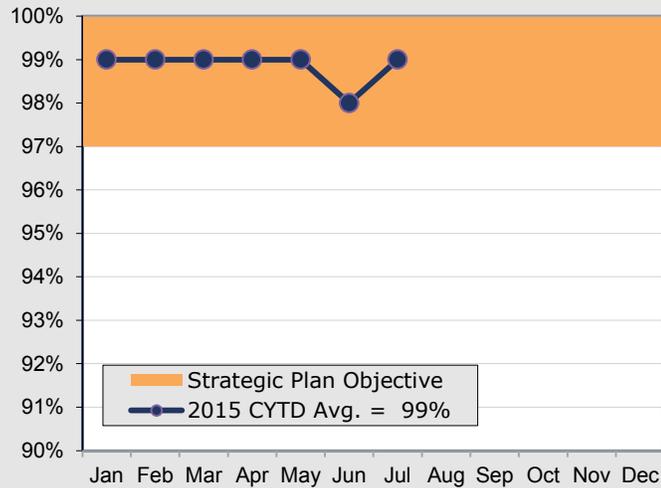


Timeliness (average wait time in seconds)

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Average Wait Time (seconds) | 13 | 11 | 14 | 10 | 12 | 27 | 20 | | | | | |

Resolution Rate

percent resolved on first contact



Abandonment Rate

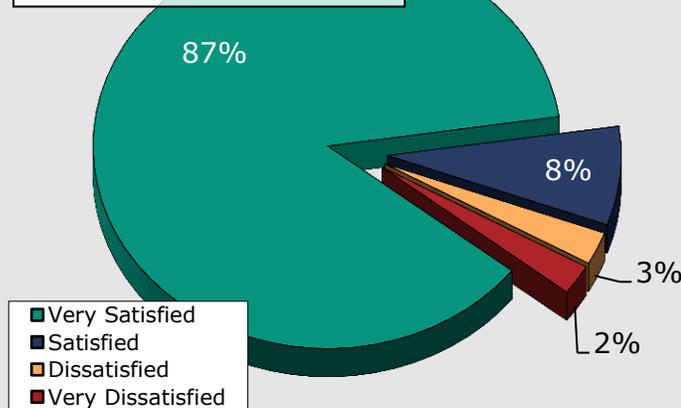
percent of calls abandoned



Member Satisfaction

1st Quarter 2015

Very Satisfied + Satisfied = 95%
Strategic Plan Objective = 90%

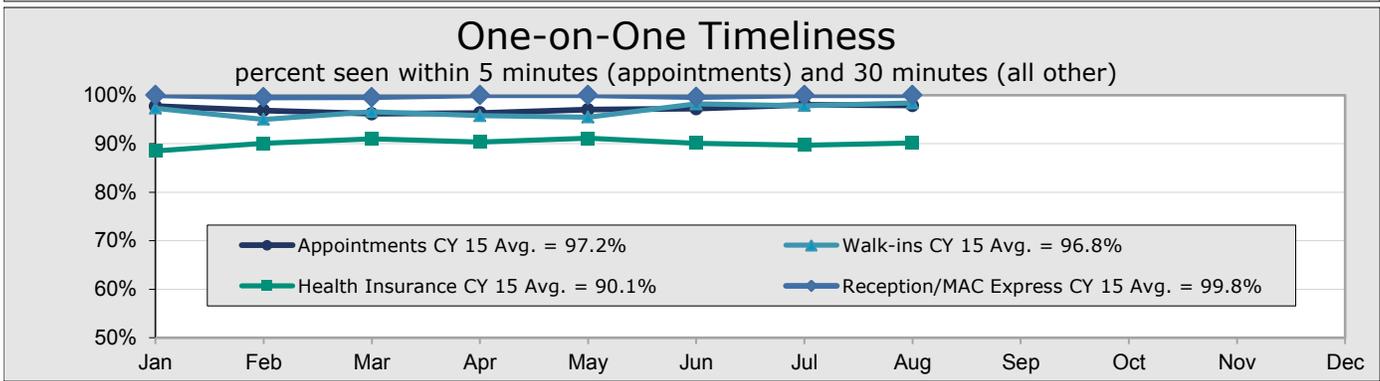
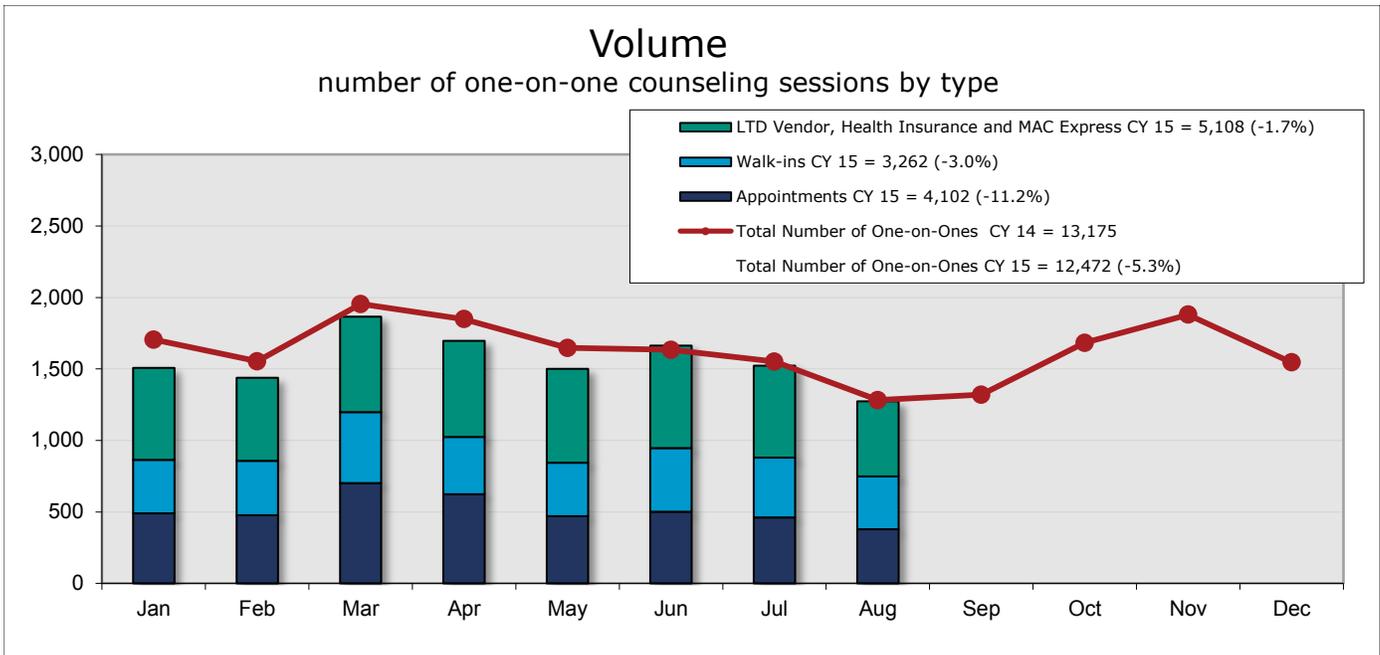


Quality

of agent response to member inquiries

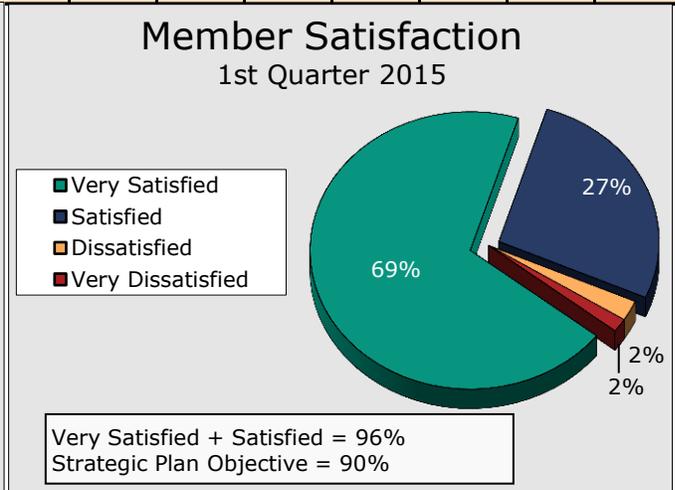
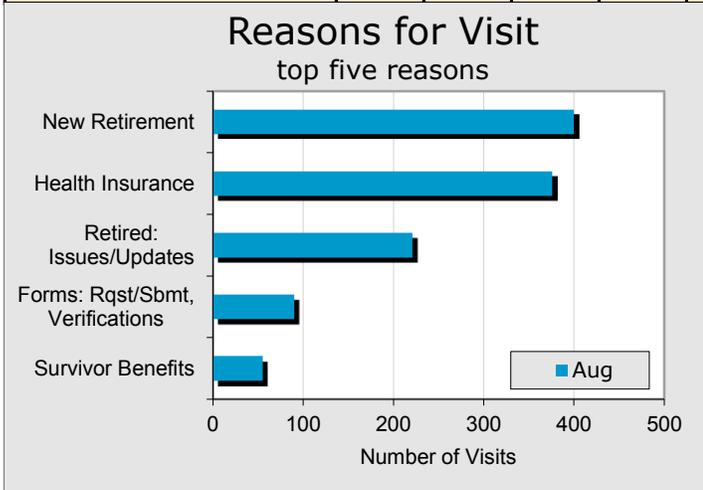


Member Advisory Center: One-on-One

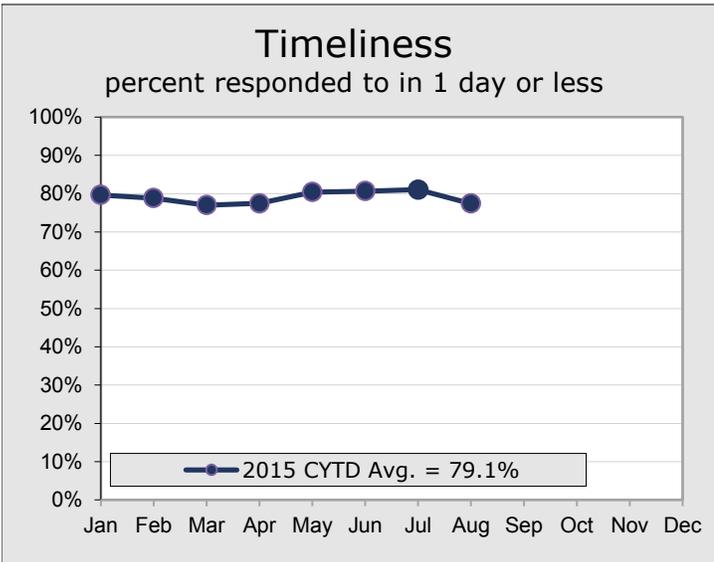
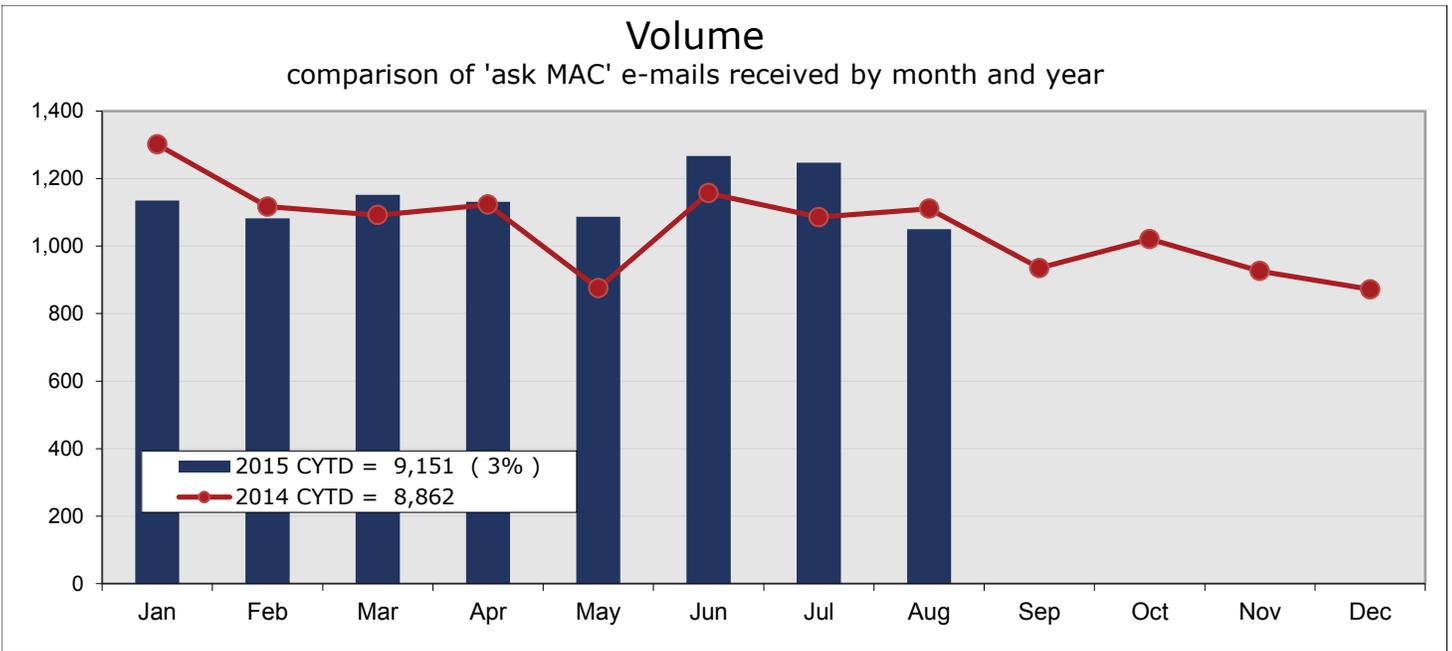


