







2012 Comprehensive Annual Financial Report For Fiscal Year Ended June 30, 2012



A Component Unit of the State of Arizona • Delivering Service With Pride

# Arizona State Retirement System

# DELIVERING SERVICE WITH...

# PRIDE

# **OUR VISION**

For the benefit of our members...
the Arizona State Retirement System
will be a leading state benefit plan
administrator in the areas of:

- Core Member Services
- Investment Performance
- Funded Status
- Operational Effectiveness

This will be accomplished while keeping program benefits and associated costs relatively aligned and maintaining actuarial and fiscal integrity.

# **OUR VALUES**

#### Professionalism.

A highly capable workforce will promote a professional and respectful environment and *lead* the organization.

#### Results.

A results-oriented approach to operations will *energize* the organization.

#### Improvement.

A climate of continuous quality improvement and enhanced efficiencies will *drive* the organization.

#### Diversity.

Engagement of diversity by the appreciation, recognition and support for all people will *propel* the organization to ever greater achievement.

#### Excellence.

A commitment to service excellence will **permeate** the organization.



# **Arizona State**Retirement System

A COMPONENT UNIT OF THE STATE OF ARIZONA



Mr. David Byers, Chair Mr. Thomas Connelly, Vice Chair

Report Prepared by the Staff of the Arizona State Retirement System

Paul Matson, Director

Comprehensive Annual Financial Report for Fiscal Year Ended June 30, 2012

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#### V. Statistical Section

This part of the Arizona State Retirement System's Comprehensive Annual Financial Report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required summary information says about the ASRS's overall financial health.

#### Financial Trends

These schedules contain trend information to help the reader understand how the ASRS's Financial Performance has changed over the past 10 years.

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#### Revenues

These schedules contain information to help the reader understand the ASRS's funding over the last 10 years.

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#### **Operations**

These schedules contain information about the ASRS's Operations.

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# CERTIFICATE OF ACHIEVEMENT FOR EXCELLENCE IN FINANCIAL REPORTING

Certificate of Achievement for Excellence in Financial Reporting

Presented to

# The Arizona State Retirement System

For its Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2011

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Arizona State Retirement System for its comprehensive annual financial report for the fiscal year ended June 30, 2011. This was the 23<sup>rd</sup> consecutive year that the Arizona State Retirement System has achieved this prestigious award.

#### PUBLIC PENSION STANDARDS AWARD FOR PLAN FUNDING AND ADMINISTRATION



**Public Pension Coordinating Council** 

**Public Pension Standards Award** For Funding and Administration 2012

Presented to

#### Arizona State Retirement System

In recognition of meeting professional standards for plan funding and administration as set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS) National Council on Teacher Retirement (NCTR)

Alan H. Winkle

The National Association of State Retirement Administrators (NASRA), National Conference on Public Employee Retirement Systems (NCPERS) and the National Council on Teacher Retirement (NCTR) awarded a Public Pension Standards Award to the Arizona State Retirement System for plan design and administration as set forth in the Public Pension Standards for 2012. The Public Pension Standards are intended to reflect minimum expectations for public retirement system management and administration, as well as serve as a benchmark by which all defined benefit public plans should be measured. This is the 8th consecutive year that the Arizona State Retirement System has received this prestigious award.

#### LETTER OF TRANSMITTAL FROM THE DIRECTOR



#### ARIZONA STATE RETIREMENT SYSTEM

3300 NORTH CENTRAL AVENUE • PO BOX 33910 • PHOENIX, AZ 85067-3910 • PHONE (602) 240-2000 7660 EAST BROADWAY BOULEVARD • SUITE 108 • TUCSON, AZ 85710-3776 • PHONE (520) 239-3100 TOLL FREE OUTSIDE METRO PHOENIX AND TUCSON 1 (800) 621-3778 EMAIL ADDRESS: ASKMAC@AZASRS.GOV • WEB ADDRESS: WWW, AZASRS.GOV

Paul Matson Director

October 30, 2012

To: The Arizona State Retirement System Board of Trustees

As we celebrate the 100<sup>th</sup> anniversary of the State of Arizona, I am pleased to present, on behalf of the ASRS staff, the fifty-ninth Comprehensive Annual Financial Report of the Arizona State Retirements System (ASRS), a component unit of the State of Arizona, for the fiscal year ended June 30, 2012.

Title 38 of the Arizona Revised Statutes requires the ASRS Board of Trustees (ASRS Board) to submit an annual report to the Governor and the Legislature within eight months of the close of each fiscal year. This report complies with the legal requirements governing the preparation and content of annual reports.

Responsibility for both the accuracy of the data, and the completeness and fairness of the presentation, rests with the ASRS management. Management relies on a comprehensive framework of internal controls to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

Heinfeld, Meech & Co., P.C. has issued an unqualified ("clean") opinion on the ASRS financial statements for the year ended June 30, 2012. The Independent Auditors' Report is located at the front of the financial section of this report.

Management's discussion and analysis (MD&A) immediately follows the Independent Auditors' Report and provides a narrative introduction, overview, and analysis of the basic financial statements. MD&A complements this letter of transmittal and should be read in conjunction with it.

#### **History and Overview**

The ASRS was created in 1953 to provide defined contribution retirement benefits to employees of the state of Arizona, Arizona universities, and political subdivisions. During calendar year 1954, Arizona teachers voted to join the ASRS effective January 1, 1955. In 1970, the state legislature authorized the creation of a defined benefit plan, contingent upon the election to transfer a minimum 70 percent of the ASRS membership. More than 80 percent voted to transfer to the defined benefit plan, which became effective July 1, 1971.

At June 30, 2012, total ASRS membership, including active, inactive, disabled and retired members is 535,501. There are 707 employer units participating in the ASRS, including school districts, charter schools, state colleges and universities, and local, county and state government.

Active non-state employees are also eligible to participate in an ASRS sponsored Supplemental Salary Deferral Plan (SSDP) and/or Supplemental Retirement Savings Plan (SRSP). The SSDP is a supplemental defined contribution plan qualified under 403 (b) and 457 (b) of the Internal Revenue Code. The SRSP is a supplemental defined contribution plan qualified under 401 (a) of the Internal Revenue Code.

In addition to pension benefits, the ASRS provides a health insurance premium benefit and sponsors medical and dental coverage for retired and disabled members and their eligible dependents and children. Active members also receive long-term disability insurance coverage equal to two-thirds of pay at the time of disablement.

During FY 2011-12, more than 112,306 retired annuitants, their survivors, and disabled members received in excess of \$2.45 billion in benefits. As of June 30, 2012, there were 45,766 retired members and their families enrolled in the ASRS-sponsored medical program and 40,899 retired members and their families enrolled in dental plans through the ASRS.

ASRS Board Trustees are appointed to three-year terms by the governor and confirmed by the Arizona State Senate. Four trustees of the ASRS Board must have a minimum of 10 years investment experience and each trustee who represents an ASRS member group shall have no less than five years of administrative management experience. There is no limit on the number of terms an ASRS Board Trustee may serve.

#### Major Initiatives for Fiscal Year 2011-12

#### **Investments**

- Strategic Asset Allocation study: Approved new Strategic Asset Allocation Policy (SAAP) which increases diversification, provides for increased returns in a low return environment, maintains liquidity and cost consciousness, and increases allocations to passive strategies.
- Modernization of Investment Statutes: Successfully sought to have statutes modified to more accurately reflect current prudent management and oversight of ASRS investments.
- Modification of Committee Governance Structure: Changed asset class committee structure from four to two committees to improve decision making efficiency and oversight functions.
- Implementation of Trade Order Management System: Transitioned to an electronic trade order management system for improved internal portfolio execution and management.

#### **Benefits Processing**

**Implemented an online employer data system**: Employers can now submit employee data electronically. This new system eliminates ASRS staff time devoted to verifying employer data and reduces processing time for refunds, pension, and survivor benefits.

#### **LETTER OF TRANSMITTAL FROM THE DIRECTOR (CONTINUED)**

- Early Retiree Reinsurance Program: Applied for and received Early Retiree Reinsurance Program (ERRP) funds from the U.S. Department of Health and Human Services. The money received may be used to:
  - Reduce contribution levels (premiums) for plan participants, to the extent possible, to 2009 levels.
  - Mitigate ASRS health benefit cost increases while keeping minimum funding to at least 2009 levels.
  - Hold in escrow to maintain member contributions and mitigate health benefit cost increases in future years.

#### **Services**

This past year the ASRS worked very hard to shift the service paradigm for members to more self-service online in order to lower the costs of doing business at higher demand levels:

- **Remote online counseling:** Introduced remote online one-on-one counseling sessions via the internet for our members who live outside Maricopa and Pima counties. Members can participate in a personalized counseling session with a benefit advisor from the comfort of their home or office.
- **Appointment Scheduler:** Introduced "Appointment Scheduler" for walk-in visits. This change allows the ASRS to anticipate demand, decrease wait times, and prepare in advance for individual counseling sessions of up to 30 minutes. It also saves up to 10,000 calls per year into the Call Center.
- Online Scheduler: Implemented an online scheduler so members can enroll in all outreach meetings when it is convenient for them.
- **Webinars:** Implemented a new webinar, "Planning for Retirement", which is a web-based version of the on-site group meeting.
- Webcast Tutorials: Implemented a series of webcast tutorials on how to fill out the retirement application.
- **E-newsletter:** The ASRS implemented an electronic newsletter in FY12 that will allow the agency to communicate with members more frequently and more cost effectively. The first e-newsletter was sent to almost half of the ASRS' total membership.

#### Administration

- Service Objectives: The ASRS continued to meet or exceed most of its established service objectives, with 85 percent of its measured operational and administrative objectives marked as achieved in FY12. Members continue to express high levels of overall satisfaction with the service provided by ASRS staff.
- **Employee Survey:** The ASRS conducted an employee survey in 2012, with employees indicating high levels of satisfaction in various aspects of the ASRS work environment.

#### **Investment Policies**

An integral part of the overall investment policy is the Strategic Asset Allocation Policy, which is designed to optimize returns while minimizing risk. The ASRS maintains its investment assets in accordance with Board approved SAAP. Investment assets are managed in 144 externally managed and 6 internally managed portfolios, which are diversified in U.S. equities, U.S. fixed income, international equities, real estate, private equity, opportunistic and commodity investments.

After deducting investment expenses, the ASRS obtained the following one, three, five, ten year and inception net rates of return for periods ended June 30, 2012:

#### **Annualized Rates of Return** (Net of Fees)

(Retirement & Health Benefit Supplement)

	1 Year	3 Year	5 Year	10 Year	Inception
					(June 30, 1975)
ASRS Total Fund	1.3%	13.2%	1.8%	6.3%	9.8%

The ASRS has investment guidelines for its internal and external investment managers and a complete set of policies, procedures, compliance requirements, and oversight of internal investment management to ensure that investment assets are prudently managed. Both internal and external compliance procedures are in place. Details of investments are contained in the Investment Section of this report.

#### **Funding**

Any excess of additions, which include contributions and investment earnings, over deductions, which include benefits and administrative expenses, is accumulated by the ASRS in order to meet future benefit obligations due to retirees and beneficiaries. State statutes require the ASRS to conduct an annual actuarial valuation of its plan assets and liabilities.

The funding objective of the ASRS is to maintain reasonably stable contribution rates and to achieve an ultimate funded status of 100 percent. According to the ASRS' most recently available actuarial valuation, dated June 30, 2011, the actuarial value of total plan assets (pension and health benefit supplement) was \$29.2<sup>1</sup> billion and the actuarial accrued liability was \$38.6<sup>1</sup> billion. The unfunded actuarial accrued liability of \$9.3 billion results in an actuarial funding ratio of 75.8 percent for the total plan. The decrease in actuarial funding percentage from last year's 76.7 percent is primarily due to recognition of investment losses in fiscal years 2002 and 2003 and the investment loss of fiscal years 2008 and 2009.

<sup>&</sup>lt;sup>1</sup>2011 results include System liabilities and assets for members who retired or will retire on or after July 1, 1981.