Timeliness (average wait time in minutes)

| | Jan | Feb | Mar | April | May | June | July | Aug | Sept | Oct | Nov | Dec |
|-----------------------|-----|-----|-----|-------|-----|------|------|-----|------|-----|-----|-----|
| Appointments | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | | | | |
| Walk-Ins | 5 | 7 | 6 | 6 | 6 | 5 | 5 | 5 | | | | |
| Reception/MAC Express | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Health Insurance | 6 | 5 | 5 | 5 | 6 | 6 | 5 | 5 | | | | |
| LTD Vendor | 1 | n/a | 0 | n/a | 0 | n/a | 0 | 0 | | | | |

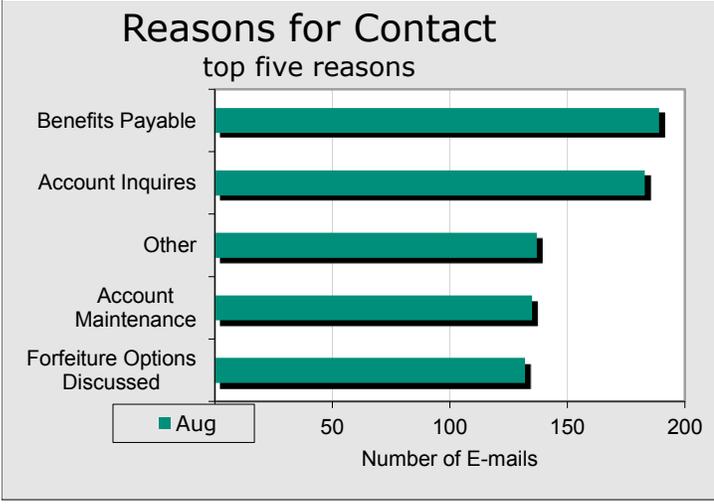
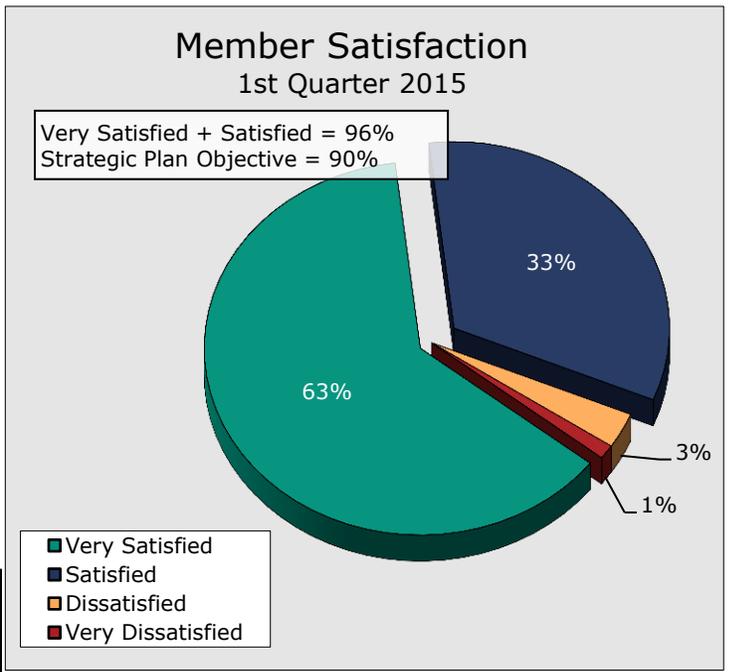


Member Advisory Center: E-Mail

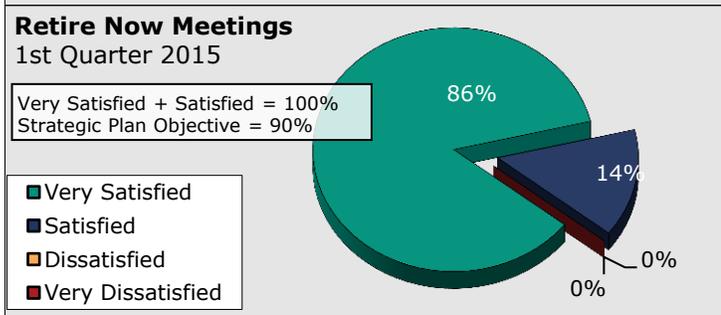
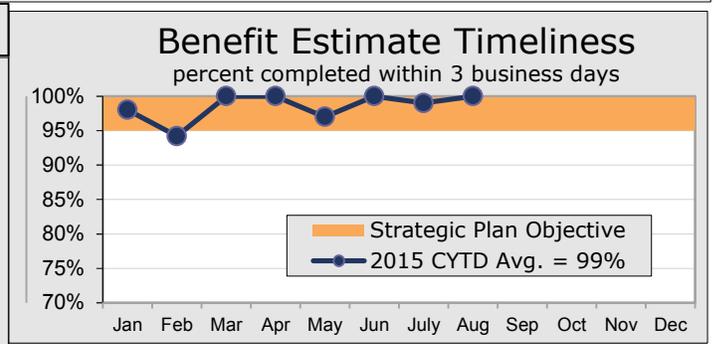
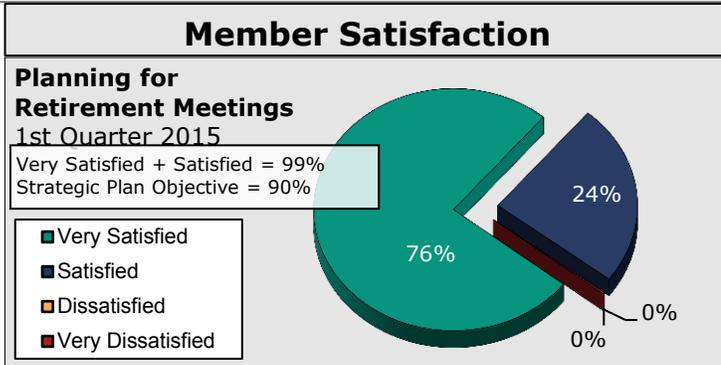
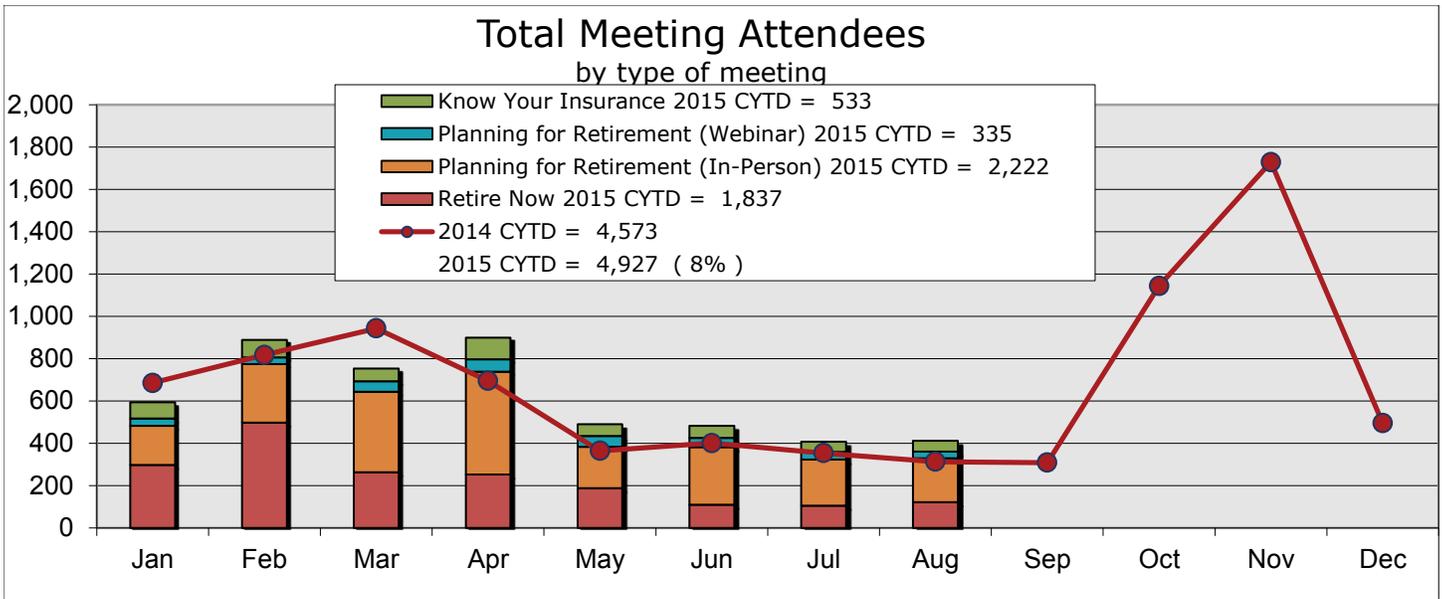


E-mail Timeliness (average response in hours)

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---------|-----|------|------|------|------|-----|------|------|-----|-----|-----|-----|
| Average | 9.7 | 15.6 | 14.9 | 15.9 | 10.7 | 8.1 | 14.0 | 17.7 | | | | |

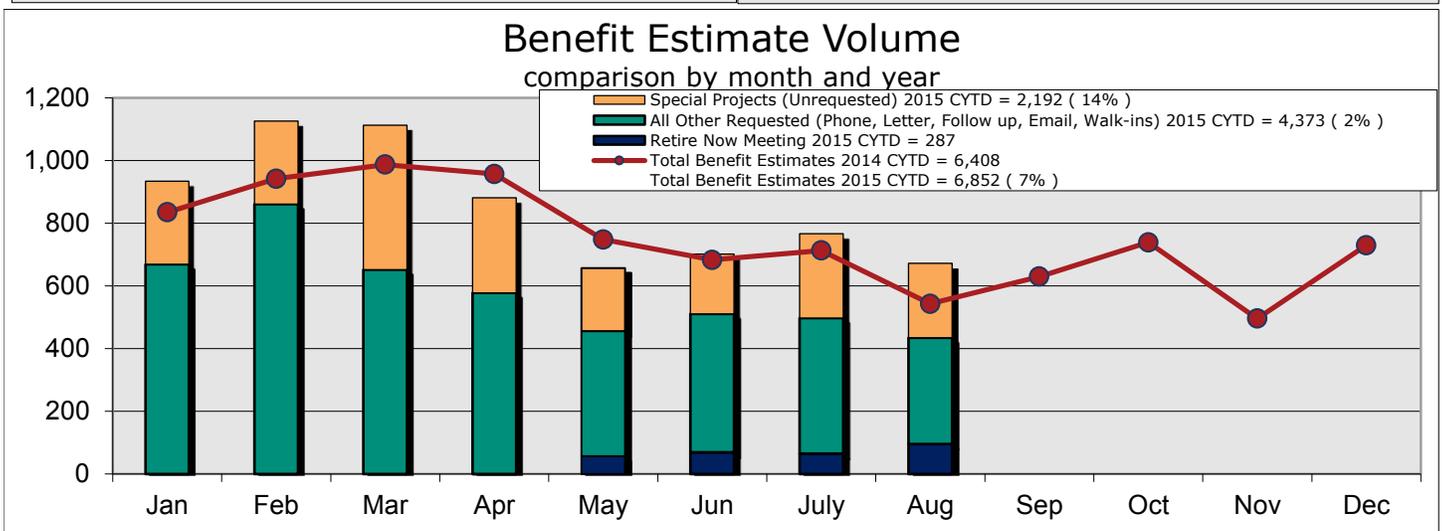
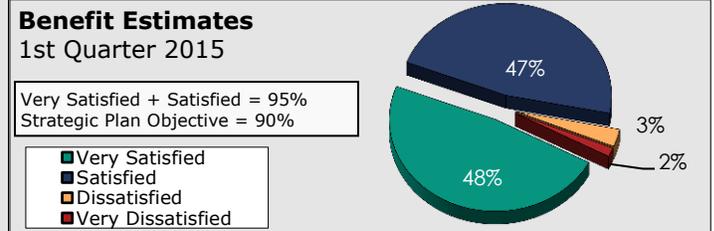