#### **LETTER OF TRANSMITTAL FROM THE DIRECTOR (CONTINUED)**

The June 30, 2011 market value of total plan assets (pension and health benefit supplement) was \$28.0<sup>1</sup> billion and the market value accrued liability was \$38.6<sup>1</sup> billion. The unfunded market value of assets accrued liability of \$10.6 billion results in a market value of assets funding ratio of 72.7<sup>1</sup> percent for the total plan. The increase in market value of assets funding percentage from last year's 61.6<sup>1</sup> percent is primarily due to the rate of return on market assets of 24.8% during fiscal year 2011 versus expected earnings of 8%.

A detailed discussion of funding is provided in the Actuarial Section of this report. Funding status and progress for the ASRS based on the most currently available valuation is presented in the Notes to the Financial Statements.

#### **Funded Status and Contribution Rate Projections**

Although the ASRS funds are a well-diversified and professionally managed portfolio of investments, they incurred significant losses in the years ended June 30, 2008 and June 30, 2009. These losses have the effect of reducing the actuarial value and market value of assets funded status of the funds. As a result, the combined pension and health benefit supplement contribution rate is expected to increase for approximately the next seven years.

#### **ASRS Cost Saving Initiatives**

In order to increase the funded status of the plans, mitigate future increases in contribution rates, and ensure plan sustainability, the ASRS, over the last 9 years, has been engaged in significant program and policy review. While this is an on-going process, the program policy and legislative initiatives that have been implemented are estimated to reduce total contributions to the ASRS (including non-ASRS initiated legislation) by approximately \$305 million per year, which is equivalent to \$3.6 to \$5.4 billion in liability savings for the group of all current employees, or approximately \$8.5 to \$8.6 billion in liability savings for the group of all current and future employees. Over the long term, these very significant savings will reduce future increases in contribution rates to both employee and employers by an average of approximately 3.23 percent in total each year.

Please see chart on next page.

<sup>1</sup>2011 results include System liabilities and assets for members who retired or will retire on or after July 1, 1981.

#### **Estimated Impact of ASRS Cost Reduction Initiatives**

As of June 30, 2011 Valuation Date (Amount in Millions of Dollars)

Action	Reduction in Total Contribution Rate	Red	Total	of	esent Value Savings on osed Group Basis	Sav	esent Value of vings on Open Group (No rowth) Basis
COST SAVINGS INITIATIVES CONTAINED IN CURRENT VALUATION	ON & REFLECTE	DINL	OWER CUR	REN	T CONTRIBUTIO	N RA	ATE
Change basis for service purchases from normal cost to actuarial present value (APV)	0.60%	\$	54.36	\$	971.89	\$	1,748.55
Correction of Permanent Benefit Increase (PBI) reserve	0.04%		3.63		64.63		64.63
Decrease interest credited on withdrawn contributions from 8% to 4%	0.27%		24.46		437.42		786.86
Sub-Total, Savings in Current Valuation	0.91%	\$	82.45	\$	1,473.94	\$	2,600.04
COST SAVINGS INITIATIVES CONTAINED IN FUTURE EXPERIENCE	Œ						
Long Term Disability (LTD) program design changes	0.02%	\$	1.81	\$	32.89	\$	58.72
Reimbursements for early retirement incentives	0.18%		16.31		291.48		524.53
Increase interest rate on payroll deduction agreements (PDAs) from 0% to 8%	0.16%		14.50		259.42		466.50
Pop-up restrictions	0.41%		38.83		574.49		1,129.22
Rescinding modified Deferred Retirement Option Plan (mDROP)	0.50%		45.26		682.66		1,329.33
LTD changes to offsets and pre-existing condition period	0.15%		13.59		186.11		380.28
Recapture of unclaimed monies	0.01%		0.58		8.03		16.28
Eliminate 80% cap on retirement benefits	0.04%		3.63		35.91		87.71
Require 20/20 Rule for dual employment situations	0.04%		3.36		33.23		81.19
Eliminate enhanced refunds	0.16%		14.57		0-316.74 <sup>1</sup>		316.74
Replace Rule of 80 with Rule of 85	0.30%		27.31		0-593.70 <sup>1</sup>		593.70
Replace 36-month average salary with 60-month average	0.25%		22.76		0-494.78 <sup>1</sup>		494.78
Apply Alternative Contribution Rate (ACR) to return-to-work	0.25%		22.76		0-454.36 <sup>1</sup>		454.36
Sub-Total, Savings Emerging in Experience	2.47%	\$	225.27		\$2,104.22 - 1 \$3,963.80	\$	5,933.34
NON-ASRS INITIATIVES							
Replace Rule of 85 with 55 & 30 or 60 & 25	0.00%	\$	-	\$	0-13.04 <sup>1</sup>	\$	13.04
Change contribution split (member/employer) to 53/47 <sup>2</sup>	-0.06%		(5.44)		(40.54)	(4	0.54) - (118.26) <sup>1</sup>
Change pre-retirement death benefit to sum of employee and employer balances (ASRS Initiative)	0.04%		3.33		24.82		72.39
Adopt 6-month delay in contributions from state members	-0.13%		-		-		-
Prospective cost-shift of 6-month delay (not included in totals)	N/A		(11.78)		0 - (87.79) <sup>1</sup>		(87.79)
Sub-Total, Saving Emerging in Experience from Non- ASRS Initiatives	-0.15%	\$	(2.11)		\$(15.72) - <sub>1</sub> \$(2.68)		\$44.89 - <sub>1</sub> \$(32.83)
GRAND TOTAL	3.23%	\$	305.61		\$3,562.44 - 1 \$5,435.06		\$8,500.55 - <u>1</u> \$8,578.27

<sup>&</sup>lt;sup>1</sup> The ranges indicate that the change is one that applies to only members hired after a certain date. Thus on a closed group basis, there is no initial effect on cost, and no present value of future savings, because there are no members in the valuation (hired before 7/1/2011) to whom the change applies. As time goes by, however, there will be savings on a closed group basis, as each new cohort of members moves into the active member group. Eventually the savings on a closed group basis will equal the savings on the open group basis since the open group numbers include future members.

<sup>&</sup>lt;sup>2</sup> Subsequent to the completion of the 2011 Actuarial Valuation, the 50<sup>th</sup> Arizona State Legislature enacted legislation which retroactively reverted the contribution rate back to 50% for employees and 50% for employers as of July 1, 2011.

#### **LETTER OF TRANSMITTAL FROM THE DIRECTOR (CONTINUED)**

#### **Budget Savings**

The ASRS planned and implemented strategies to reduce our agency expenditures. As a result, the ASRS realized reductions to the operating budget totaling \$500,000 for FY 2012 and \$3.7 million over the past five years.

#### **Awards**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the ASRS for its CAFR for the fiscal year ended June 30, 2011. The ASRS has received this prestigious award in each of the last 23 years.

To be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized CAFR that satisfies both accounting principles generally accepted in the United States of America and applicable legal requirements. A Certificate of Achievement is valid only for one year. We believe this report continues to conform to the Certificate of Achievement Program requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

The GFOA also awarded the ASRS the Award for Outstanding Achievement for its June 30, 2011 Popular Annual Financial Report (PAFR). PAFR's must be readily accessible and easily understandable to the general public and other interested parties without a background in public finance. This was the first time the ASRS published a PAFR. To be awarded the Award for Outstanding Achievement, a government must have received the Certificate of Achievement for Excellence for its CAFR for the previous year or for the current year.

In addition, the Public Pension Coordinating Council awarded a Pension Standards Award for 2012 to the ASRS for meeting professional standards and plan design and administration. To be awarded the Pension Standards Award, a public employee retirement system must certify that it meets requirements in six areas of assessment. Those areas are comprehensive benefits program, funding adequacy, actuarial, audit, investments and communications. The Pension Standards Award is valid for one year. This is the eigth year the ASRS has received this award.

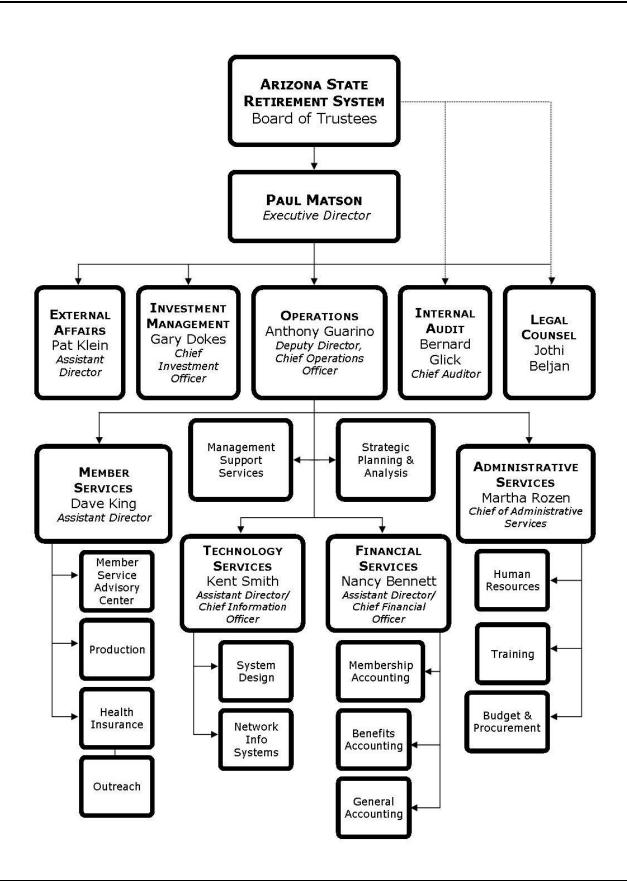
#### **Acknowledgements**

This report represents the culmination of hours of hard work by the ASRS General Accounting and Investment Management Division staff. It is intended to provide complete and reliable information for decision making, to ensure compliance with legal requirements, and is a means of measuring the responsible stewardship of the assets of the ASRS.

I would like to express my gratitude to the ASRS Board for its support for and leadership in planning and conducting the financial affairs of the ASRS in a responsible and progressive manner. The ASRS Board, along with the ASRS Executive and Senior Management and the entire staff of the ASRS has been instrumental in maintaining the high quality of service and performance, which has become the standard for the ASRS.

Respectfully submitted,

Paul Matson, Executive Director





Fiscal Year 2011-2012 Board



#### CHIEF OUTSIDE PROFESSIONAL SERVICES

#### **ACTUARY**

Buck Consultants, LLC Phoenix, AZ

#### LONG TERM DISABILITY BENEFITS

Sedgwick CMS Company Calabasas, CA

#### **CUSTODIAL BANK**

State Street Bank and Trust Co. Boston, MA

#### PENSION DISBURSEMENT SERVICES

State Street Retiree Services Boston, MA

#### **INDEPENDENT AUDITORS**

Heinfeld, Meech & Co., P.C. Tucson, AZ

#### **GENERAL INVESTMENT CONSULTANT**

NEPC, LLC Cambridge, MA

#### PRIVATE REAL ESTATE CONSULTANT

Robert Charles Lessor and Co., LLC Bethesda, MD The Townsend Group Cleveland, OH

#### PRIVATE EQUITY CONSULTANT

Meketa Investment Group Boston, MA

#### **INVESTMENT MANAGERS**

Investment Managers are listed in the Schedule of Investment Fees See Page 87-91

#### **SUMMARY OF 2012 RETIREMENT LEGISLATION**

The 51st Legislature, Second Regular Session adjourned May 3, 2012. Below is a brief summary of bills that have been passed into law that affect ASRS members and employers. To view legislation in its entirety, visit the Arizona Legislature's website at www.azleg.gov. All bills listed below are effective on the general effective date (August 2, 2012) unless otherwise noted.

#### HB 2283 — state employee benefits; definition

(Laws 2012, Chapter 40)

• Clarifies, for the purposes of the six-month benefit eligibility waiting period for new employees, the definition of "state employee" for judicial employees as an employee whose salary is paid through ADOA.

#### SB 1194 — ASRS; nonparticipatory employer; liabilities

(Laws 2012, Chapter 79)

- Requires ASRS to allocate a liability to an employer that is no longer participating in ASRS if that non-participation is based on:
  - The character of the employer changing from a public entity to a private entity.
  - o For the State, the character of a State Agency, Board or Commission changing from public to private.
  - o An employer, other than the State or a Charter School, filing for bankruptcy or otherwise dissolving.
  - An employer no longer participating.
- Establishes the total liability as the sum of the following:
  - o The Plan Employer Actuarial Accrued Liability (AAL) multiplied by the Plan Total Deficit Percentage.
  - o The LTD Program Employer AAL multiplied by the LTD Program Total Deficit Percentage.
- States that the law does not permit an employer to alter the irrevocable adoption agreement approved by the ASRS board.
- Permits ASRS to determine the schedule and method of payment.

#### SB 1117 — ASRS; administration

(Laws 2012, Chapter 87)

#### Administration

- Permits the ASRS Director to determine the method of making disbursements and collecting receipts.
- Clarifies that ASRS shall provide an account to each member (instead of an annual account statement), which
  may be furnished electronically.

#### **Accounts Receivables**

- States that a debtor who fails to pay monies owed to ASRS is liable for the costs and expenses of collecting the
  debt
- Permits ASRS, after two attempts to collect and at least 30 days from the date the debt was determined, to levy
  cash and cash equivalent property at financial institutions or salary or wages of the debtor, and requires the financial institution or employer to notify the debtor of the levy within 5 business days.
- Permits ASRS to seize cash property and seize and convert cash equivalent property to cash.
- Permits ASRS to enter into agreements with financial institutions to develop a data match system to assist with debt collection.

#### SB 1119 — ASRS; spousal consent

(Laws 2012, Chapter 88)

- Requires a member who is married to:
  - o Name and maintain the member's current spouse as a beneficiary to receive at least 50% of the member's account.
  - At the time of retirement, elect a monthly benefit in the form of a joint and survivor annuity, and requires the member's current spouse to be the contingent annuitant (CA).
  - Before naming a new CA or rescinding an election of a CA, to obtain the consent of the current CA if that person is a current spouse.
- Allows a member's current spouse, by submitting an acknowledgement to ASRS, to consent to any of the following:
  - A change of beneficiary that provides the member's current spouse with less than 50% of the member's account balance.
  - o A member's retirement application that does not name the member's current spouse as a CA of a joint and survivor annuity.
  - A change or rescission of the member's current spouse's CA status.
- Applies the new spousal consent statutes to ASRS members who retire or name or change their beneficiary or CA on or after July 1, 2013.

#### HB 2662 — ASRS; employees; election; enrollment

(Laws 2012, Chapter 273)

- Permits an employee to, until July 1, 2015, elect not to participate in ASRS if:
  - The person becomes employed after the person has reached age 65.
  - The person is not an active, inactive, retired or disabled member.
  - The person does not have any credited or prior service in ASRS.
- Requires the election to be:
  - o In writing and filed with ASRS within 30 days of employment.
  - o Irrevocable for the remainder of the employee's employment with that employer, and the time cannot later be purchased in ASRS.
- Requires ASRS to, by December 31, 2014, provide a report to the Legislature that includes:
  - o Number of employees who have elected not to participate.
  - Actuarial impact to ASRS.
  - o Administrative impact to ASRS.
  - Recommendations from ASRS and employers about the feasibility of continuing the opt-out beyond July 1, 2015.

#### SB 1523 — general appropriations; 2012-2013

(Laws 2012, Chapter 294)

States that employees, employers and retirees enrolled in ADOA's Health Insurance Program will not make health insurance premium payments for a short time during FY2013. ADOA will determine when the premium "holiday" will occur, but retirees will generally not be eligible for a HBS when not making premium payments.

#### HB 2264 — ASRS; employer; employer contributions; rate

(Laws 2012, Chapter 304)

- Reverts the ASRS employee and employer contribution rates for the Defined Benefit (DB) plan and Long-Term Disability (LTD) program from 53%/47% to 50%/50%, retroactive to July 1, 2011.
- Requires employers to return excess employee contributions by September 30, 2012, except that a return is not required to an employee who has forfeited their right to ASRS benefits or otherwise received the value of the excess contributions as a distribution from ASRS.
- Requires employers to adjust the contribution transactions reported to ASRS in a manner instructed by ASRS by June 30, 2012.
- States that the return of excess employee contributions:
  - o For the DB plan shall be treated as taxable wages in calendar year 2012.
  - o For the LTD program shall be treated as a payment by the employer of previously taxed wages.
  - o Shall not be treated as salary, wages or compensation for purposes of determining ASRS benefits.
- States that ASRS is not under any duty to monitor, arbitrate, manage or otherwise control the return of any excess employee contributions.
- Allows ASRS to adjust a member's account due to the retroactive change to the contribution rate.
- Makes appropriations to State Agencies and the Dept. of Education (for school districts and charter schools) to cover the cost of the refunds.

#### **HB 2745 — NOW: PSPRS; employer contributions**

(Laws 2012, Chapter 362)

#### **Distributions**

- Eliminates the Level Income Alternative retirement option for new retirements after July 1, 2013.
- Requires the Partial Lump Sum retirement distribution to be based upon the straight life annuity calculation, rather than the actual annuity option selected by the member.
- Prohibits ASRS from paying the employer portion of a Contributions Not Withheld (CNW) payment as a refund or non-retired survivor benefit if the employee has not paid their portion of the CNW.

#### **Service Purchase**

- Reduces the credited service requirement for service purchases from 10 to 5 years for Other Public Service, Leave of Absence (LOA), and Military Service.
- Requires a member to be an active member, inactive member who was unable to resume employment, or disabled member at the time the member requests LOA service purchase.
- Conforms Military Service purchase statute to Federal law for reserve service time.

#### **Investments**

- Repeals existing investment statutes and replaces with a single statute containing the following provisions:
  - A financial institution serving as an investment manager does not have a conflict of interest because it is also a depository in which ASRS monies are deposited.
  - o The board shall appoint and may remove multiple investment managers.
  - The board may authorize the director to retain and manage staff to make investments as an investment manager.
  - o Investment managers shall be qualified to make the investments for which they are appointed.

- The board shall prescribe investment goals and policies, allocate assets and utilize investment strategies, adopt directives for the guidance of investment managers, review the performance of investment managers at least annually, and prescribe investment diversification programs and assign investment manager responsibilities as appropriate.
- o Investment managers shall be held to the "prudent expert" standard.
- o Investment managers may hold, purchase, sell, assign, loan, borrow, transfer and dispose of any of the securities and investments it is charged with managing.
- o The director may engage in securities lending.
- No more than 80% of ASRS assets may be invested at any given time in equities, measured at market value.
- No more than 40% of ASRS assets may be invested in non-United States public investments, measured at market value.
- o No more than 60% of ASRS assets may be invested internally, measured at market value.
- No more than 5% of ASRS assets may be invested in securities issued by one institution, agency, or corporation, except for investments guaranteed by the U.S. or federal agencies, measured at market value.
- No more than 10% of ASRS assets may be invested in bonds or other debt of multinational development banks, measured at market value.
- o If a limit is reached an investment manager is not required to sell assets, but shall not make any further investments of that type until the limit is no longer exceeded.
- An investment manager is not required to invest in economic development projects, public works or social programs, but may consider such economically targeted investments pursuant to its fiduciary responsibility.
- The board may enter into contracts to receive market data and other market information from securities, commodities, options and monetary exchanges that may be interpreted and enforced under the laws of a jurisdiction other than this state and are not subject to section 35-214 [inspection and audit of contract provisions] or 38-511 [cancellation of political subdivision and state contracts; definition] or title 41, chapter 23 [Arizona procurement code], but are subject to Title 35, Chapter 2, Articles 7,8, and 9 [divestment].
- Proprietary commercial information received by ASRS that relates to investment is confidential and not
  a public record if the information is information that customarily would not be released to the public by
  the person or entity from whom the information was obtained.

#### **Health Benefit Supplement**

- Ceases, for new retirees on or after August 2, 2012, payment of the Health Benefit Supplement (HBS) to retirees
  and disabled members who are covered under an ASRS employer's "active employee" insurance plan, either as
  the insured or as a dependent, if the premium paid by the retiree or disabled member is subsidized by the ASRS
  employer.
- Defines "subsidized" as a situation in which a portion of the total premium is paid by the employer, but does not necessarily mean a plan in which the employer uses blended rates to determine the total premium.

#### **SUMMARY OF 2012 RETIREMENT LEGISLATION (CONTINUED)**

#### **Long-Term Disability Program**

- Caps disability earnings from the LTD program benefit and other statutory sources at 100% of the member's pre-disability salary (the salary ASRS used in determining benefits) for new disabilities on or after August 2, 2012. ASRS offsets the member's LTD benefit if the cap is exceeded.
- Requires claims to be supported by "Objective Medical Evidence," and defines "Objective Medical Evidence" as evidence that establishes facts and conditions, as perceived without distortion by personal feelings, prejudices or interpretations, and shall include x-rays, quantitative tests, laboratory findings, data, records, reports from the attending physician, and reports from a consulting physician, when appropriate.

#### Miscellaneous

- Waives the payment of the Alternate Contribution Rate for a PSPRS employer if the retired member is required to participate in another state retirement system and the retired member returned to work before July 20, 2011.
- Repeals existing investment statutes and replaces with modernized language.

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#### **INDEPENDENT AUDITORS' REPORT**



The Honorable Janice K. Brewer, Governor State of Arizona

Board of Trustees Arizona State Retirement System

We have audited the accompanying Statement of Plan Net Assets of the funds of the Arizona State Retirement System (ASRS), a component unit of the State of Arizona, as of and for the year ended — June 30, 2012, and the related Statement of Changes in Plan Net Assets of the funds for the year then ended. These basic financial statements are the responsibility of ASRS's management. Our responsibility is to express an opinion on these financial statements based on our audit. The comparative totals as of and for the year ended June 30, 2011, presented in the basic financial statements are included for additional analysis only. Our audit report dated October 24, 2011, expressed an unqualified opinion on these statements; however, we have not performed any auditing procedures on this information since the date of our report.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets of the funds of the Arizona State Retirement System, a component unit of the State of Arizona, as of June 30, 2012, and the changes in net assets of the funds for the year then ended in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, we have also issued our report dated October 30, 2012, on our consideration of the Arizona State Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be considered in assessing the results of our audit.

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 24 through 29 and the Schedule of Funding Progress and Schedule of Employer Contributions on pages 52 through 60 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the ASRS's financial statements as a whole. The accompanying supplementary information such as the Introductory Section, Additional Supplementary Information, Investment Section, Actuarial Section, and Statistical Section are presented for purposes of additional analysis and are not a required part of the financial statements. The Additional Supplementary Information, as listed in the table of contents under the Financial Section, is the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. The Additional Supplementary Information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Additional Supplementary Information is fairly stated in all material respects in relation to the financial statements as a whole. The Introductory Section, Investment Section, Actuarial Section, and Statistical Section have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Heinfeld, Melch & Co., P.C.

HEINFELD, MEECH & CO., P.C. **CPAs and Business Consultants** 

October 30, 2012

#### MANAGEMENT'S DISCUSSION AND ANALYSIS

his section presents Management's Discussion and Analysis (MD&A) of the Arizona State Retirement System's (ASRS) plan net assets and changes in plan net assets for the fiscal year ended June 30, 2012. It is presented as a narrative overview and analysis. The discussion and analysis should be read in conjunction with the Letter of Transmittal included in the Introductory Section of the ASRS' Comprehensive Annual Financial Report (CAFR), and the basic financial statements and notes to the basic financial statements presented in the Financial Section of the CAFR.

#### **Financial Highlights**

During FY 2012, ASRS assets decreased primarily as the result of weak market conditions in the domestic and international equity markets combined with a net decrease in cash flow from operations. As a result, over this period the ASRS' investments under-performed the assumed 8 percent actuarial investment rate of return.

- The ASRS rate of return on investments for FY 2012 was 1.3 percent compared to 24.6 percent for FY 2011. The decrease in the rate of return reflects the weak conditions in the global securities markets during the fiscal year 2012.
- The ASRS combined total net assets held in trust for pension benefits decreased by 1.6 percent at FYE June 30, 2012 compared to FYE 2011. The decrease in the combined total net assets is primarily due to weak conditions in the global securities markets during the fiscal year, which yielded a 1.3 percent return, while net cash flows from operations decreased from FY 2011 to FY 2012.
- The ASRS paid \$2.49 billion in pension, disability, health insurance and survivor benefits during FY 2012 compared to \$2.35 billion in FY 2011. The 6 percent increase is due to a 4.5 percent increase in the total number of retirees and 14 percent increase in forfeitures.
- As of June 30, 2011, the most recent actuarial valuation, the Retirement and Health Benefit Supplement Funds combined were 75.8 percent funded.