Outreach Education and Benefit Estimates



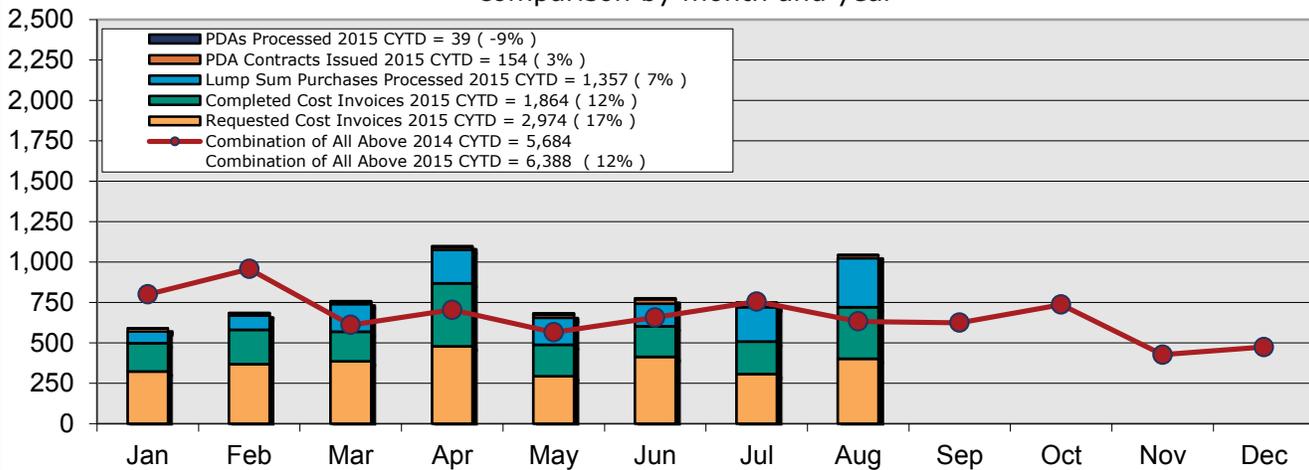
Benefit Estimate Timeliness (average TAT in days)

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Average TAT | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |



Service Purchase

Total Volume comparison by month and year

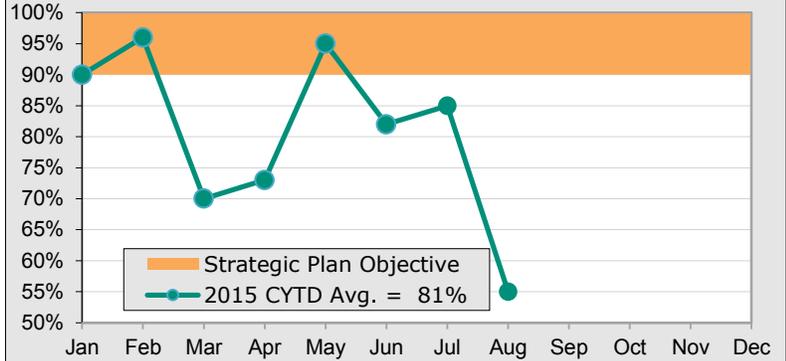


Requests Pending
 as of September 30, 2015
Cost Invoices Pending
 484
Payments Pending
 17

Lump Sum Timeliness percent within 5 business days



Cost Invoices Timeliness percent within 10 business days



Timeliness (average turnaround time in business days)

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2 | 2 | 2 | 1 | 3 | 2 | 2 | 2 | | | | |
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |

Timeliness (average turnaround time in business days)

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5 | 4 | 8 | 10 | 4 | 7 | 9 | 11 | | | | |
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |

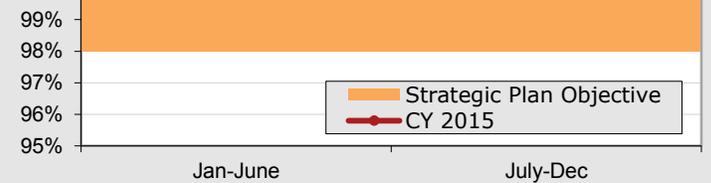
Payroll Deduction Agreement Timeliness percent within 5 business days



Timeliness (average turnaround time in business days)

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 1 | 4 | 2 | 2 | 1 | 1 | 2 | | | | |
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |

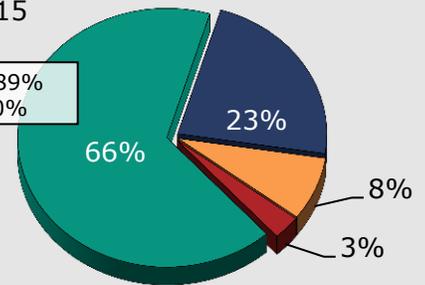
Cost Invoice Quality Rating CY 2015



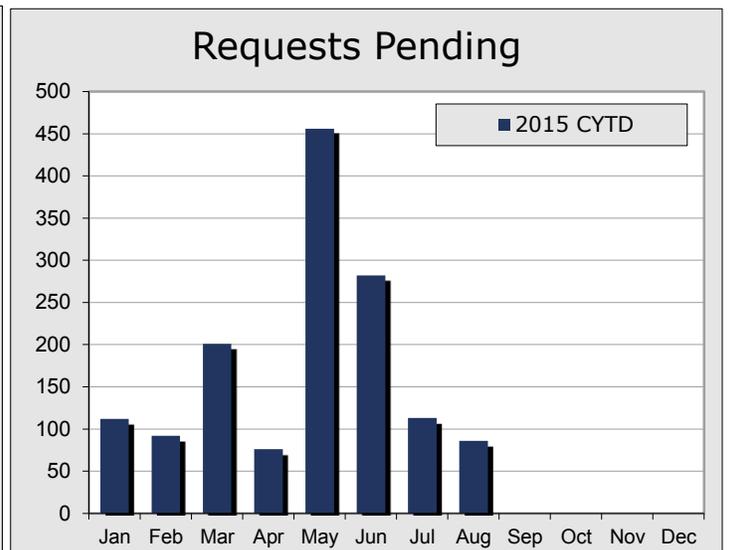
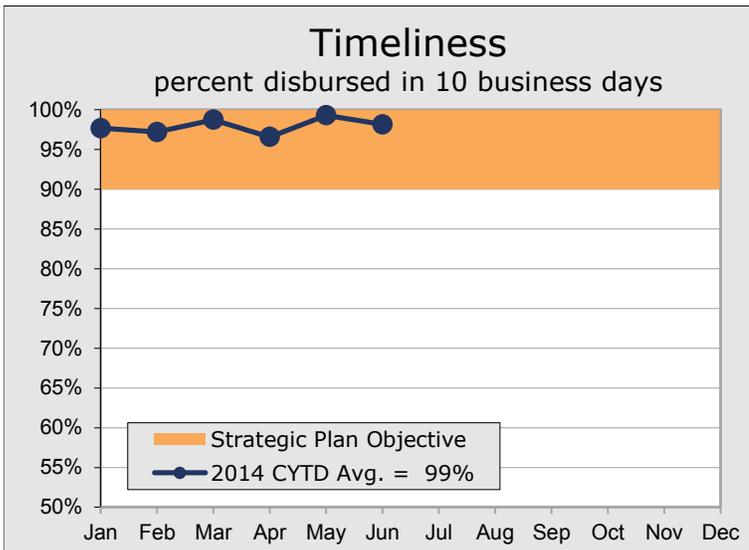
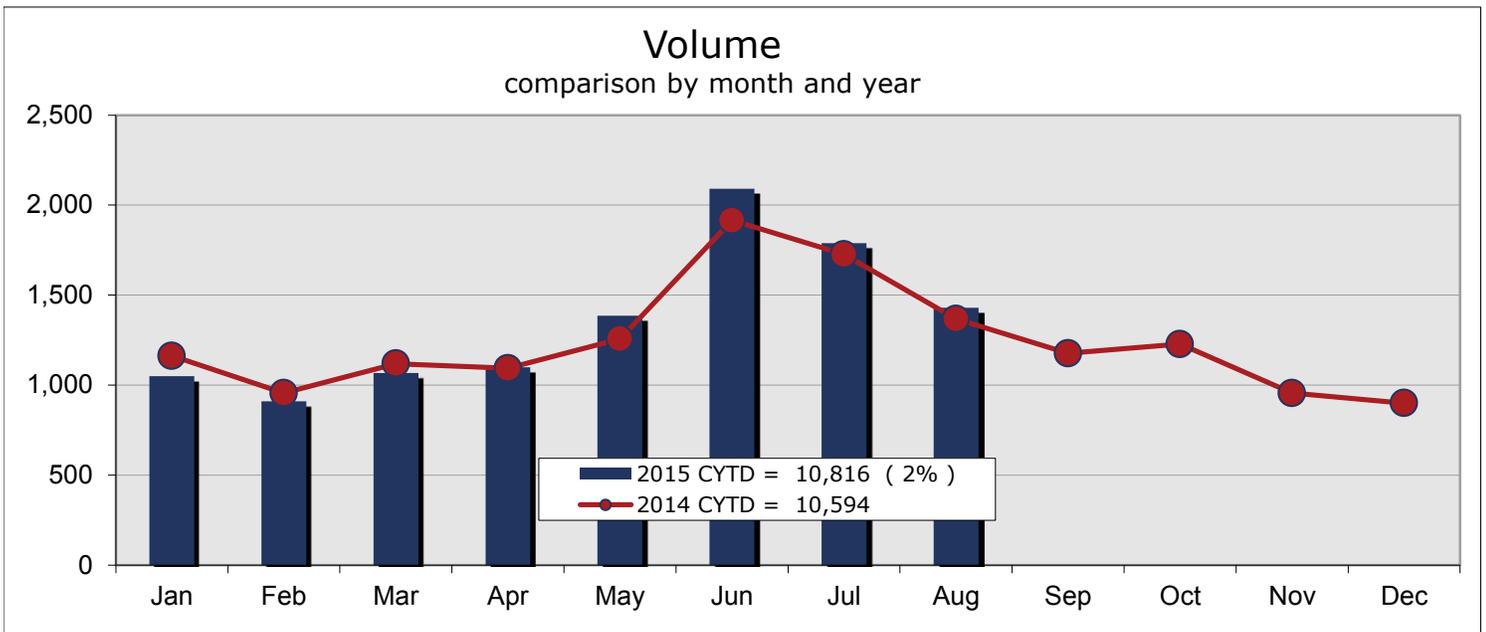
Member Satisfaction 1st Quarter 2015

Very Satisfied + Satisfied = 89%
 Strategic Plan Objective = 90%

- Very Satisfied
- Satisfied
- Dissatisfied
- Very Dissatisfied

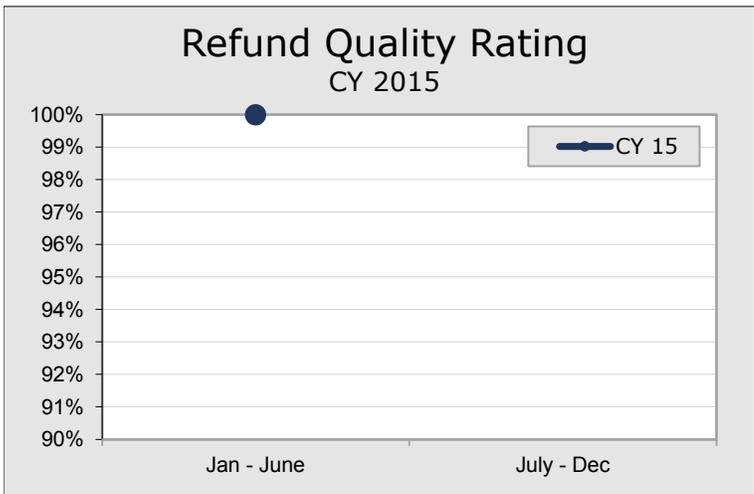
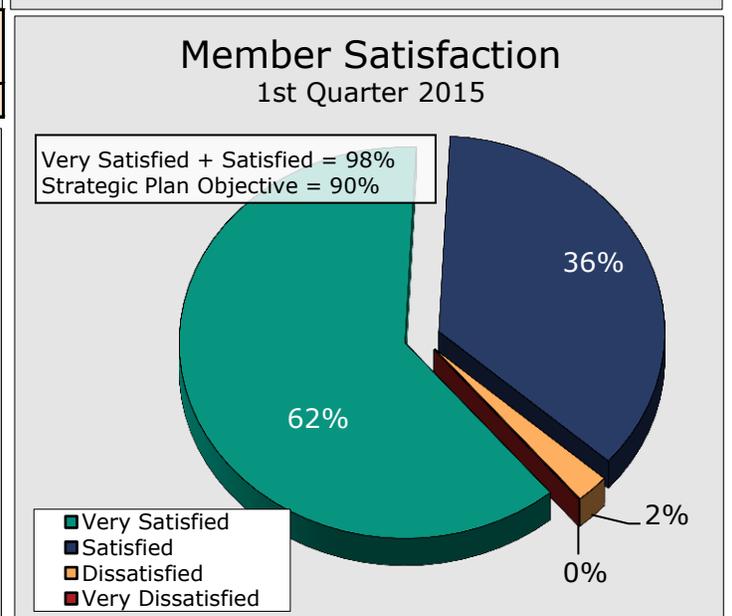


Refunds



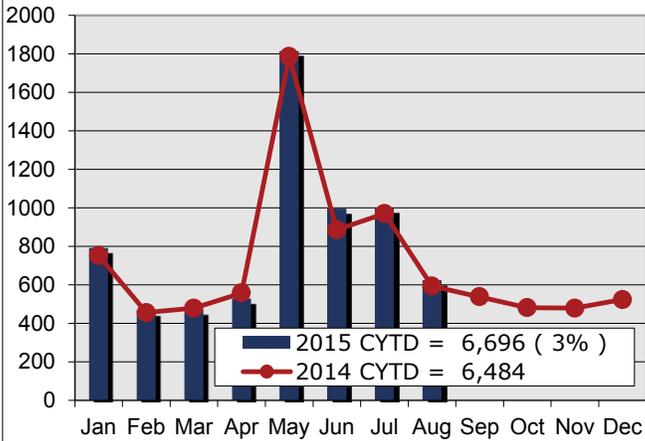
Timeliness (average turnaround time in business days)

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Avg | 2 | 2 | 2 | 2 | 2 | 3 | DNA | DNA | | | | |

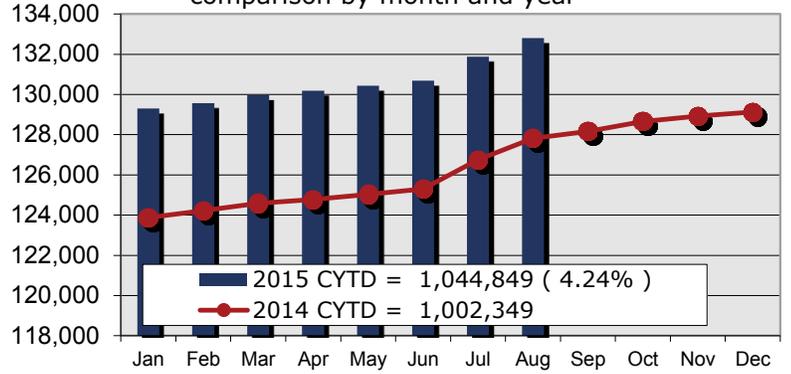


New Retirees

First Payment Volume comparison by month and year



Pension Volume comparison by month and year



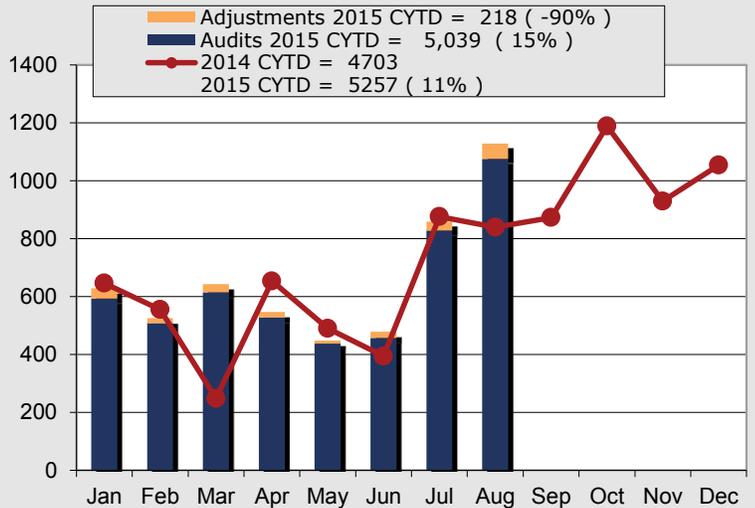
Pension Payment (percent disbursed by 1st of the month)

| | | | | | | | | | | | |
|------|------|------|------|-------|------|------|------|-----|-----|-----|-----|
| 100% | 100% | 100% | 100% | 99.9% | 100% | 100% | 100% | | | | |
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |

First Payment Timeliness percent disbursed in 10 business days



Audits & Adjustments comparison by month and year

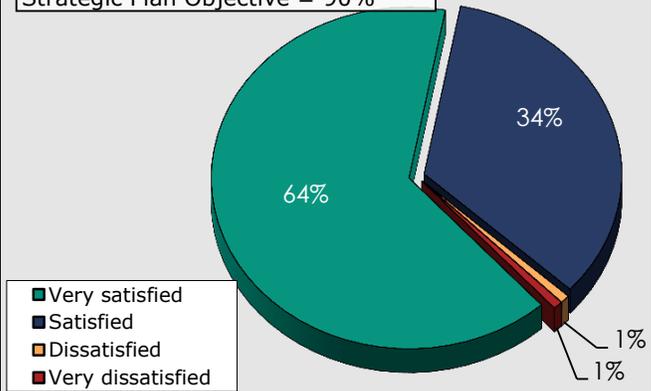


First Payment Timeliness (average turnaround time in days)

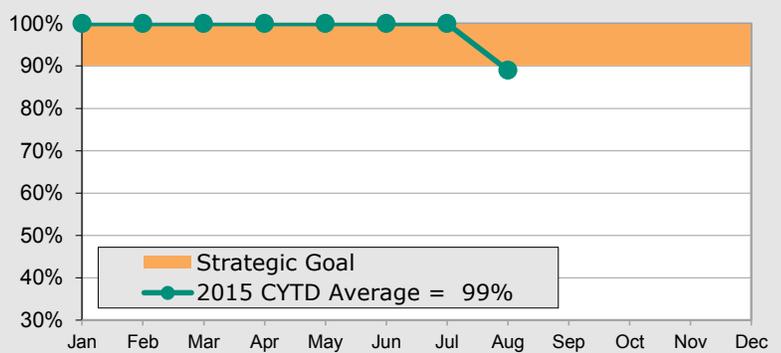
| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 4 | 7 | 8 | 9 | 3 | 6 | 5 | 6 | | | | |
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |

Member Satisfaction 1st Quarter 2015

Very Satisfied + Satisfied = 98%
Strategic Plan Objective = 90%



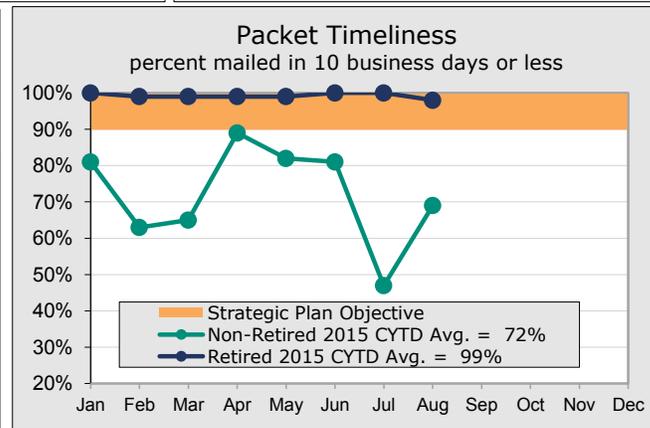
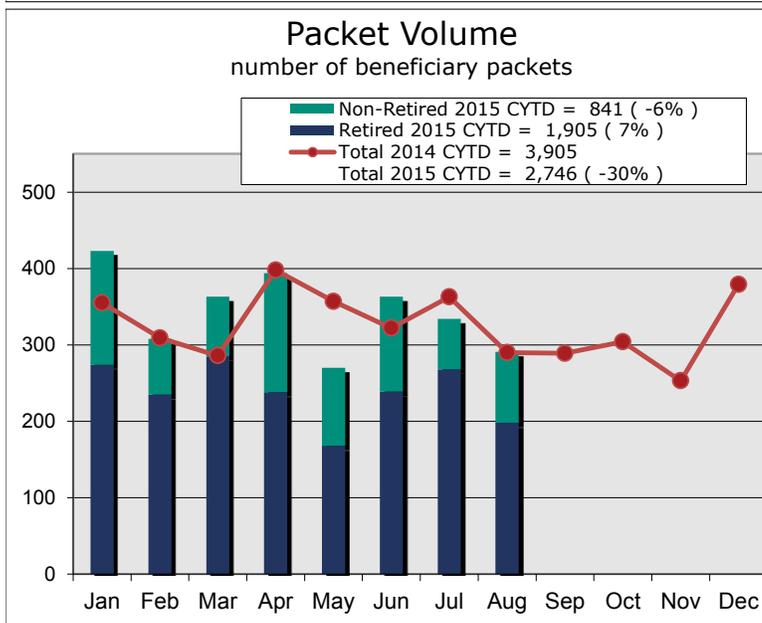
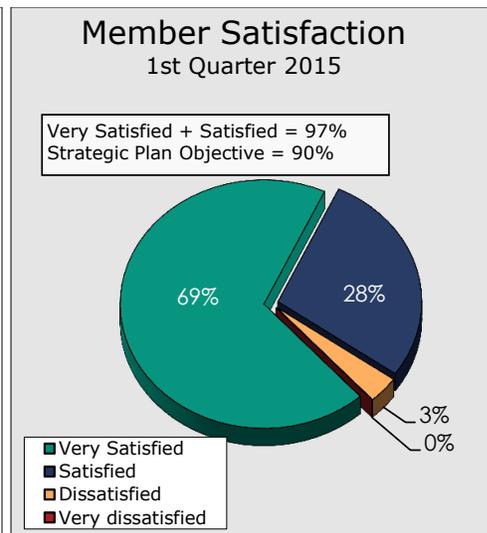
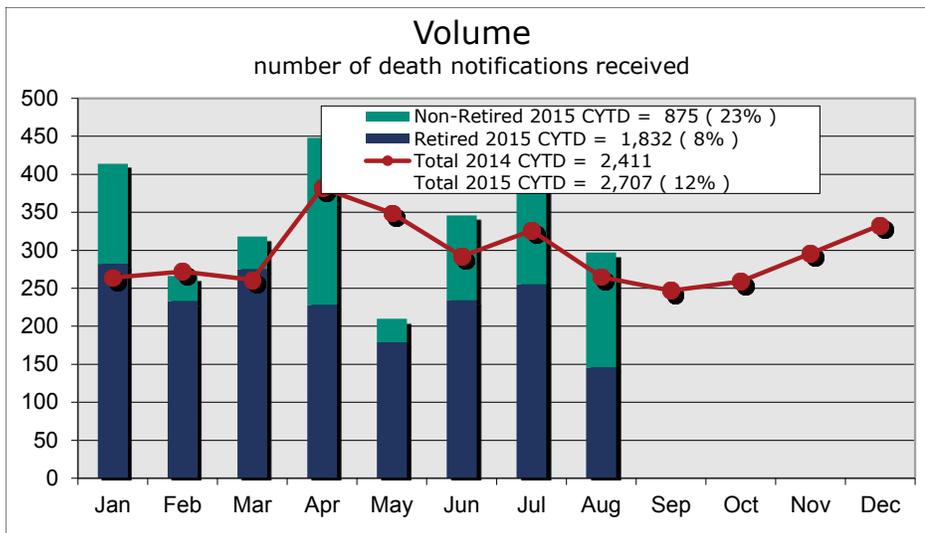
Adjustments Timeliness Percent completed in 20 business days



Adjustments Timeliness (average turnaround time in days)