This compares to a combined funding ratio of 76.7 percent as of June 30, 2010. The change in funding percentage is primarily due to continued recognition of investment losses for fiscal years 2002 and 2003, as well as to the investment losses in fiscal years 2008 and 2009.

#### Overview of the **Financial Statements**

The MD&A is intended to serve as an introduction and overview of the ASRS financial section of the CAFR which is comprised of the following components: 1) basic financial statements, 2) notes to the basic financial statements, 3) required supplementary information and 4) additional supplementary schedules. Collectively, this information presents the combined net assets held in trust for pension benefits which includes health benefit supplements and long term disability for each of the funds administered by the ASRS as of June 30, 2012. This financial information also summarizes the combined changes in net assets held in trust for pension benefits for the year then ended. The information available in each of these sections is briefly summarized as follows:

- 1) **Fund financial statements.** For the fiscal year ended June 30, 2012, financial statements are presented for the funds administered by the ASRS. These fiduciary funds are held for the benefit of the ASRS members.
- The Combined Statement of Plan Net Assets is presented as of June 30, 2012 with combined total comparative information as of June 30, 2011. This financial statement reflects the resources available to pay benefits to members, including retirees and beneficiaries, at the end of the fiscal year.
- The Combined Statement of Changes in Plan Net Assets is presented for the year ended June 30, 2012 with comparative information for the year ended June 30, 2011. This statement reflects the changes in resources available to pay benefits to retirees and other beneficiaries for the year.

- 2) Notes to the Basic Financial Statements. The notes to the Basic Financial Statements provide additional information that is essential to a full understanding of the data provided in the basic financial statements. The notes to the basic financial statements can be found on pages 32-51 of this report.
- 3) Required Supplementary Information. The required supplementary information consists of two schedules and related notes concerning actuarial information, funded progress and required contributions of the defined benefit pension systems administered by the ASRS.
- 4) Additional Supplementary Schedules. These schedules include a Combining Schedule of Net Assets and Changes in Net Assets for the ASRS Plan and System retirement programs, detailed information about additions and deductions, administrative expenses incurred by the ASRS administered funds and investment expenses by manager. The ASRS Plan, a defined benefit plan, and the System, a defined contribution plan with guaranteed benefits, are separate components administered within the same pension plan.

#### **Financial Analysis of** the ASRS Funds

The ASRS administers retirement, health and long term disability benefits for teachers, state, county and other public municipal employees. ASRS benefits are funded by member and employer contributions and by earnings on investments. The ASRS has three funds, Retirement, Health Benefit Supplement (HBS) and Long Term Disability (LTD), to which the contributions are distributed according to actuarially determined contribution rates.

Plan Net Assets. The total ASRS net assets held in trust for benefits at June 30, 2012 were \$27.9 billion, a 1.6 percent decrease from \$28.3 billion at June 30, 2011. The decrease in net assets is primarily due to a decrease in net cash flow from operations, while investment returns remained relatively flat at 1.3 percent. The retirement fund net assets were \$26.4 billion compared to \$26.8 billion last year, a 1.5 percent decrease. The HBS fund net assets were \$1.2 billion at year end compared to the same \$1.2 billion at FYE 2011. The LTD fund net assets were \$257 million at year end compared to \$281 million last year, an 8.5 percent decrease.

Cash, receivables and prepaids of \$1.10 billion in FY 2012 represents an insignificant change compared to 1.12 billion in FY 2011. Liabilities of \$907 million represents a decrease of 60 percent compared to \$2.2 billion last year. This is primarily due to a decrease in payable for securities lending collateral resulting from a reduction in lending activity due to concerns regarding the European banking sector.

Changes in Net Assets. For the 2012 fiscal year, contributions totaled \$1.9 billion, compared to the 2011 fiscal year contributions of \$1.7 billion. The increase is due to a 6 percent increase in contribution rates and receipt of funds from the Federal government for reimbursements related to the Early Retiree Reinsurance Program totaling \$20 million and a retrospective health insurance rate adjustment reimbursement totaling \$15 million.

For FY 2012, the ASRS recognized net investment income of \$339 million which compares to net investment income of \$5.7 billion in the previous year. This 94 percent decrease is due to weak conditions in the global equity markets and a reduction in securities lending income during the fiscal year.

Deductions from the ASRS net assets held in trust for benefits consist primarily of pension, disability, health insurance and survivor benefits, member refunds and administrative expenses. For the 2012 fiscal year, pension, disability, health insurance and survivor benefits totaled \$2.49 billion, an increase of 6 percent over the \$2.35 billion paid during FY 2011. The 6 percent increase is explained by an increase in total retirees. Refunds and transfers to other plans totaled \$212 million dollars in 2012, a 14 percent increase from the \$187 million paid out in 2011. The increase is due primarily to a 15 percent

#### MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED)

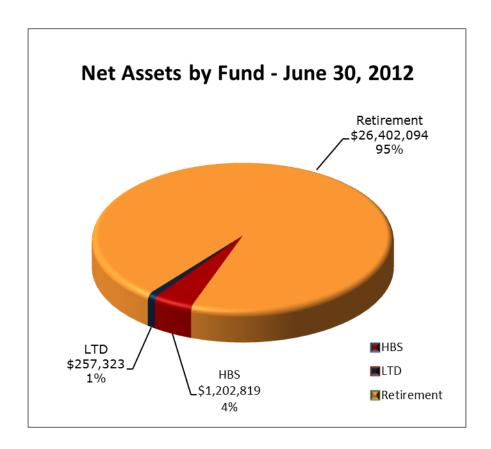
increase in refunds due to the current economic environment, offset by a 20 percent decrease in transfers to other plans. In FY 2012, the cost of administering the ASRS benefits totaled \$35 million, an increase of 13 percent from the \$31 million paid in FY 2011. This increase is primarily due to an increase in custodial banking fees related to the reduction of the securities lending program

and an increase in consultant payroll due to implementation of legislative changes.

The following tables show the principal ASRS net assets and changes in net assets for fiscal years 2012 and 2011, in thousands of dollars:

Net Assets	2012	2011	Change	% Change
ASSETS				
Cash, receivables and prepaids	\$ 1,092,738	\$ 1,114,771	\$ (22,033)	-2.0%
Investments at fair value	27,626,426	28,541,753	(915,327)	-3.2%
Securities lending	50,070	880,893	(830,823)	-94.3%
Total assets	28,769,234	30,537,417	(1,768,183)	-5.8%
LIABILITIES				
Payables and other liabilities	856,928	1,341,717	(484,789)	-36.1%
Securities lending	50,070	880,893	(830,823)	-94.3%
Total Liabilities	906,998	2,222,610	(1,315,612)	-59.2%
TOTAL NET ASSETS	\$27,862,236	\$28,314,807	\$ (452,571)	-1.6%

Change in Net Assets		2012	2011		Change		% Change
ADDITIONS							
Member contributions	\$	926,966	\$	854,976	\$	71,990	8.4%
Employer contributions		927,628		859,399		68,229	7.9%
Federal government reimbursement		19,978		-		19,978	100.0%
Retrospective rate adjustment reimbursement		15,495		-		15,495	100.0%
Service credit purchase and transfers in		53,659		70,812		(17,153)	-24.2%
Investment and security lending income		475,030		5,833,161		(5,358,131)	-91.9%
Investment and security lending expense		(136,302)		(128,709)		(7,593)	-5.9%
Total additions		2,282,454		7,489,639		(5,207,185)	-69.5%
DEDUCTIONS							
Retirement and disability benefits		2,457,052		2,324,602		132,450	5.7%
Survivor benefits		29,731		23,949		5,782	24.1%
Refunds and transfers		212,313		186,975		25,338	13.6%
Administration and other		35,929		32,240		3,689	11.4%
Total deductions		2,735,025		2,567,766		167,259	6.5%
NET CHANGE		(452,571)		4,921,873		(5,374,444)	-109.2%
Net assets beginning of year		28,314,807		23,392,934		4,921,873	21.0%
Net assets end of year	\$2	27,862,236	\$2	28,314,807	\$	(452,571)	-1.6%



Funded Status. Actuarial valuations of the ASRS assets and benefit obligations for the retirement and health benefit supplement funds combined are performed annually. The most recent actuarial valuation available is as of June 30, 2011.

At June 30, 2011 the total funded status of the ASRS retirement and health benefit supplement funds decreased to 75.8 percent from 76.7 percent at FYE 2010. At FYE 2011 ASRS actuarial liabilities exceeded actuarial assets for the retirement and health benefit supplement funds by \$9.3 billion. This compares to an excess of actuarial liabilities over actuarial assets of \$8.8 billion at FYE 2010. This decrease in funded status is due primarily to the recognition of investment losses in fiscal years 2002 and 2003 and the investment losses in fiscal years 2008 and 2009.

**Investments.** During the FY 2012, the ASRS investments were broadly diversified in domestic and international equities, domestic fixed income, real estate, private equity, opportunistic, commodities and cash equivalent instruments. According to statutory restrictions, no more than 80 percent of ASRS assets may be invested at any given time in corporate stocks or equity equivalents, and no more than 30 percent of ASRS assets may be invested in foreign securities. These investments remained within statutory guidelines.

The Retirement and HBS funds are combined in commingled investment pools. Investments for each fund are allocated daily via a fluctuating dollar unitization methodology. Realized and unrealized gains are allocated daily using the same methodology. The LTD investments are held and managed in a separate fund.

## MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED)

At June 30, 2012, the ASRS held net investments of \$27.8 billion, a decrease of \$452.6 million from FY 2011. The combined investment portfolio experienced a return of 1.3 percent compared to the Interim Total Fund Benchmark return of 1.4 percent. The decrease in net investments from FY11 to FY12 is primarily due to marginally positive U.S. equities, weak international equities and single-digit fixed income returns coupled with net cash outflows for benefit payments.

The ASRS held \$12.6 billion in domestic equities and \$4.7 billion in international equities on June 30, 2012, a decrease of 3 percent in domestic equities and a 4 percent decrease in international equities from FY 2011. Market performance and the reallocation of assets account for the change in value. The FY 2012 rate of return for ASRS domestic equities was 2.8 percent compared to 33.8 percent in FY 2011. By comparison, the ASRS domestic equities benchmark, comprised of a combination of S&P 400, S&P 500 and the S&P 600 indices, had a return of 3.7 percent for FY 2012. The FY 2012 rate of return for ASRS international equities was -13.1 percent compared to 29.8 percent in FY 2011. Comparatively, the ASRS international equities benchmark, comprised of the MSCI EAFE, MCSI EAFE Small Cap and the MSCI EM indices, had a rate of return of -13.9 percent for FY 2012. The underperformance of the Fund's international equities class was largely a result of the stock selections made by external portfolio managers, and growing risks throughout Europe and the European banking sector.

Domestic fixed income securities held by the Fund were \$5.4 billion at June 30, 2012, a decrease of \$579.7 million from FY 2011. The rate of return was 8.1 percent compared to 5.0 percent in the previous year, as the result of lower long-term interest rates and the narrowing of credit spreads during FY 2012. The ASRS domestic fixed income benchmark, the Barclay-Aggregate Index, returned 7.5 percent for FY 2012.

At June 30, 2012, the ASRS held \$317.8 million in commodities securities managed by two commodity managers. The managers experienced a return of 15.1 percent and 12.2 percent, respectively, compared to the DJUBS Com-

modity Index, which returned 14.3 percent a during FY 2012.

At June 30, 2012, the ASRS held \$1.4 billion in real estate assets, an increase of \$262.8 million from FY 2011. The one year and three year time weighted returns for the real estate program are 12.3 percent and 9.8 percent, respectively. This compares to the NFI-ODCE Index 14.7 percent and 4.1 percent for the one and three year periods. The NFI-ODCE Index is comprised of core institutional quality real estate with moderate leverage and reported net of fees. Approximately 70 percent of the real estate program assets are invested in opportunity fund style investments which can differ substantially from core style investments. The recent performance of the real estate investments reflects an improving economy and property markets. The difference in performance compared to the benchmark reflects primarily a divergence in the type of assets owned.