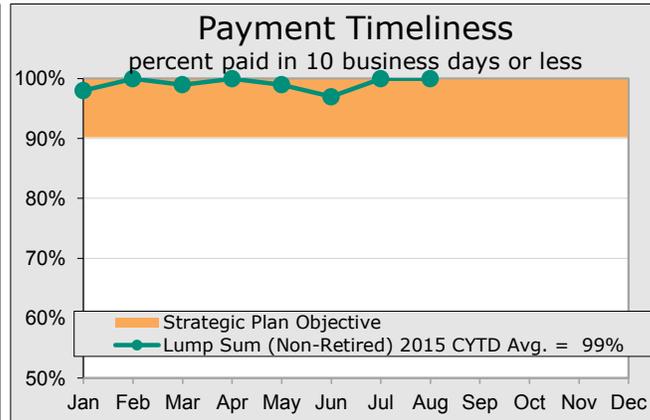
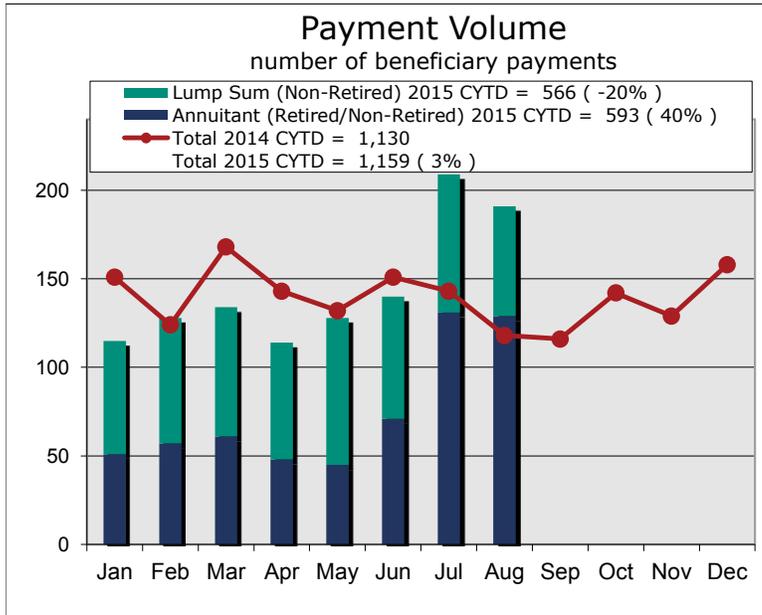
| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5 | 2 | 2 | 2 | 2 | 3 | 4 | 5 | | | | |
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |

Survivor Benefits



Packet Timeliness (average TAT in days)

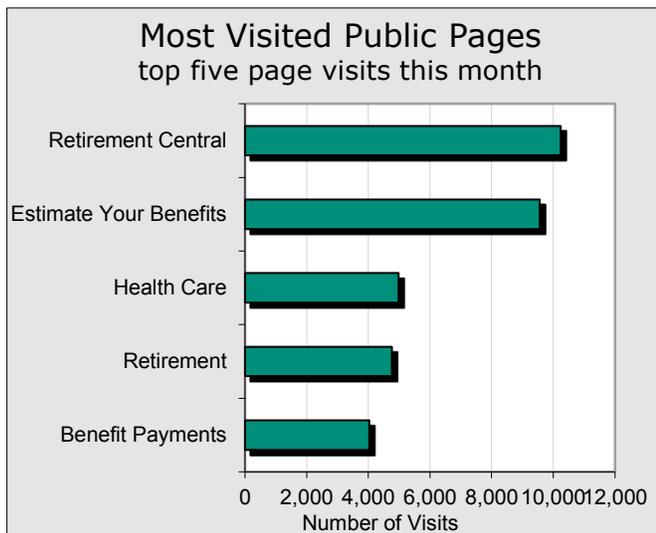
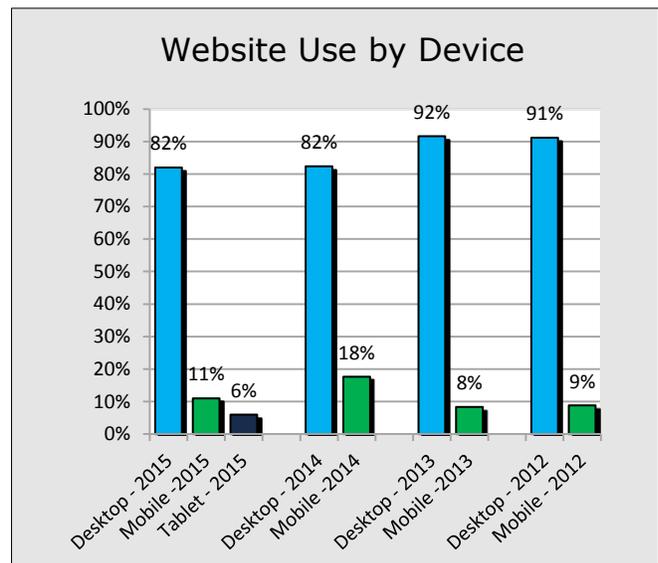
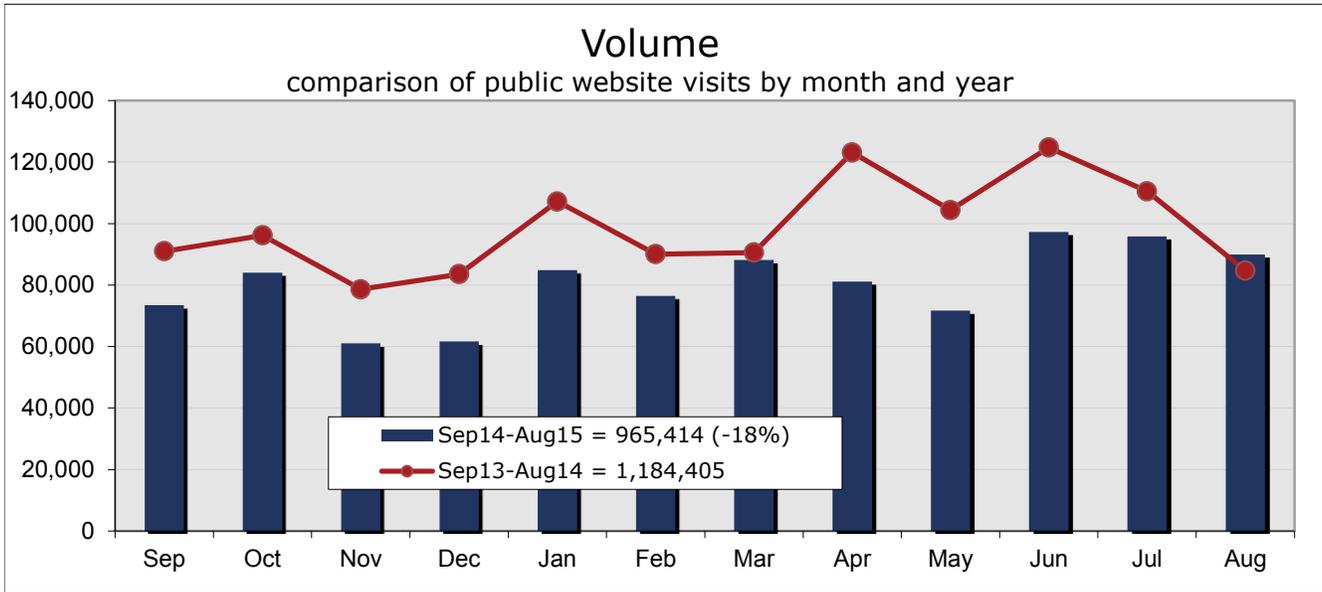
| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Retired | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | |
| Non Retired | 7 | 19 | 16 | 12 | 10 | 13 | 40 | 40 | | | | |



Payment Timeliness (average TAT in days)

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lump Sum (Non-Retired) | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 3 | | | | |

Public Website: www.azasrs.gov



Followers: 1,636 (+1%)

(Most Recent Data)

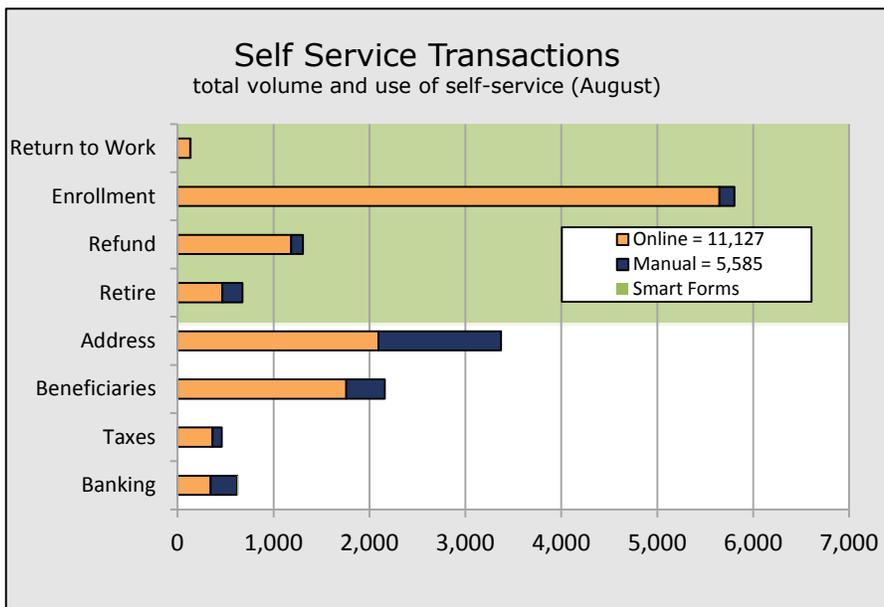
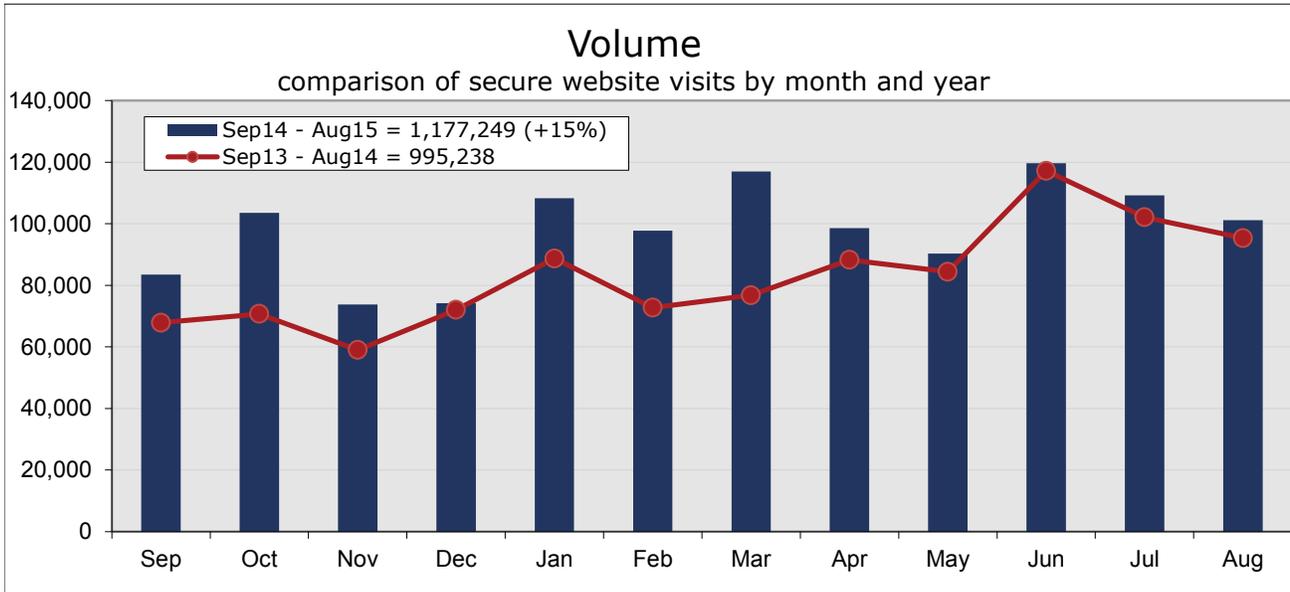
| | Photos | Updates | Links |
|--------------------------|--------|---------|-------|
| Views | 144 | 247 | 240 |
| Clicks | 3 | 9 | 12 |
| Likes, Comments & Shares | 5 | 11 | 4 |

Followers: 227 (+3%)

(Most Recent Data)