At June 30, 2012, the ASRS held \$1.3 billion in private equity investments, an increase of \$511.3 million from FY 2011. On a relative basis over the long-term (10 years or longer), the ASRS Strategic Investment Policy benchmarks the private equity program against and expects the program's performance to generate a minimum internal rate of return equal to the Russell 2000 Index, net of all investment management fees and expenses. For the year ending June 30, 2012, the one year and three year net-offees rate of return was 15.4 percent and 16.8 percent, respectively. For the same periods, the Russell 2000 Index returned -0.2 percent and 26.9 percent, respectively. Midteen returns for the private equity portfolio since 2009 reflect improvements in the economy since the low point of the recent recession and have been accretive to total fund returns. The comparison to the Russell 2000 reflects composition differences between the public market benchmark and the private market holdings, as well as volatility in the public market compared to private market appraisal valuations. The inception return of 0.2 percent of the private equity portfolio is a time weighted return, which needs to be interpreted considering the portfolio is in a build out phase where the scale of investments in recent periods is far greater than early periods, but every

time period is given an equal weight in the return calculation. By comparison, the IRR for the private equity program from inception is 10.2 percent, a full 10 percent higher than the time weighted return.

At June 30, 2012, the ASRS held \$653.5 million in opportunistic funds, an increase of \$273.9 million from FY 2011. The performance of ASRS opportunistic investments are evaluated primarily on a net-of-fees absolute rate of return basis; in aggregate, these investments, inception-to-date, have returned 8.1 percent primarily as the result continued tightening of Securitized Credit (Commercial Mortgage Backed Securities, non-agency RMBS, Asset Backed Securities) and other credit spreads relative to the timing of the purchase price of securities made within these strategies. Opportunistic Investments do not have a specific benchmark as it is measured on an absolute return investment strategy specific to the individual manager mandates and not the asset class itself.

The ASRS earns additional investment income by lending investment securities. State Street Bank & Trust, which is the ASRS' custodial bank acts as agent on behalf of the ASRS for securities lending transactions related to the securities held in custody at State Street. Borrowers provide collateral, either securities or cash, in excess of the value of loaned securities and generally use the borrowed securities to initiate short sales or cover failed trades. The net income from security lending program for FY 2012 was \$4.4 million compared to \$13.8 million for FY 2011. During the late summer and early fall of 2011, ongoing monitoring of ASRS exposures showed growing risks throughout Europe and in the European banking sector. In an effort to reduce the securities lending investment pools' exposure to the European banking sector, the ASRS substantially withdrew from securities lending in September 2011. As a result, the market value of the securities on loan decreased markedly with a concurrent reduction in lending revenues.

#### **Current Market Conditions**

The backdrop of slowing global growth in combination with sizeable fiscal deficits present challenges for fiscal and monetary policymakers. U.S. equity markets stalled during FY 2012 due to concerns over slowing growth while the protracted sovereign debt problems in the Eurozone were a drag on non-U.S. equities. Projections are for slow, but not stellar growth over the next year that will be closely aligned with Federal and stimulus monetary policies.

The ASRS continues to implement the Strategic Asset Allocation policy and will allocate assets tactically within guidelines as market opportunities present themselves.

Additional information is available upon request. Please direct your request to the:

> **ASRS** Financial Services Division 3300 North Central Avenue Phoenix, AZ 85012

## **Combined Statement of Plan Net Assets**

For the Year Ended June 30, 2012 with Comparative Totals for 2011 (Dollars in Thousands)

		Health Benefit Supplement	Disability		
	Retirement Fund	Fund (Note 8)	Fund (Note 8)	2012	bined 2011
	1 4114	(11010 0)	(11010 0)		
ASSETS					
Cash (Note 3)	\$ 25,000	\$ 748	\$ -	\$ 25,748	\$ 5,705
Prepaid benefits	184,805	5,927	-	190,732	-
Total cash and prepaids	209,805	6,675	-	216,480	5,705
RECEIVABLES					
Accrued interest & dividends	64,685	2,849	_	67,534	64,476
Securities sold (Note 3)	421,021	18,542	_	439,563	136,979
Forward contracts (Note 5)	270,531	11,914	_	282,445	846,038
Contributions (Note 7)	34,305	1,066	808	36,179	43,420
Due from other funds (Note11)	-	22,572	2,781	25,353	8,212
Other	6,002	15,599	3,583	25,184	9,941
Total receivables	796,544	72,542	7,172	876,258	1,109,066
INVESTMENTS AT FAIR VALUE (Note 3) Temporary investments Securities lending collateral (Note 4) Equity securities Fixed income securities Real Estate Private Equity Opportunistic Investments Total investments	1,415,279 47,958 16,432,595 5,084,640 1,365,978 1,275,974 625,572 <b>26,247,996</b>	83,299 2,112 720,889 226,271 59,963 57,401 27,971 <b>1,177,906</b>	1,776 - 183,941 64,877 - - - 2 <b>50,594</b>	1,500,354 50,070 17,337,425 5,375,788 1,425,941 1,333,375 653,543 <b>27,676,496</b>	2,329,115 880,893 17,892,251 5,955,506 1,163,155 822,102 379,624 <b>29,422,646</b>
TOTAL ASSETS	27,254,345	1,257,123	257,766	28,769,234	30,537,417
LIABILITIES					
Payable for securities purchased (Note 3)  Payable for securities lending collateral	508,281	22,385	-	530,666	469,940
(Note 4)	47,958	2,112	-	50,070	880,893
Forward contracts payable (Note 5)	238,976	10,525	-	249,501	828,207
Due to other funds (Note 11)	25,183	10.202	170	25,353	8,212
Other	31,853	19,282	273	51,408	35,358
TOTAL LIABILITIES	852,251	54,304	443	906,998	2,222,610
NET ASSETS HELD IN TRUST FOR PENSION/OPEB BENEFITS	\$ 26,402,094	\$ 1,202,819	\$ 257,323	\$ 27,862,236	\$ 28,314,807

The accompanying notes are an integral part of these statements.

# **Combined Statement of Changes in Plan Net Assets**

For the Year Ended June 30, 2012 with Comparative Totals for 2011 (Dollars in Thousands)

		Health Benefit	Long Term		
		Supplement	Disability		
	Retirement	Fund	Fund	Com	bined
Additions	Fund	(Note 8)	(Note 8)	2012	2011
CONTRIBUTIONS					
Member contributions (Note 7)		\$ -		\$ 926,966	
Employer contributions (Note 7)	852,167	54,463	20,998	927,628	859,399
Federal government reimbursement (Note 15)	-	19,978	-	19,978	-
Retrospective rate adjustment reimbursement (Note 16) Transfers from other plans	2 226	15,495	-	15,495	6 427
Purchased Service	2,236 51,423		-	2,236 51,423	6,427 64,385
Total Contributions	1,811,794	89,936	41,996	1,943,726	1,785,187
	1,011,754	05,550	41,550	1,543,720	1,703,107
INCOME FROM INVESTMENT ACTIVITIES					
Net appreciation (depreciation) in fair value (public)	(402,858)	(18,771)	2,619	(419,010)	4,893,382
Interest	192,117	8,534	2,013	200,652	216,535
Dividends	282,677	12,509	-	295,186	277,762
Real Estate	162,964	7,183	_	170,147	189,398
Private Equity	184,452	8,268	_	192,720	129,054
Opportunistic Investments	18,948	840	_	19,788	70,177
Other	12,177	536	4	12,717	42,652
Total income from investment activities	450,477	19,099	2,624	472,200	5,818,960
LESS INVESTMENT ACTIVITY EXPENSES					
Management fees and monitoring services (public)	(54,849)	(2,415)	(205)	(57,469)	(62,290)
Real Estate expense	(29,273)	(1,288)	-	(30,561)	(25,250)
Private Equity expense	(43,966)	(1,977)	-	(45,943)	(29,266)
Opportunistic investments expense	(3,765)	(167)	-	(3,932)	(11,475)
Total investment activity expenses	(131,853)	(5,847)	(205)	(137,905)	(128,281)
Net income from investment activities	318,624	13,252	2,419	334,295	5,690,679
FROM SECURITIES LENDING ACTIVITIES (NOTE 4)					
Security lending income	2,711	119	-	2,830	14,201
Security lending expenses					
Interest (expense) / rebate	2,161	96	-	2,257	1,375
Management fees	(626)	(28)	-	(654)	(1,803)
Total securities lending activities expense	1,535	68	-	1,603	(428)
Net income from securities lending activities	4,246	187	-	4,433	13,773
Total net investment income	322,870	13,439	2,419	338,728	5,704,452
TOTAL ADDITIONS	2,134,664	103,375	44,415	2,282,454	7,489,639
Deductions					
Retirement and disability benefits	2,297,947	93,915	65,190	2,457,052	2,324,602
Survivor benefits	29,731	-	55,150	29,731	23,949
Refunds to withdrawing members, including interest	207,289	_	_	207,289	180,719
Administrative expenses	31,052	1,370	2,740	35,162	31,171
Transfers to other plans	5,024		2,7.10	5,024	6,256
Other	750		17	767	1,069
TOTAL DEDUCTIONS	2,571,793	95,285	67,947	2,735,025	2,567,766
NET INCREASE (DECREASE)	\$ (437,129)	\$ 8,090	\$ (23,532)	\$ (452,571)	\$ 4,921,873
NET ASSETS HELD IN TRUST FOR PENSION/OPEB BENEFITS					
I THE THE THE THE THE THE TOTAL TENDED BY OF LD DENETTED					
Beginning of year	26 830 222	1 10/ 720	280 855	28 314 807	33 303 034
Beginning of year  End of year	26,839,223 <b>\$ 26,402,094</b>	1,194,729 <b>\$ 1,202,819</b>	280,855 <b>\$ 257,323</b>	28,314,807 <b>\$ 27,862,236</b>	23,392,934 <b>\$ 28,314,807</b>

The accompanying notes are an integral part of these statements.

# **NOTES TO THE BASIC FINANCIAL STATEMENTS**

## 1. Description of the System

Organization – The Arizona State Retirement System (ASRS) is a component unit of the state of Arizona. The ASRS is a cost-sharing, multiple-employer, pension plan established by the state of Arizona to provide pension benefits for employees of the State and employees of participating political subdivisions and school districts. The ASRS is administered in accordance with Title 38, Chapter 5, Article 2 of the Arizona Revised Statutes (A.R.S.). The Long Term Disability Program is administered in accordance with Title 38, Chapter 5, Article 2.1.

The ASRS is a qualified governmental pension plan pursuant to I.R.C. §414. The ASRS plan has two components, the Plan and the System. The Arizona State Retirement System's accumulated plan assets are used to pay benefits of either component of members. The System is a defined contribution plan with guaranteed benefits and the Plan is a defined benefit plan. The System was established by the Arizona Legislature in 1953 to provide retirement and other benefits for state employees, teachers, and employees of political subdivisions that elected coverage. In 1943, the Legislature had established the Arizona Teachers' Retirement System (the Teachers' System) to provide benefits for teachers. After the establishment of the ASRS, teachers who were, or later became, eligible through employment covered by the ASRS were transferred to the System. The Teachers' System then became inactive, except for continuation of retirement benefits already being paid and obligations to teacher members who did not become eligible for the ASRS.

The Plan, enacted by the Legislature in 1970, became effective July 1, 1971. Effective July 1, 1981, all non-retired members of the System became members of the Plan as prescribed by Laws of 1980, Chapter 238.

A.R.S. §38-783 and A.R.S. §38-797 require separate accounts be established for health insurance premium benefits and long term disability benefits, respectively. Effective July 1, 1995, the ASRS has established an account for each benefit program and has reported those funds in the basic financial statements. Both the Health Benefit Supplement Fund (HBS) and the Long Term Disability Fund (LTD) are cost-sharing, multiple-employer post-employment benefit plans. Although the investments of the HBS Fund are commingled with investments of the Retirement Fund, the HBS Fund's assets may be used for the payment of HBS benefits only to eligible members.

**Reporting Entity** – The financial statements of the ASRS include the financial activities of all the above funds. The ASRS Retirement Board of Trustees (the Board), appointed by the governor and confirmed by the Arizona State Senate, oversees the ASRS.

Contributions – Participating employers and their employees contribute percentages of employees' salaries for retirement annuities, survivor annuities, health insurance supplements and long term disability in accordance with A.R.S. Employee contributions toward retirement benefits are excluded from gross income for Federal and State income tax purposes. However, employee contributions for long term disability are fully taxable. Employers collect contributions from the employees, add their matching share and remit the total amounts to the ASRS.