- Original Content
- 3rd Party Content

Secure Website: secure.azasrs.gov

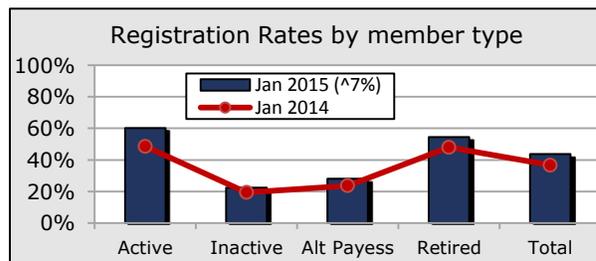
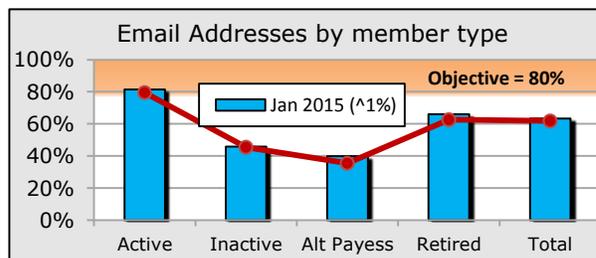
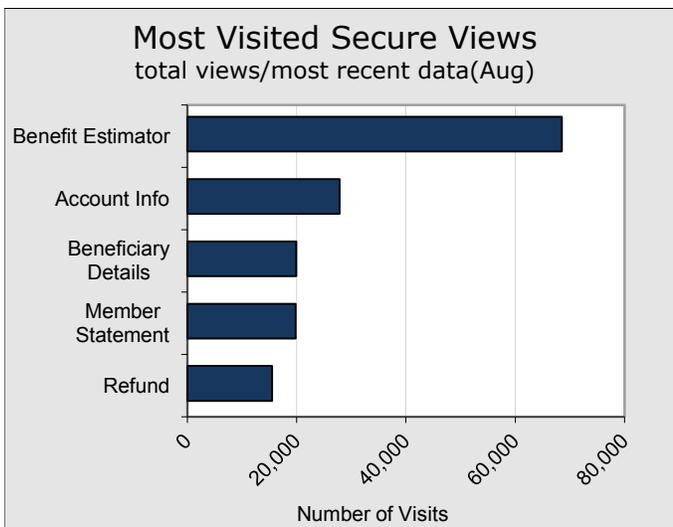


Historical Comparison of Online Usage

| | This month | 12mo Min | 12mo Max | 12mo Avg | Objective |
|--------|------------|----------|----------|----------|-----------|
| RTW | 98% | 39% | 98% | 77% | n/a |
| Enroll | 97% | 89% | 99% | 94% | 99% |
| Ref | 90% | 88% | 98% | 92% | 90% |
| Ret | 69% | 57% | 70% | 66% | 90% |
| Add | 69% | 70% | 86% | 76% | 75% |
| Bene | 81% | 52% | 87% | 71% | 75% |
| Tax | 79% | 68% | 88% | 78% | 75% |
| DD | 55% | 41% | 58% | 50% | 75% |

Total online this month

82%



Arizona State Retirement System
FY 2015 Appropriated Budget
(Final Unaudited)

| | APPROPRIATIONS FISCAL YEAR 2015 | EXPENDED YTD | % EXPENDED |
|--|------------------------------------|----------------------|---------------|
| OPERATING BUDGET | | | |
| Personal Services | \$ 12,757,000 | \$ 11,940,900 | 93.60% |
| Employee Related Expenses | \$ 5,021,000 | \$ 4,774,900 | 95.10% |
| Professional & Outside Services | \$ 1,079,300 | \$ 1,489,900 | 138.04% |
| Travel | \$ 78,600 | \$ 90,700 | 115.39% |
| Other Operating Expenses | \$ 2,684,800 | \$ 2,386,600 | 88.89% |
| Equipment | \$ 389,500 | \$ 432,100 | 110.94% |
| Operating Subtotal | \$ 22,010,200 | \$ 21,115,100 | 95.93% |
| OTHER APPROPRIATIONS | | | |
| Long Term Disability Administration | \$ 2,800,000 | \$ 2,286,800 | 81.67% |
| Oracle Forms and Reports Modernization (Yr. 2) | \$ 4,484,500 | \$ 1,463,600 | 32.64% |
| TOTAL FY 2015 Appropriated Funds | \$ 29,294,700 | \$ 24,865,500 | 84.88% |

| | APPROPRIATIONS PRIOR YEAR | EXPENDED TO DATE | % EXPENDED |
|--|------------------------------|---------------------|---------------|
| PRIOR YEAR LEGISLATIVE APPROPRIATIONS (NON-LAPSING) | | | |
| FY 2014 - Oracle Forms and Reports Modernization (Yr. 1) | \$ 1,390,000 | \$ 1,390,000 | 100.00% |
| FY 2014 - HB 2562 - 401(a) and LTD for Ineligibles | \$ 502,400 | \$ 95,400 | 18.99% |
| FY 2012 - SB 1614 - ASRS Contribution Rate | \$ 600,000 | \$ 595,700 | 99.28% |
| FY 2011 - HB 2389 - ASRS Plan Design Changes | \$ 1,341,700 | \$ 1,247,100 | 92.95% |

| | APPROPRIATIONS REMAINING | EXPENDED YTD | % EXPENDED |
|--|-----------------------------|-----------------|---------------|
| PRIOR YEAR OPERATING APPROPRIATIONS (NON-LAPSING) | | | |
| FY 2011, ASRS Operating Budget & LTD Admin | \$ 796,800 | \$ - | 0.00% |

Arizona State Retirement System
FY 2016 Appropriated Budget
(as of August 31, 2015)

| | APPROPRIATIONS FISCAL YEAR 2016 | EXPENDED YTD | % EXPENDED |
|--|------------------------------------|---------------------|---------------|
| OPERATING BUDGET | | | |
| Personal Services | \$ 13,091,900 | \$ 1,821,200 | 13.91% |
| Employee Related Expenses | \$ 5,063,500 | \$ 720,300 | 14.23% |
| Professional & Outside Services | \$ 1,292,400 | \$ 230,600 | 17.84% |
| Travel | \$ 79,900 | \$ 10,500 | 13.14% |
| Other Operating Expenses | \$ 2,732,800 | \$ 68,900 | 2.52% |
| Equipment | \$ 651,100 | \$ 5,200 | 0.80% |
| Operating Subtotal | \$ 22,911,600 | \$ 2,856,700 | 12.47% |
| OTHER APPROPRIATIONS | | | |
| Long Term Disability Administration | \$ 2,800,000 | \$ - | 0.00% |
| Oracle Forms and Reports Modernization (Yr. 3) | \$ 2,270,000 | \$ 165,500 | 7.29% |
| TOTAL FY 2016 Appropriated Funds | \$ 27,981,600 | \$ 3,022,200 | 10.80% |

| | APPROPRIATIONS PRIOR YEAR | EXPENDED TO DATE | % EXPENDED |
|--|------------------------------|---------------------|---------------|
| PRIOR YEAR LEGISLATIVE APPROPRIATIONS (NON-LAPSING) | | | |
| FY 2015 - Oracle Forms and Reports Modernization (Yr. 2) | \$ 4,484,500 | \$ 1,463,600 | 32.64% |
| FY 2011 - HB 2389 - ASRS Plan Design Changes | \$ 1,341,700 | \$ 1,247,100 | 92.95% |

| | APPROPRIATIONS REMAINING | EXPENDED YTD | % EXPENDED |
|--|-----------------------------|-----------------|---------------|
| PRIOR YEAR OPERATING APPROPRIATIONS (NON-LAPSING) | | | |
| FY 2011, ASRS Operating Budget & LTD Admin | \$ 796,800 | \$ - | 0.00% |

Final Budget Summary for Fiscal Year 2015

Operating Budget

The operating budget information on the previous page is based on funding approved by the Board and the Legislature for fiscal year July 1, 2014 through June 30, 2015. These ASRS operating expenses are distinguished from other areas of ASRS spending authority: such as expenditures for investment management and benefits payments. Administrative salaries and employee benefits, supplies, equipment and ongoing operational costs associated with information and financial systems for the ASRS Board and ASRS employees are funded from the operating budget. Expenditures year to date include all expenditures anticipated and accrued through June 30, 2015.

Other Appropriations

Other appropriations, which are considered part of the annual budget, represent other appropriations for specific programs or services authorized by the Board and the Legislature.

- **Long Term Disability Administration Fund**
The amount appropriated for the administration costs of the LTD program.
- **Oracle Forms and Reports Modernization**
The amount appropriated (non-lapsing) for the second year of the software modernization project. Unspent appropriations are available for use in future years.

Non-Lapsing Appropriations for Legislative Initiatives

The amount appropriated by the Legislature for the implementation of:

- FY 2014 - Oracle Forms and Reports Modernization (Yr. 1)
- FY 2014 - HB 2562 - 401(a) and LTD for Ineligibles
- FY 2012 - SB 1614 - ASRS Contribution Rate
- FY 2011 - HB 2389 - ASRS Plan Design Changes
- FY 2011 - ASRS Operating Budget and LTD Admin
 - HB 2024, Section 93 modified the FY 2011 ASRS appropriations to be non-lapsing appropriations. The ASRS has the ability to utilize the unspent portion of these appropriations in ensuing fiscal years.

Explanation of Columns

- 1) The *Appropriations* column represents funds that have been approved by the Legislature and the ASRS Board for FY 2015, and includes prior year legislative appropriations.
- 2) The *Expended* column represents the expenditures to date.
- 3) The *% Expended* column identifies the portion of each line item that has been expended to date. This column is intended to be a guide to the rate of spending during the fiscal year.

Budget Summary for Fiscal Year 2016 As of August 31, 2015

Operating Budget

The operating budget information on the previous page is based on funding approved by the Board and the Legislature for fiscal year July 1, 2015 through June 30, 2016. These ASRS operating expenses are distinguished from other areas of ASRS spending authority: such as expenditures for investment management and benefits payments. Administrative salaries and employee benefits, supplies, equipment and ongoing operational costs associated with information and financial systems for the ASRS Board and ASRS employees are funded from the operating budget. Expenditures to date include four pay periods (15.4 % of the annual payrolls) of fiscal year 2016.

Other Appropriations

Other appropriations, which are considered part of the annual budget, represent other appropriations for specific programs or services authorized by the Board and the Legislature.

- **Long Term Disability Administration Fund**
The amount appropriated for the administration costs of the LTD program.

- **Oracle Forms and Reports Modernization**
The amount appropriated (non-lapsing) for the third year of the software modernization project.

Non-Lapsing Appropriations for Legislative Initiatives

The amount appropriated by the Legislature for the implementation of:

- FY 2015 - Oracle Forms and Reports Modernization (Yr. 2)
- FY 2011 - ASRS Operating Budget and LTD Admin
 - HB 2024, Section 93 modified the FY 2011 ASRS appropriations to be non-lapsing appropriations. The ASRS has the ability to utilize the unspent portion of these appropriations in ensuing fiscal years.

Explanation of Columns

- 1) The *Appropriations* column represents funds that have been approved by the Legislature and the ASRS Board for FY 2016, and includes prior year legislative appropriations.

- 2) The *Expended* column represents the expenditures to date.

- 3) The *% Expended* column identifies the portion of each line item that has been expended to date. This column is intended to be a guide to the rate of spending during the fiscal year.

ASRS FISCAL YEAR 2015, CONTINUOUSLY APPROPRIATED REPORT

(with summarized Appropriated Expenses)

| DESCRIPTION | FY 2015 ACTUAL EXPENSES (UNAUDITED) | ANNUAL EXPENSES AS % OF TOTAL AUM | ANNUAL EXPENSES PER MEMBER |
|--|---|--------------------------------------|-------------------------------|
| Custodial Banking, Security Lending and Master Cash STIF Fees | 2,900,000 | | |
| Internal Investment Management (Salaries and Benefits) | 1,492,000 | | |
| <i>Public Markets</i> | | | |
| External Investment Management Fees | 75,691,000 | | |
| Transactional and Other Fees | 1,970,000 | | |
| <i>Private Markets</i> | | | |
| Private Debt and Equity Management Fees | 39,618,000 | | |
| Private Debt and Equity Performance Incentive and Other Fees | 57,618,000 | | |
| Real Estate, Farmland and Timber and Infrastructure Management Fees | 24,042,000 | | |
| Real Estate, Farmland and Timber and Infrastructure Performance Incentive and Other Fees | 38,816,000 | | |
| Opportunistic Debt and Equity Management Fees | 11,845,000 | | |
| Opportunistic Debt and Equity Performance Incentive and Other Fees | 5,803,000 | | |
| Investment Management Expenses | \$ 259,795,000 | 0.740% | \$ 472.10 |
| Investment Consulting Services | 3,887,000 | | |
| Investment Related Legal Services | 1,305,000 | | |
| Investment Electronic Information Services | 1,550,000 | | |
| External Financial Consulting Services | 112,000 | | |
| Investment Related Consulting, Legal and Information Services | \$ 6,854,000 | 0.020% | \$ 12.46 |
| Rent | 1,405,000 | 0.004% | \$ 2.55 |
| Actuarial Consulting Fees | 896,000 | 0.003% | \$ 1.63 |
| Retiree Payroll (Disbursement Administration) | 2,655,000 | 0.008% | \$ 4.82 |
| Total Continuously Appropriated Expenses | \$ 271,605,000 | 0.774% | \$ 493.56 |
| *Total Current Year Appropriated Expenses | \$ 25,280,500 | 0.072% | \$ 45.94 |
| <i>*Includes current year appropriation and prior year non-lapsing appropriations of \$415,000</i> | | | |
| Total Expenses (Continuously Appropriated and Appropriated) | \$ 296,885,500 | 0.846% | \$ 539.50 |