State statutes allow the purchase of eligible service credit for which no benefit can be paid by another qualified plan. Purchasable services include leave of absence, military service, other public service employment and previously forfeited service under the ASRS. Statutes also allow purchase of military service regardless of whether a benefit can be paid.

Costs of administering the funds are appropriated by the State legislature and financed through contributions and investment earnings.

At June 30, 2012 and June 30	. 2011.	the number of i	participating er	nplovers and e	mployees totaled:
110 dille 50, 2012 dille 5 dille 5	,,	tile ilailieei oi	participating or	iipio , cib aiia c	mpro , cos totarea.

Employer Units	2012	2011
School Districts	243	243
Charter Schools	148	151
Cities and Towns	80	78
Counties	15	15
Special Districts	93	94
Community College Districts	10	10
Universities	3	3
State Government	1	1
Total	593 <sup>1</sup>	L 595
Employee Members		
Retirees (including Beneficiaries)	112,306	107,172
Non Active Fully Vested	204,203	210,601
Long Term Disability recipients	4,646	4,785
Current Employees - Active	214,346	216,216
Total	535,501	538,774

<sup>&</sup>lt;sup>1</sup> The 593 Employer Reporting Units represent 707 total employers. Of the retirees noted above, 68,358 are receiving health insurance premium benefits.

**Benefits** – The ASRS provides benefits under formulas and provisions described in Arizona state law. Benefits and administrative expenses are paid from funds contributed by members and employers and from earnings on the invested funds. The ASRS provides for retirement, disability, health insurance premium supplemental benefits and survivor benefits. Retirement benefits are calculated on the basis of age, average monthly compensation, and service credit, which is established on a fiscal year basis (July 1 to June 30).

Members with an initial membership date before July 1, 2011 are eligible for full retirement benefits on (a) their 65th birthday, (b) their 62nd birthday and completion of at least 10 years of credited service, (c) when the sum of their age plus total credited service equals 80. Members with initial membership dates on or after July 1, 2011 are eligible for full retirement benefits on (a) and (b) above, (c) their 60<sup>th</sup> birthday and completion of at least 25 years of credited service, or (d) their 55<sup>th</sup> birthday and completion of at least 30 years of service. The benefit is based on a percentage of average monthly compensation multiplied by the years of service credit. The percentage of

average monthly compensation varies with years of service credit according to the following schedule:

Years of Service	)	
0.00-19.99 years	-	2.10%
20.00-24.99 years	-	2.15%
25.00-29.99 years	-	2.20%
30.00 or more years	-	2.30%

Prior to July 1, 2011, average compensation is defined as the period of 36 consecutive months during which a participant receives the highest compensation within the last 120 months of service during which the employee made retirement contributions as required by law. For participants with an initial membership date on or after July 1, 2011, the average monthly compensation is defined as the average of the highest consecutive 60 months in the last 120 months.

The compensation does not include lump sum payments on termination of employment for accumulated vacation or annual leave, sick leave, compensatory time or any other form of termination pay.

## **NOTES TO THE BASIC FINANCIAL STATEMENTS (CONTINUED)**

Members who began participation in the Plan prior to January 1, 1984, may choose to have average monthly compensation determined based upon the period of 60 consecutive months during which the member receives the highest compensation within the last 120 months of service, including lump sum payments as described above. Persons who attain age 50 with at least five years of total credited service may take an early retirement, but the amount of their retirement benefit is actuarially reduced.

Effective July 1, 1988, members of the ASRS are eligible for a Long Term Disability (LTD) benefit in the event they become unable to perform their work. The monthly benefit is equal to two-thirds of their monthly earnings. Participants continue to earn service credit up to their normal retirement dates. Members with LTD commencement dates after June 30, 1999 are limited to 30 years of service or the service on record as of the effective disability date if their service is higher than 30 years.

The Retiree Group Insurance Program offers health insurance coverage for retired and disabled members who are no longer covered by insurance administered by their former member employers. Commencing January 1, 1989, retired and disabled members of ASRS became eligible for the Health Insurance Premium Supplement Benefit Program (HBS). Effective July 29, 2010, members must have insurance provided by either their former employer or ASRS in order to be eligible for HBS. A detailed explanation of both the LTD and HBS programs is presented in the Additional Benefits section (Note 8).

**Termination** – Upon termination of employment, members can elect to receive all of their contributions made to the Plan, plus accrued interest at 4 percent.

Members with an initial membership date before July 1, 2011 can receive a percentage of employer contributions to the plan based on years of service as follows:

Years of Service	% of Employer Contributions
5 to 5.9	25%
6 to 6.9	40%
7 to 7.9	55%
8 to 8.9	70%
9 to 9.9	85%
10 or more	100%

Members with an initial membership date on or after July 1, 2011 will not receive any portion of the employer contributions if they withdraw their account balance prior to retirement. This does not apply to terminations due to an employer reduction in force or position elimination, in which case the above ASRS vesting schedule will apply.

Withdrawal of accumulated contributions results in forfeiture of the member's accrued benefits in the Plan; however, state law provides for reinstatement of a member's forfeited service upon repayment of the accumulated contributions plus interest if a former member returns to covered service.

## 2. Summary of Significant **Accounting Policies**

**Basis of Accounting** – The financial statements are prepared using the accrual basis of accounting under which expenses are recorded when the liability is incurred and revenues are recorded in the accounting period in which they are earned and become measurable. Contributions from employees and employers for service through June 30 are accrued. These contributions are considered to be fully collectible and, accordingly, no allowance for uncollectible receivables is reflected in the financial statements.

Benefit and refund payments are recognized when due and payable in accordance with the terms of the retirement health benefit supplement and long term disability plan.

Investment income derived from publically traded investments is recognized when earned and investment and other expenditures are recorded when incurred. Investment income and expenses derived from private investments are recognized on a quarterly lag.

Investments – Investments include domestic and international equities, domestic fixed income, real estate, private equity, opportunistic, commodities and cash equivalent instruments.

Publically traded investments are reported at fair values determined by the custodial agent. The agents' determination of fair values includes, among other things, utilization of pricing services or prices quoted by independent brokers at current exchange rates.

ASRS' derivative instruments which consist of futures, forward contracts, options, swaps, rights and warrants, are measured at fair value and reported on the Statement of Plan Net Assets. Changes in fair values of derivative instruments are reported as net appreciation of fair value on the Statement of Changes in Plan Net Assets.

Private real estate, private equity and opportunistic investments are valued based upon the partnerships' March 2012 financial statements adjusted for cash flows through June 30, 2012.

Short-term investments are reported at cost plus accrued interest, which approximates fair value. For investments where no readily ascertainable fair value exists, management, in consultation with their investment advisors, has determined the fair values for the individual investments based on anticipated maturity dates and current interest rates commensurate with the investment's degree of risk.

Security transactions and any resulting gains or losses are accounted for on a trade date basis.

Net investment income from investment activities includes net appreciation in the fair value of investments, interest income, dividend income, real estate, private equity and opportunistic investment income and total investment expense. This includes investment management, real estate, private equity and opportunistic investment expenses and all other significant investment related costs. There are certain market risks, credit risks, liquidity risks, foreign currency exchange risks, and event risks which may subject ASRS to economic changes occurring in certain industries, sectors, or geographies. See Note 3 for a more in-depth discussion of risk.

HBS and Retirement investments are pooled. However, investments for each fund are allocated daily via a fluctuating dollar unitization methodology. Realized and unrealized gains are allocated daily using the same methodology.

Capital Assets – Capitalization thresholds have been established as follows:

Furniture and fixtures	\$ 1,000,000
Computers and other equipment	\$ 1,000,000
Internally developed computer software	\$10,000,000
Externally purchased software	\$ 1,000,000
Websites	\$ 1,000,000

As of the year ended June 30, 2012, the ASRS did not have any capitalizable expenditures at or above the above stated thresholds.

Federal Income Tax Status – During the year ended June 30, 2012, the ASRS qualified under Section 401(a) of the Internal Revenue Code (IRC) and was exempt from federal income taxes under Section 501(a) of the IRC.

**Actuarial Valuation** – The information included in the required supplemental schedules is based on the actuarial valuations performed as of June 30, 2011, which is the latest available information. Significant actuarial assumptions used in the valuations are included in the notes to the required supplemental schedules.

## NOTES TO THE BASIC FINANCIAL STATEMENTS (CONTINUED)

**Use of Estimates** – The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Comparative Data – The accompanying financial statements include certain prior-year summarized comparative information in total but not by fund. Such information should be read in conjunction with the ASRS' financial statements for the year ended June 30, 2011, from which the summarized information was derived. Certain 2011 amounts have been reclassified to conform to the 2012 presentation.

**New Accounting Pronouncements** – GASB Statement No. 64 was issued and is effective for periods beginning after June 15, 2011. It amends GASB Statements No. 53, Accounting and Financial Reporting for Derivative Instruments. As the ASRS had already incorporated applicable provisions of GASB Statement No. 64, there is no effect on our financial statements.

## 3. Cash and Investments

Cash – Cash deposits are subject to custodial risk. Custodial risk is the risk that in the event of a bank failure. ASRS' deposits may not be returned to it. Arizona state statutes do not require ASRS deposits to be collateralized. The board has not adopted a more restrictive policy. In addition, the FDIC insures ASRS cash deposits up to \$250,000 per member based on the ratio of the member's account balance to the ASRS net assets.

**Investments** – Investments are subject to a number of risks including custodial credit risk, concentration of credit risk, credit quality risk, interest rate risk and foreign currency risk.

Statutes enacted by the Arizona State Legislature (the Statutes) authorize the ASRS to make investments in accordance with the "Prudent Person" rule. Section 38-719 (B) of the Arizona Revised Statutes interprets the rule to be that investment management shall discharge the duties of their position with the care, skill, prudence and diligence, under the circumstances then prevailing, that a prudent person acting in enterprise of a like character and with like aims as that of the system, subject to certain statutory limitations and restrictions. Within this broad framework, the ASRS has chosen to invest in short-term securities, obligations of the U.S. government or agencies of the U.S. government, corporate bonds, common and preferred stocks (domestic and foreign), mortgages, derivatives, commodities, real estate, private equity and opportunistic investments.

The Statutes place the following restrictions on the ASRS' investment fund portfolio:

- 1. No more than 80 percent of the ASRS' total assets may be invested at any given time in corporate stocks or equity equivalents, based on cost value of the stocks or equity equivalents irrespective of capital appreciation.
- 2. No more than 5 percent of the ASRS' assets may be invested in securities issued by any one institution, agency or corporation, other than securities issued as direct obligations of or fully guaranteed by the U.S. government or mortgage backed securities and agency debentures issued by federal agencies.
- 3. No more than 5 percent of the voting stock of any one corporation may be owned.
- 4. No more than 30 percent of the ASRS' assets may be invested in foreign securities, and those investments shall be made only by investment managers with demonstrated expertise in such investments.
- 5. No more than 10 percent of the ASRS' assets may be invested in bonds or other evidences of indebtedness of those multinational development banks in which the United States is a member nation, including the International Bank for Reconstruction and Development, the African Development Bank, the Asian Development Bank, and the Inter-American

- Development Bank.
- 6. No more than 1 percent of ASRS assets may be invested in economic development projects authorized as eligible for such investment by the Arizona State Department of Commerce.
- 7. No investments in companies that do business in Sudan, Iran, or other State Sponsors of Terrorism countries under certain conditions.

Subject to the limitations noted above, the Board may authorize the Director to make investments that are designated by the Board and that do not exceed 50 percent of the assets of the investment account measured at cost.

The Board has not formally adopted more restrictive policies than required by State Statute for the various types of risks. The management of ASRS believes it has complied with the above guidelines. Management does expect the money managers to abide by contract requirements, which are considerably more restrictive than the statute. Due to the flow of securities to and from transfer agents and the security lending program, securities occasionally cannot be delivered for a sale or received for a purchase, resulting in a "failed" transaction. Securities with trade dates in June and settlement dates in July result in "outstanding" transactions. Since these securities have contractually changed ownership, receivables and payables result from these transactions. Such transactions resulted in a receivable for securities sold of \$439.6 million and a payable for securities purchased of \$530.7 million at June 30, 2012.

Custodial Credit Risk – For an investment, custodial credit risk is the risk that, in the event of a failure of a counter party, the ASRS will not be able to recover the value of its investment or the collateral securities that are in the possession of an outside party. All securities are registered in the name of the ASRS including loaned securities.

Concentration of Credit Risk – Concentration of credit risk is the risk of substantial loss if investments are concentrated in one issuer. Arizona state statute requires that no more than 5 percent of the assets can be invested in one issuer, except for the U.S. government and its agencies. The Board has not adopted a more restrictive policy. No investments, other than short term mutual funds, account for 5 percent or more of the ASRS assets.

# **Investments by Investment Type**

Investment	Retirement HBS	LTD	2012 Fair Value
TEMPORARY INVESTMENTS			
Cash and Cash Equivalents	\$ 552,500 \$	1,776	\$ 554,276
Foreign Currency	134,786	-	134,786
Temporary Investments including U.S. Tbills	811,292	-	811,292
Total Temporary Investments	1,498,578	1,776	1,500,354
SECURITIES LENDING COLLATERAL			
Domestic Equity	25,655	-	25,655
Non-U.S. Equity	24,160	-	24,160
Domestic Fixed Income	255	-	255
Total Securities Lending Collateral	50,070	-	50,070
EQUITY SECURITIES			
Domestic Equity	12,450,497	140,331	12,590,828
Non-U.S. Equity	4,702,987	43,610	4,746,597
Total Equity Securities	17,153,484	183,941	17,337,425
FIXED INCOME SECURITIES			
Corporate Obligations	2,222,398	6,021	2,228,419
Government Obligations	3,088,513	58,856	3,147,369
Total Fixed Income Securities	5,310,911	64,877	5,375,788
OTHER INVESTMENTS			
Real Estate	1,425,941	-	1,425,941
Private Equity	1,333,375	-	1,333,375
Opportunistic	653,543	-	653,543
Total Other Investments	3,412,859	-	3,412,859
TOTAL INVESTMENTS AT FAIR VALUE	27,425,902	250,594	27,676,496
Short Term Investment Receivables	792,019	-	792,019
Short Term Investment Payables	(844,826)		(844,826)
INVESTMENTS AT FAIR VALUE - NET	\$27,373,095	\$ 250,594	\$27,623,689

Credit Quality Risk – Credit quality risk is the risk that the issuer will not fulfill its obligations to the purchaser of its debt instruments. Arizona state statutes are not specific as to the credit ratings of the investments of the ASRS. The statutes require the Prudent Person

Rule. The Board has not adopted a formal policy on credit ratings. The present management policy is to set standards for each portfolio manager based on an assessment of their expertise.

The following table presents the fixed income investments at June 30, 2012 categorized to give an indication of the level of risk assumed by ASRS:

# **Debt Securities Credit Quality Risk (Fixed Income Securities)**

Moody's Credit Rating	Fair Value	Fair Value as Percent of Total Debt Securities Investments
Aaa	\$ 363,533	6.76%
Aa1-Aa3	2,716,373	50.53%
A1-A3	391,396	7.28%
Baa1-Baa3	401,501	7.47%
Ba1-Ba3	271,468	5.04%
B1-B3	392,229	7.30%
Caa1-Caa3	151,346	2.82%
Ca-C	6,284	0.12%
NR <sup>1</sup>	29,942	0.56%
NA <sup>2</sup>	651,716	12.12%
Total <sup>3</sup>	\$ 5,375,788	100.00%

<sup>&</sup>lt;sup>1</sup> NR total of \$29,942 represents those securities that are not rated.

<sup>&</sup>lt;sup>2</sup> NA represents those securities that are not applicable to the rating disclosure requirement. The fair value of \$651,716 is classified as Corporate Bonds totaling \$217,344 and Government Bonds totaling \$434,372.

<sup>&</sup>lt;sup>3</sup> Total of \$5,375,788 represents the total corporate bonds of \$2,228,419 and total government bonds of \$3,147,369.

## **NOTES TO THE BASIC FINANCIAL STATEMENTS (CONTINUED)**

Interest Rate Risk – Interest rate risk is the risk that debt securities will lose value due to rising interest rates. Arizona state statutes are silent regarding interest rate risk. The Board has not adopted a specific formal policy for interest rate risk. It does set more restrictive requirements in its contracts with money managers. The ASRS uses effective duration to identify and man-

age its interest rate risk. Effective duration measures the expected change in value of a fixed income security for a given change in interest rate. The method takes into account the likely timing and amounts of variable cash flows for bonds with call options and prepayment provisions.

The following table shows the effective duration by investment type:

## **Interest Rate Risk**

T	- :- <b>V</b> - !	Effective Duration
Investment	 air Value	(in years)
DOMESTIC FIXED INCOME INVESTMENTS		
Asset Backed Securities	\$ 204,094	2.3
Commercial Mortgage Backed	232,768	2.9
Corporate Bonds	1,758,232	4.9
Non-Government Backed CMO's	33,325	7.2
Total Corporate Bonds	2,228,419	
GOVERNMENT BONDS		
Government Related	509,250	7.2
Government Agencies CMO's	46,306	2.4
Government Bonds	1,246,563	8.1
Government Mortgage Backed	1,345,250	2.0
Total Government Bonds	3,147,369	<b>-</b>
TOTAL DEBT SECURITIES	\$ 5,375,788	

Foreign Currency Risk – Foreign currency risk is the risk that changes in the foreign exchange rate will adversely impact the fair value of an investment. The ASRS is allowed to invest part of its assets in foreign investments. According to Arizona State statutes, no more than 30 percent of ASRS assets may be invested

in foreign securities and the investments must be made by investment managers with expertise in those investments. The Board has not adopted a formal policy that is more restrictive. Management does have certain policies in the contracts with the money managers permitted to invest in foreign denominated securities.

The following table shows exposure to foreign currency risk (U.S. dollars):

## **Foreign Currency Risk**

Currency Type	mporary estments	Fixed Income	s	Equity ecurities	ı	Real State	Priv Equ		Total
Australian Dollar	\$ 266	\$ -	\$	50,278	\$	-	\$	-	\$ 50,544
Brazilian Real	-	-		3,064		-		-	3,064
Canadian Dollar	(150)	4,809		38,724		-		-	43,383
Danish Krone	61	-		15,003		-		-	15,064
Euro Currency	14,080	11,202		323,503		35,540	153	,391	537,716
Hong Kong Dollar	250	-		44,920		-		-	45,170
Israeli Shekel	1	-		702		-		-	703
Japanese Yen	2,525	-		252,698		-		-	255,223
New Taiwan Dollar	1	-		14,832		-		-	14,833
New Zealand Dollar	22	-		622		-		-	644
Norwegian Krone	2	-		6,130		-		-	6,132
Pound Sterling	1,069	5,109		321,133		-		-	327,311
Singapore Dollar	8	-		39,923		-		-	39,931
South Korean WON	-	-		21,772		-		-	21,772
Swedish Krona	7	-		36,213		-		-	36,220
Swiss Franc	1,072	-		155,624		-		-	156,696
Total	\$ 19,214	\$ 21,120	\$	1,325,141	\$	35,540	\$ 153,	391	\$ 1,554,406

## 4. Securities Lending Program

Arizona Revised Statutes Section 38-715(D)(3) allows the ASRS to participate in a securities lending program. The ASRS' custodial bank enters into agreements with borrowers to loan securities and have the same securities redelivered at a later date. All securities are eligible for loan (U.S. fixed income securities, U.S. and international equities) with a higher percentage of U.S. equities on loan than most other security types.

The ASRS currently receives as collateral at least 102 percent of the market value of the loaned securities and maintains collateral at no less than 100 percent for the duration of the loan. At year-end, the ASRS had no counter party risk to borrowers because the amount the ASRS owes the borrowers exceeds the amount the borrowers owe the ASRS. Securities loaned are initially fully collateralized by cash (USD and Euro), irrevocable letters of credit, U.S. Government or Agency securities, sovereign debt, corporate bonds and equities. Cash collateral may be reinvested (under certain constraints) in:

- a) Instruments issued or fully guaranteed by the U.S. Government, Federal agencies, or sponsored agencies or sponsored corporations,
- b) Instruments issued by domestic corporations including corporate notes and floating rate notes,
- c) Obligations of approved domestic and foreign banks.
- d) U.S. dollar-denominated instruments issued by sovereigns, sovereign supported credits, and instruments of foreign banks and corporations,
- e) Repurchase agreements,
- f) Insurance company funding agreements, guaranteed investment contracts and bank investment contracts,
- g) Money market mutual funds.

The ASRS records the cash collateral received and the same amount as an obligation for securities on loan. The maturities of the investments are closely matched to those of the security loans to avoid interest rate exposure. The ASRS receives a spread for its lending activi-

ties. Investments made with cash collateral are classified as an asset on the Statement of Plan Net Assets. A corresponding liability is recorded as the ASRS must return the cash collateral to the borrower upon expiration of the loan. At June 30, 2012, the fair value of securities on loan was \$49.4 million; all of which were cash collateralized loans. Cash of \$50.1 million received as collateral for securities loaned was reinvested and had a net asset value of \$49.7 million as of June 30, 2012. The securities lending payable at June 30, 2012, was \$50.1 million. The ASRS does not have the ability to pledge or sell the collateral unless there is a borrower default. There are no restrictions on the dollar amount of security loans that may be made by the ASRS. The ASRS is indemnified against gross negligence and borrower default by the lending agents but is not indemnified against cash collateral reinvestment risk.

During the late summer and early fall of 2011, ongoing monitoring of ASRS securities lending exposure showed growing risks throughout Europe and in the European banking sector. In an effort to reduce the securities lending investment pools' exposure to the European banking sector, the ASRS substantially withdrew from securities lending in 2011. As a result, the market value of securities on loan decreased from \$3.45 billion as of June 30, 2011 to \$49.4 million at June 30, 2012.

#### 5. Derivatives

A derivative instrument is a financial instrument or other contract with all three of the following characteristics:

- Settlement Factors: It has one or more reference rates and one or more notional amounts or payment provisions or both. Those terms determine the amount of the settlement or settlements, and, in some cases whether or not a settlement is required,
- b) Leverage: It requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts

- that would be expected to have a similar response to changes in market factors,
- c) Net Settlement: Its terms require or permit net settlement, it can readily be settled net by means outside the contract, or it provides for delivery of an asset that puts the recipient in a position not substantially different from net settlement.

ASRS' derivatives are considered "Investment Derivative Instruments" as defined in GASB 53 "Accounting and Financial Reporting for Derivative Instruments". All funds are considered fiduciary funds.

ASRS' derivative instruments which consist of futures contracts, forward contracts, options, swaps, rights and warrants are measured at fair value and reported on the Statement of Plan Net Assets. Changes in fair values of derivative instruments are reported as net appreciation of fair value on the Statement of Changes in Plan Net Assets.

The fair value balances and notional amounts of derivative instruments outstanding at June 30, 2012, classified by type, and the changes in fair value of derivative instruments for the year then ended as reported in the June 30, 2012 financial statements are as follows:

## **Investment Derivatives by Type**

(Dollars in Thousands)

	Changes in Fair Val	ue (1)	Fair Value at June 30, 2012					
Investment Derivatives	Classification	Amount (2)	Classification	Amount (3)	Notional (4)			
Commodity Futures Long	Net Appreciation in Fair Value	\$ (67,680)	Not Applicable	\$ -	212,03			
Commodity Futures Short	Net Appreciation in Fair Value	3,925	Not Applicable	-	(24			
Credit Default Swaps Bought	Net Appreciation in Fair Value	473	Equity Securities	1,534	\$ 47,71			
Credit Default Swaps Written	Net Appreciation in Fair Value	54	Equity Securities	161	\$ 29,02			
Fixed Income Futures Long	Net Appreciation in Fair Value	88,416	Not Applicable	-	213			
Fixed Income Futures Short	Net Appreciation in Fair Value	(21,366)	Not Applicable	-				
Fixed Income Options Bought	Net Appreciation in Fair Value	97	Equity Securities	472	19,40			
Fixed Income Options Written	Net Appreciation in Fair Value	1,095	Equity Securities	(1,581)	(182,000			
Foreign Currency Futures Long	Net Appreciation in Fair Value	(6,595)	Not Applicable	-	255,73			
Foreign Currency Futures Short	Net Appreciation in Fair Value	14,973	Not Applicable	-				
Foreign Currency Options Bought	Net Appreciation in Fair Value	(71)	Equity Securities	321	23,85			
Foreign Currency Options Written	Net Appreciation in Fair Value	(20)	Not Applicable	-				
Futures Options Written	Net Appreciation in Fair Value	74	Not Applicable	-				
Foreign Currency Forwards	Net Appreciation in Fair Value	(6,328)	Forward Contracts Receivable	542	\$ 244,45			
Index Futures Long	Net Appreciation in Fair Value	(90,881)	Not Applicable	-	13,50			
Index Futures Short	Net Appreciation in Fair Value	1,606	Not Applicable	-				
Pay Fixed Interest Rate Swaps	Net Appreciation in Fair Value	(7,265)	Equity Securities	(1,827)	\$ 40,50			
Receive Fixed Interest Rate Swaps	Net Appreciation in Fair Value	1,906	Equity Securities	1,654	\$ 73,14			
Rights	Net Appreciation in Fair Value	99	Equity Securities	192	\$ 72			
Warrants	Net Appreciation in Fair Value	118	Equity Securities	27	\$ 27			
Total		\$ (87,370)		\$ 1,495				

- (1) Excludes futures margin payments.
- (2) Negative values (in brackets) refer to losses.
- (3) Negative values refer to liabilities.
- (4) Notional may be a dollar amount or size of underlying futures and options; negative values refer to short positions.