ASRS Estimated Total Market Value of Assets Under Management (AUM) as of June 30, 2015
ASRS Total Membership as of June 30, 2014

\$ 35,101,600,000
550,300

ASRS FISCAL YEAR 2016, CONTINUOUSLY APPROPRIATED REPORT

(with summarized Appropriated Expenses)

| DESCRIPTION | EXPENDED YTD as of 8/31/15 | ESTIMATED ANNUAL EXPENSES (Projections updated quarterly) | EST. ANNUAL EXPENSES AS % OF TOTAL AUM | EST. ANNUAL EXPENSES PER MEMBER |
|--|-------------------------------|---|--|---------------------------------------|
| Custodial Banking, Security Lending and Master Cash STIF Fees | 138,200 | 3,077,000 | | |
| Internal Investment Management (Salaries and Benefits) | 365,000 | 1,750,900 | | |
| <i>Public Markets</i> | | | | |
| External Investment Management Fees | | 70,320,800 | | |
| Transactional and Other Fees | | 2,109,600 | | |
| <i>Private Markets</i> | | | | |
| Private Debt and Equity Management Fees | | 45,760,000 | | |
| Private Debt and Equity Performance Incentive and Other Fees | | 57,200,000 | | |
| Real Estate, Farmland and Timber and Infrastructure Management Fees | | 21,435,300 | | |
| Real Estate, Farmland and Timber and Infrastructure Performance Incentive and Other Fees | | 26,794,100 | | |
| Opportunistic Debt and Equity Management Fees | | 6,300,000 | | |
| Opportunistic Debt and Equity Performance Incentive and Other Fees | | 3,150,000 | | |
| Investment Management Expenses | \$ 503,200 | \$ 237,897,700 | 0.678% | \$ 432.31 |
| Investment Consulting Services | | 4,388,500 | | |
| Investment Related Legal Services | | 1,075,000 | | |
| Investment Electronic Information Services | 112,000 | 2,000,000 | | |
| External Financial Consulting Services | | 75,000 | | |
| Investment Related Consulting, Legal and Information Services | \$ 112,000 | \$ 7,538,500 | 0.021% | \$ 13.70 |
| Rent | \$ 248,000 | \$ 1,505,000 | 0.004% | \$ 2.73 |
| Actuarial Consulting Fees | \$ - | \$ 925,000 | 0.003% | \$ 1.68 |
| Retiree Payroll (Disbursement Administration) | \$ 24,000 | \$ 3,655,400 | 0.010% | \$ 6.64 |
| Total Continuously Appropriated Expenses | \$ 887,200 | \$ 251,521,600 | 0.717% | \$ 457.06 |
| *Total Current Year Appropriated Expenses | \$ 3,022,200 | \$ 28,981,600 | 0.083% | \$ 52.67 |
| <small>* Includes estimated prior year non-lapsing appropriations of \$1,000,000 related to the Oracle Forms and Reports Modernization Project</small> | | | | |
| Total Expenses (Continuously Appropriated and Appropriated) | \$ 3,909,400 | \$ 280,503,200 | 0.799% | \$ 509.73 |

ASRS Estimated Total Market Value of Assets Under Management (AUM) as of June 30, 2015
ASRS Total Membership as of June 30, 2014

\$ 35,101,600,000
550,300

Continuously Appropriated Expenses for FY 2015

Final Estimated Expenditures

The Arizona State Retirement System (ASRS) investment and administrative costs are expended in accordance with Arizona Revised Statutes (A.R.S.), Title 38, Chapter 5, Article 2, Section 38-721. A.R.S. Section 38-721, Subsection C, lists specific expenditures that are continuously appropriated and are allowable in the amount deemed necessary by the Board.

These specific expenditures are described below:

1. Investment management fees and related consulting fees necessary to meet the Board's investment objectives

Internal Investment management

- ASRS Investment Management Division staff base salaries and employer portion of staff benefits and payroll taxes.

External investment management fees

- Public Markets
 - External investment management fees (public).
 - Transactional and other fees include foreign taxes and commissions on derivatives and other incidental costs.
- Private Markets
 - Private Debt and Equity, Real Estate, Farmland and Timber and Infrastructure and Opportunistic Debt and Equity investment management fees.
 - Performance incentive fees include performance incentives and carried interest, which are only paid upon successful performance of the manager after other return hurdles are met. Other fees are the ASRS proportional share of the transactional and operational cost of the underlying investment structure. Each of these fees is only paid if earned or incurred, and therefore may vary each quarter.

Consulting fees

- Includes investment related consulting and legal fees, electronic information services and subscriptions, custodial banking administrative fees, external auditing service fees.

2. Rent

- Costs associated with rent as tenants for occupancy in the 3300 Tower in Phoenix and in the satellite office in Tucson.

3. Actuarial consulting fees

- Costs associated with actuarial services related to plan design, administration and valuations.

4. Retiree Payroll

- Costs associated with administering retiree pension benefits and disbursements, including third-party payroll administration fees, postage and benefit related consulting fees.

The report includes final estimated (unaudited) expenditures for fiscal year 2015.

Continuously Appropriated Expenses for FY 2016 Estimated Expenditures

The Arizona State Retirement System (ASRS) investment and administrative costs are expended in accordance with Arizona Revised Statutes (A.R.S.), Title 38, Chapter 5, Article 2, Section 38-721. A.R.S. Section 38-721, Subsection C, lists specific expenditures that are continuously appropriated and are allowable in the amount deemed necessary by the Board.

These specific expenditures are described below:

1. Investment management fees and related consulting fees necessary to meet the Board's investment objectives

Internal Investment management

- ASRS Investment Management Division staff base salaries and employer portion of staff benefits and payroll taxes.

External investment management fees

- Public Markets
 - External investment management fees (public).
 - Transactional and other fees include foreign taxes and commissions on derivatives and other incidental costs.
- Private Markets
 - Private Debt and Equity, Real Estate, Farmland and Timber and Infrastructure and Opportunistic Debt and Equity investment management fees.
 - Performance incentive fees include performance incentives and carried interest, which are only paid upon successful performance of the manager after other return hurdles are met. Other fees are the ASRS proportional share of the transactional and operational cost of the underlying investment structure. Each of these fees is only paid if earned or incurred, and therefore may vary each quarter.

Consulting fees

- Includes investment related consulting and legal fees, electronic information services and subscriptions, custodial banking administrative fees, external auditing service fees.

2. Rent

- Costs associated with rent as tenants for occupancy in the 3300 Tower in Phoenix and in the satellite office in Tucson.

3. Actuarial consulting fees

- Costs associated with actuarial services related to plan design, administration and valuations.

4. Retiree Payroll

- Costs associated with administering retiree pension benefits and disbursements, including third-party payroll administration fees, postage and benefit related consulting fees and the beginning phase of the ASRS Benefit Disbursement project.

The report includes projected expenditures for the current fiscal year. Actual expenditures are reported monthly and estimated annual expenses are reviewed and adjusted quarterly. The ASRS Estimated Total Market Value of Assets Under Management (AUM) and ASRS Total Membership values are updated as period ending amounts are finalized.

**Arizona State Retirement System
Staffing Report
(August 31, 2015)**

| ASRS by Division | 251 Full Time Equivalents (FTEs) | New Hires | New Exits | Vacancies | Vacancy Rate |
|--|----------------------------------|-------------|-------------|--------------|---------------|
| Administrative Services Division (ASD) | 16 | 0.0 | 0.0 | 1.5 | 9.38% |
| Director's Office (DIR) | 15 | 0.0 | 0.0 | 0.0 | 0.00% |
| External Affairs (EAD) | 3 | 0.0 | 0.0 | 0.0 | 0.00% |
| Financial Services (FSD) | 62 | 0.0 | 2.0 | 12.75 | 20.56% |
| Technology Services (TSD) | 52 | 2.0 | 2.0 | 8.0 | 15.38% |
| Internal Audit (IAD) | 6 | 0.0 | 1.0 | 2.0 | 33.33% |
| Investment Management (IMD) | 11 | 0.0 | 0.0 | 1.0 | 9.09% |
| Member Services (MSD) | 86 | 0.0 | 0.0 | 2.75 | 3.20% |
| | 251 | 2.00 | 5.00 | 28.00 | 11.16% |

| Turnover | August 2015 New Hires | August 2015 Exits | Total Exits (Last 12 Months) | Annualized Turnover % |
|----------|-----------------------|-------------------|------------------------------|-----------------------|
| | 2.0 | 5.0 | 27.25 | 11.78% |

Recruitments

Beginning February 2015, all ASRS recruitments were placed on hold until further notice due to the State of Arizona Hiring Freeze. Specific ASRS positions are critical to the core functions and operations of the agency and if left unfilled will negatively impact the agency's ability to meet goals and objectives. Recruitment for these "mission critical" positions may proceed after hiring supervisors complete and submit appropriate justification documents and upon approval of the agency director. In some instances, these additional steps have extended the recruitment turnaround time and contributed to the yellow or red status of some business units as noted in the following pages.

To date, twenty-nine positions have been approved as Mission Critical.

- Seventeen positions have been filled
 - Filled Internally (Current ASRS employees have been hired into the vacant positions, no change to ASRS FTE count)
 - FSD Accountant II, FSD Accounting Analyst (start date 08/15/2015), FSD Accounting Technology Specialist, FSD Investment Accountant, FSD Management Analyst III, FSD Membership Accounting Manager, MSD Retirement Advisor Supervisor
 - Filled Externally (New employee to the ASRS hired into the vacant position, increase to ASRS FTE count)
 - AUD Audit Officer (start date 09/14/2015), MSD Retirement Advisor Seniors (3), MSD Retirement Benefit Technician, TSD Senior Information Security Engineer, TSD Network Specialist II, TSD IT Security Engineer, TSD Software Engineers (2)
- Ten positions are under recruitment – FSD Accountant I's (2), FSD Accountant II's (2), FSD Fiscal Services Specialist III, TSD Filenet Workflow Developer, TSD Information Security Officer, TSD Project Manager/Business Analyst, TSD SR Automation Developer, and TSD Technical Lead,
- Two recruitments have been put on hold - FSD Management Analyst IV and TSD Information Security Engineer

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

| Agency Divisions | Services and Functions | Staffing Impact | Comments |
|--|--|-----------------|--|
| Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact | | | |
| MSD | MAC (Call Center) | ● ○ ○ | |
| MSD | One-on-one Counseling (Appointments/Walk-ins) | ● ○ ○ | |
| MSD | E-mail and Written Correspondence | ● ○ ○ | |
| MSD | Outreach Education | ● ○ ○ | |
| MSD | Tucson: Appointments/Walk-ins/Outreach | ● ○ ○ | |
| MSD | Benefit Estimates | ● ○ ○ | |
| MSD | Employer Relations | ● ○ ○ | |
| MSD | Health Insurance/LTD Benefits Administration and Communication | ● ○ ○ | |
| MSD | Survivor Benefit Processing | ● ○ ○ | |
| MSD | Refund Processing | ● ○ ○ | |
| MSD | New Retiree Processing | ● ○ ○ | |
| MSD/FSD | Service Purchase Processing | ○ ● ○ | The Service Purchase process is going through a modernization project which is requiring significant staffing resources. Greater than normal risk will remain until the Service Purchase project is completed. |

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

| Agency Divisions | Services and Functions | Staffing Impact | Comments |
|---|--|-----------------|--|
| Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact | | | |
| FSD | Monthly Pension Payroll Processing | ● ○ ○ | |
| FSD | New Retiree Processing | ○ ○ ● | During August 2015, the New Retiree strategic objectives were not met. Current staffing levels are unable to meet the business needs due to four vacant positions and an increased New Retiree volume. Recruitment has begun to fill four vacant positions. One FTE separated in August. Negative impact will remain until vacant positions are filled and staff are fully trained. |
| FSD | Survivor Benefit Processing | ● ○ ○ | |
| FSD | Records Management (data processing/imaging) | ● ○ ○ | The mailroom and printing team are meeting work expectations when all staff are present. During leave requests and unexpected absences a Network Specialist I is filling in for the Mailroom/Printing Specialist. Review and analysis of missing member data including an outreach plan to employers regarding missing member enrollments is on hold until the Records Management Supervisor position is filled. |
| FSD | LTD/Health Benefit Supplement Processing | ○ ● ○ | During the month of August one of two Fiscal Services Specialist III positions was vacated within the FSD Health Insurance team. With this change in staffing and the onset of ADOA and ASRS HI open enrollment, the team will be at a greater risk of meeting their strategic goals and strategic priorities. |
| FSD | Transfer Processing | ● ○ ○ | |
| FSD | General Accounting | ● ○ ○ | |
| FSD | Contribution Collections and Posting | ○ ● ○ | During the month of August one of four Fiscal Services Specialist III positions was vacated within the FSD Contribution Accounting Team. |

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

| Agency Divisions | Services and Functions | Staffing Impact | Comments |
|--|---|---|--|
| Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact | | | |
| | | | The team also has a relatively new employee who is still in the process of training. Greater than normal risk will remain until the vacant position is filled. |
| TSD | Network Support |  | The Network Support team continues to struggle to meet their business needs and strategic objectives due to insufficient staffing. The Information Security Officer separated in August and recruitment is underway. The remaining security position recruitments will resume once the Information Security Officer recruitment has been completed. Greater than normal risk will remain until the remaining positions are filled and staff is fully trained. |
| TSD | Business Applications Development and Support |  | The planned workload requires a complement of 44 total resources (31 FTEs and 13 external resources). Our current complement of resources for August 2015 was 40 (26 FTEs and 14 external resources). A full time FileNet Workflow developer and an external staff System Tester separated in August 2015. Another external staff Java developer will be leaving ASRS in September. Two full time Java developers started in August 2015. One external staff Oracle developer started in August. Two external staff Report developers will start in September 2015. Recruitment for the full time Project Manager/Business Analyst position is currently underway. Jobs ads will be placed for full time Technical Lead, Workflow developer and System Tester positions. External recruitments for System Tester and Java developer are underway. In summary, over the past several of months, we have lost 7 resources (4 full time and 3 external staff), we have hired 5 resources (2 full time and 3 external staff) and we are recruiting for 6 resources (4 full time and 2 external staff). This all adds up to a lot of lost institutional knowledge, a lot of orientation for new hires and a lot of recruiting for vacant positions. |
| IMD | Investment Management |  | |

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

| Agency Divisions | Services and Functions | Staffing Impact | Comments |
|---|-------------------------------|-----------------|---|
| Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact | | | |
| DIR | Board/Executive Staff Support | ●○○○ | |
| DIR | Strategic Planning/Analysis | ●○○○ | |
| DIR | Strategic Communications | ●○○○ | |
| DIR | Public Affairs | ●○○○ | |
| IA | Internal Audit | ●○○○ | |
| EA | Rule Writing | ●○○○ | |
| EA | Legislative Relations | ●○○○ | |
| ASD | Human Resources | ●○○○ | |
| ASD | Training and Development | ●○○○ | |
| ASD | Contracts and Procurement | ○○●○ | Current staffing struggled to meet the strategic objectives in August 2015 due to the combined effect of the vacancy of the Chief Procurement Officer role, (that had previously been provided by ADOA), and the vacant ASRS Procurement Officer position. While a current ASRS team member is currently assuming the role of Chief Procurement Officer along with other duties, mission critical status will be requested in order to begin recruitment for the Procurement Officer position in September 2015. Greater than normal risk will remain until additional staffing has been hired and trained. |

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

| Agency Divisions | Services and Functions | Staffing Impact | Comments |
|---|------------------------|-----------------|----------|
| Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact | | | |
| ASD | Facilities Management | ● ○ ○ | |
| ASD | Budget Administration | ● ○ ○ | |

ARIZONA STATE RETIREMENT SYSTEM
COMBINED STATEMENT OF CHANGES IN TOTAL FUND CASH
FOR THE MONTH ENDED AUGUST 31, 2015

| | Retirement Plan Fund | Retirement System Fund | Health Benefit Supplement Fund | Long-Term Disability Fund | Current Period August | Fiscal 2016 YTD August | Fiscal 2015 YTD August |
|--|----------------------------|------------------------------|--------------------------------------|---------------------------------|--------------------------|---------------------------------|---------------------------------|
| ADDITIONS | | | | | | | |
| Contributions | | | | | | | |
| Member contributions | \$ 69,162,380 | \$ 2,813 | \$ - | \$ 731,671 | \$ 69,896,864 | \$ 139,545,908 | \$ 141,214,323 |
| Employer contributions | 68,100,604 | 2,813 | 3,051,348 | 731,791 | 71,886,556 | 143,177,807 | 140,947,455 |
| Alternative contributions (ACR) | 1,492,015 | - | 21,152 | 9,762 | 1,522,929 | 3,020,984 | 3,062,999 |
| Transfers from other plans | 165,389 | - | - | - | 165,389 | 227,250 | 46,317 |
| Purchased service | 2,003,893 | - | - | - | 2,003,893 | 5,571,362 | 5,108,273 |
| TOTAL CONTRIBUTIONS | 140,924,280 | 5,626 | 3,072,500 | 1,473,225 | 145,475,631 | 291,543,311 | 290,379,367 |
| DEDUCTIONS | | | | | | | |
| Investment management fees | 3,365,859 | - | - | - | 3,365,859 | 13,490,151 | 17,455,271 |
| Custody fees | - | - | - | - | - | - | - |
| Consultant and legal fees | - | - | - | - | - | - | 251,814 |
| Internal investment activity expense | 6,022 | - | - | - | 6,022 | 121,412 | 245,643 |
| Retirement and disability benefits | 230,591,836 | 3,195,781 | 7,977,841 | 5,118,814 | 246,884,272 | 493,800,485 | 474,758,711 |
| Survivor benefits | 2,582,258 | 7,209 | - | - | 2,589,467 | 5,630,678 | 7,120,073 |
| Refunds to withdrawing members, including interest | 26,713,065 | - | - | - | 26,713,065 | 60,067,038 | 55,414,296 |
| Administrative expenses | 2,036,829 | - | - | 40 | 2,036,870 | 4,416,960 | 4,867,425 |
| Transfers to other plans | 172,399 | - | - | - | 172,399 | 189,011 | 183,764 |
| Other | 9,050 | - | - | - | 9,050 | 9,610 | 4,238 |
| TOTAL DEDUCTIONS | 265,477,318 | 3,202,990 | 7,977,841 | 5,118,854 | 281,777,003 | 577,725,345 | 560,301,236 |
| INCREASE (DECREASE) | (124,553,038) | (3,197,364) | (4,905,341) | (3,645,629) | (136,301,372) | (286,182,034) | (269,921,868) |
| From securities lending activities: | | | | | | | |
| Security loan program | 462,857 | - | - | - | 462,857 | 1,241,912 | 263,612 |
| Security loan interest expense / (Rebate) | (101,149) | - | - | - | (101,149) | (405,773) | (60,140) |
| Net income from securities lending activities | 564,006 | - | - | - | 564,006 | 1,647,685 | 323,752 |
| Capital Calls / (Distributions) | | | | | | | |
| Farmland and Timber | - | - | - | - | - | 12,144,186 | - |
| Infrastructure | - | - | - | - | - | - | - |
| Opportunistic Debt | (1,155,746) | (11,795) | (52,537) | - | (1,220,078) | 44,522,529 | 67,361,361 |
| Opportunistic Equity | - | - | - | - | - | 8,831,614 | (17,159,695) |
| Private Debt | 61,585,363 | 591,752 | 2,805,988 | - | 64,983,103 | 101,229,432 | 41,300,557 |
| Private Equity | 56,176,472 | - | 2,476,909 | - | 58,653,381 | 81,866,543 | 57,521,939 |
| Real Estate | (6,464,974) | (63,015) | (293,047) | - | (6,821,035) | 72,838,562 | 43,643,288 |
| TOTAL Capital Calls | 110,141,116 | 516,943 | 4,937,312 | - | 115,595,371 | 321,432,866 | 192,667,451 |
| NET INCREASE (DECREASE) | \$ (234,130,148) | \$ (3,714,307) | \$ (9,842,653) | \$ (3,645,629) | \$ (251,332,738) | \$ (605,967,215) | \$ (462,265,567) |

OUTSTANDING ASRS APPEALS

| Date Received | Appeals | Issues/Questions Regarding | Status/Comments |
|---------------|--|---|--|
| 04/16/2012 | Arizona State University | Appellant is disputing an ASRS employer termination incentive program invoice in the amount of \$1,149,000. | ASU appealed to the Court of Appeals 02/12/2014. Court of Appeals case number is CA-CV 14-0083. Briefing completed 09/03/2014. Oral Argument held on 04/08/2015. Final Opinion issued on 05/05/2015 reversing the Superior Court's decision affirming the ruling of the ASRS Board. ASRS Motion for Reconsideration filed in Court of Appeals on 05/19/2015. ASRS Motion for Reconsideration Denied 05/21/2015. ASRS Petition for Review filed 6/29/2015. ASU Application for Attorneys' Fees in the amount of \$114,493.00 denied on 7/24/2015. ASU Response to Petition for Review filed 8/28/2015. |
| 07/14/2014 | Richard K. Hillis & Sharon Di Giacinto | Disputing the ASRS determination that a DRO term is unacceptable. | Board upheld Administrative Law Judge Decision on 01/30/2015. Appellant filed Notice of Appeal on 02/02/2015 with the AZ Superior Court, Case No. LC2015-000048. Oral Argument held 07/29/2015. Awaiting Superior Court decision. |
| 12/17/2014 | The Griffin Foundation | Appellant is appealing the ASRS determination that the Appellant owes contributions from October 2010 to present. | OAH hearing held on 05/14/2015 and 07/09/2015. Written Closing Arguments by parties due in September 2015. |
| 02/06/2015 | David Lara | Appealing ASRS method of payment of Maria Cardenas' refund benefit. | OAH hearing held on 03/31/2015. Board affirmed Decision with modifications on 8/28/2015. Appellant filed an Application for Attorneys' Fees with OAH. ASRS Response to Application filed 9/8/2015. |
| 03/16/2015 | Mehrzad Khorsandi | Disputing ASRS decision not to accept application for Contributions Not Withheld for Service 1998-1999. | OAH hearing held on 05/11/2015. Board affirmed Decision with modifications on 8/28/2015. |
| 05/11/2015 | Robert Merritt | Disputing ASRS calculation method of service transfer credit. | OAH hearing held on 07/08/2015. Recommended Decision on 9/25/2015 Board Agenda. |
| 08/24/2015 | Amy Smith | Disputing an overpayment in the amount of \$2,136.56. | OAH hearing scheduled for 10/16/2015. |

- Please note any updates have been bolded.

OUTSTANDING ASRS APPEALS

09/02/2015

Donald Smith

Disputing ASRS calculation method of
his Domestic Relations Order.

Requesting an OAH hearing date.

- Please note any updates have been bolded.



ARIZONA STATE RETIREMENT SYSTEM

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*Paul Matson
Director*

MEMORANDUM

TO: Mr. Kevin McCarthy, Chair, Arizona State Retirement System (ASRS) Board
FROM: Mr. Paul Matson, Director
DATE: September 10, 2015
RE: Delinquent Employers

As of September 10, 2015, the following employers have failed to remit contributions by a date certain. These employers have received a letter advising them that the ASRS will initiate collection procedures unless they contact us within five days:

| | |
|--|----------------------|
| Starshine Academy | \$26,000.00* |
| No Az Academy For Career Develop | \$15,000.00* |
| Masada Charter School, Inc | \$50,000.00* |
| Chevelon Butte | \$1,000.00* |
| Destiny School (Charter) | \$12,000.00* |
| Wilson Elementary | \$20,000.00* |
| Miami Town Of | \$15,000.00* |
| Ajo Unif Sd | \$6,500.00* |
| Sequoia Pathway Academy | \$12,500.00* |
| American Heritage Acad (Chart Sch) | \$6,000.00* |
| Park View Middle School | \$2,000.00* |
| Sequoia Choice School, LLLP | \$22,000.00* |
| Sequoia Village School | \$7,000.00* |
| Sequoia Charter School | \$42,000.00* |
| Charter Foundation (Amerischools) | \$3,700.00* |
| Pathfinder Academy | \$16,000.00* |
| Sequoia Ranch School | \$16,000.00* |
| Sequoia Sch For Deaf And Hard Of Hearing | \$3,000.00* |
| Redwood Elem Academy | \$3,000.00* |
| Az Conservatory For Arts & Academics | \$8,000.00* |
| Peach Springs Usd #8 | \$11,000.00* |
| TOTAL | \$297,700.00* |

*Estimated amount

Additionally, the following employer has filed for Chapter 11 Bankruptcy Protection and are delinquent in their ASRS contributions:

| | |
|-----------------------|--------------|
| Luz Academy Of Tucson | \$ 18,600.00 |
|-----------------------|--------------|

| | |
|--------------|-----------------------|
| Total | \$ 316,300.00* |
|--------------|-----------------------|