## NOTES TO THE BASIC FINANCIAL STATEMENTS (CONTINUED)

The fair value of derivative instruments reported by ASRS is based on quoted market prices off national exchanges. The fair value of foreign currency forward contracts are based on mathematical models and are valued using a pricing service, which uses published Reuter's foreign currency rates as the primary source for the calculation.

**Credit Risk** – The credit quality ratings of counterparties as described by nationally recognized statistical rating organizations and the counterparties related risk concentration as of the end of the reporting period are as follows:

## **Counterparty Risk and Ratings**

(Dollars in Thousands)

Counterparty Name	al Net	Risk Concentration	S&P	RATINGS Fitch	Moody's
Australia And New Zealand Banking Group	\$ 25	0.50%	AA-	AA-	Aa2
Barclay's Bank, PLC Wholesale	722	14.36%	A+	Α	A2
Barclay's Capital	17	0.34%	<b>A</b> +	Α	A2
BNP Paribas, S.A.	12	0.24%	AA-	A+	A2
Citibank N.A.	409	8.13%	Α	Α	А3
Citigroup Global Markets, CME	138	2.74%	A-	Α	Baa2
Credit Suisse FOB CME	124	2.47%	<b>A</b> +	Α	A1
Credit Suisse London Branch	1	0.02%	<b>A</b> +	Α	A1
Deutsche Bank London	854	16.98%	A+	A+	A2
Goldman Sachs Capital Markets, L.P.	4	0.08%	A-	Α	А3
HSBC Bank USA	1,399	27.82%	AA-	AA	A1
JP Morgan Chase Bank N.A.	522	10.38%	A+	AA-	Aa3
Royal Bank of Canada	7	0.14%	AA-	AA	Aa3
Royal Bank of Scotland, PLC	20	0.40%	Α	Α	А3
Standard Chartered Bank	210	4.18%	AA-	AA-	A1
State Street Bank and Trust Co.	77	1.53%	AA-	A+	Aa2
USB AG	475	9.45%	Α	Α	A2
Westpac Banking Corporation	12	0.24%	AA-	AA-	Aa2
Total	\$ 5,028	100.00%			

The maximum amount of loss due to credit risk that the ASRS would incur if the counterparties to the derivative instrument failed to perform according to the terms of the contract, without respect to any collateral or other security or netting arrangement, is the total unrealized gain of derivatives at the end of the reporting period.

ASRS has no general investment policy requiring collateral or other security to support derivative instruments. Each investment manager hired has discretion with respect to derivative investments and risk control. Each invest-

ment manager is governed by its Investment Manager Agreement.

ASRS has no general investment policy with respect to netting arrangements. ASRS' investment managers have master netting arrangements to allow net settlement with the same counterparty in the event the counterparty defaults on its obligations.

ASRS' derivatives do not have contingent features.

The aggregate fair value of investment derivative instruments in asset positions at June 30, 2012 was \$5.0 million. This represents the maximum amount of loss in case of default of all counterparties for the aggregated (positive) fair value of over-the-counter positions as of June 30, 2012. There was no collateral received or netting arrangements in place at June 30, 2012 with counterparties that would reduce this exposure.

**Interest Rate Risk** – The ASRS has exposure to interest rate risk due to the investment in an interest rate swap agreement. The required risk disclosures are included in the Interest Rate Risk schedule in Note 3.

The fair value balance and notional amount of the interest rate swap outstanding at June 30, 2012, for the year then ended as reported in the June 30, 2012 financial statements are as follows:

## **Interest Rate Risk for Interest Rate Swap**

(In Thousands)

Asset ID	Asset Description	Interest Rate	Fai	r Value	Notional
PAY FIXED INT	EREST RATE SWAPS				
99S0BNJ83/ 99S0BNJ91	BWU0830U7 IRS USD R V 03MLIBOR / BWU0830U7 IRS USD P F 2.75000	2.75%	\$	(367)	\$ 7,200
99S0BXJZ1/ 99S0BXK06	BWU0640U7 IRS USD R V 03MLIBOR / BWU0640U7 IRS USD P F 2.25000	2.25%		(1,460)	33,300
Total Pay	Fixed Interest Rate Swaps		\$	(1,827)	\$ 40,500
RECEIVE FIXED	INTEREST RATE SWAPS				
99S0AQS53/ 99S0AQS61	SWU026R29 IRS BRL R F 10.53000 / SWU026R29 IRS BRL P V 00MBZDIO	10.53%	\$	1,392	\$ 40,774
99S0CHEZ0/ 99S0CHF06	SWU0083W7 IRS CAD R F 2.0000 / SWU0083W7 IRS CAD P V 03MCDOR	2.00%	\$	124	\$ 17,657
99S0CKO58/ 99S0CKO66	SWU000609 IRS CAD R F 2.25000 / SWU000609 IRS CAD P V 03MCDOR	2.25%		138	14,714
Total Reco	eive Fixed Interest Rate Swaps	•	\$	1,654	\$ 73,145

Foreign Currency Risk – ASRS is exposed to foreign currency risk on its foreign currency forward contracts and future contracts. The required risk disclosures are included in the Foreign Currency Risk schedule in Note 3.

6. Funding Status and Progress

Significant actuarial assumptions used in the June 30, 2011 Actuarial Valuation for the Retirement and the Health Insurance Premium Benefit Plans, the most recent actuarial valuation available, include: a rate of return on investment of present and future assets of 8 percent, compounded annually, projected salary increases ranging from 4 percent to 9 percent per year, inflation rate assumption of 3.25 percent, rates of disability, rates of withdrawal, rates of retirement, mortality rates, mortality rates after

disability, valuation of assets using fair value less ten year phase-in, investment income, and the Projected Unit Credit (PUC) funding method. The unfunded accrued liability is amortized over a thirty year rolling period.

Significant actuarial assumptions used in the June 30, 2011 Actuarial Valuation for the Long Term Disability Plan, the most recent actuarial valuation available, are the same as those used in the valuation of the Retirement Plan and the Health Insurance Premium Benefit Plan. The Long Term Disability Plan valuation uses the Projected Unit Credit (PUC) method of funding. Assets are valued at market, plus (or minus) an adjustment to reflect investment gains (or losses) over a ten year period. The unfunded actuarial accrued liability is amortized over a rolling fifteen years in level dollar payments.

## NOTES TO THE BASIC FINANCIAL STATEMENTS (CONTINUED)

All assumptions used in the actuarial valuations are based on five year experience studies. The ASRS Board approves all substantive actuarial assumptions and methods.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment and mortality. Actuarially determined amounts are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

The schedules of funding progress, presented as required supplementary information following the notes to the financial statements, present multi-year trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Schedules of employer contributions, also presented as required supplementary information following the notes to the financial statements, present trend information about the amounts contributed to the plan by employers in comparison to the annual required contribution (ARC).

The funded status of each plan as of the most recent actuarial valuation date is as follows (dollar amounts in millions):

Actuarial Valuation	Actuarial Value of Assets	Actuarial Accrued Liability Projected Unit-Credit	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll				
June 30	a	b	(b - a)	(a/b)	С	[(b-a)/c]				
RETIREMENT	PLAN									
2011	\$ 27,984	\$ 37,051	\$ 9,067	75.5%	\$ 9,061	100.1%				
HEALTH INSU	RANCE PRI	EMIUM BENE	FIT							
2011	\$ 1,247	\$ 1,504	\$ 257	82.9%	\$ 9,061	2.8%				
LONG TERM D	LONG TERM DISABILITY PROGRAM									
2011	\$ 308	\$ 456	\$ 148	67.5%	\$ 9,061	1.6%				

The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost for each year and amortize any unfunded actuarial liabilities (or funding excess) over a thirty year rolling period for the Retirement and HBS plans and over fifteen years in level dollar payments for the LTD plan.

The funding progress and the ARC have been actuarially determined in accordance with the parameters of GASB Statement 25 for the Retirement Plan and GASB Statement 43 for the Health Benefit Supplement and LTD Plans.

Projections of benefits for financial reporting purposes are based on the substantive plan and include the types of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

# 7. Contributions Required and Contributions Made

The Arizona State Statutes provide statutory authority for determining the employees' and employers' contribution amounts as a percentage of covered payrolls. Employers are required to contribute at the same total rate as employees. Employees' contributions are applied towards the Retirement Plan and LTD. Employers' contributions are applied towards the Retirement Plan, Health Insurance,

Premium Supplement Plan, and the LTD Plan. There is no legal or contractual maximum contribution rate for employees or employers.

Legislation, which became law as of July 1, 2005, requires annual contribution rate calculations for all fiscal years beginning after fiscal year end 2007. The actuarial assumptions used in this measure are those adopted by the ASRS' Board in November 2009 and November 2011. The contribution rates for the retirement, the health insurance premium supplement and the long term disability

plans were actuarially determined using the projected unit credit (PUC) funding method.

Each employer and each member contribute at a rate of one-half the total percent of pay needed to pay the normal cost of the Plan and to amortize the unfunded actuarial accrued liability over a rolling thirty-year period for the retirement plan and the health insurance supplement plan. The long term disability plan uses a rolling fifteen-year period to reflect the shorter duration of LTD benefits.

The contribution rates for the years ended June 30, 2012 and 2011 were as follows:

	(2010 V	aluation)	(2009 Va	luation) 1		
		tion period ending 80, 2012	For the contribution period endir June 30, 2011			
	Amount	Percent of Covered Payroll	Amount	Percent of Covered Payroll		
RETIREMENT						
Normal cost	\$ 1,215,140,371	12.90%	\$ 1,234,664,757	12.55%		
Amortization of under-funded past service liability	699,150,795	5 7.47%	591,883,524	6.06%		
Retirement Total	1,914,291,166		1,826,548,281	18.61%		
HEALTH PREMIUM BENEFIT TOTAL						
Normal cost	40,276,497	0.43%	41,883,708	0.43%		
Amortization of under-funded past service						
liability	19,262,240		15,302,394	0.16%		
Health Premium Benefit Total	59,538,737	0.63%	57,186,102	0.59%		
LONG TERM DISABILITY						
Normal cost	30,456,285	0.32%	33,519,857	0.34%		
Amortization of under-funded past service						
liability	17,087,235		17,853,806	0.16%		
Long Term Disability Total	47,543,520	0.50%	51,373,663	0.50%		
ACTUARIAL TOTAL	2,021,373,423	21.50% <sup>2</sup>	1,935,108,046	19.70%		
CONTRIBUTIONS MADE AS A PERCENTAGE OF	THE CURRENT YEAR	R COVERED PAYROLL				
Employers' Retirement	850,456,018	9.87%	782,266,766 <sup>1</sup>	9.01%		
Employees' Retirement	905,967,958	10.50%	833,205,706 <sup>1</sup>	9.60%		
Employers' Health Premium Benefit	54,462,585	0.63%	51,047,543	0.59%		
Employers' Long Term Disability	20,998,181	0.24%	21,689,214	0.25%		
Employees' Long Term Disability	20,998,181	0.24%	21,689,310	0.25%		
Total	\$ 1,852,882,923	21.48% <sup>2</sup>	\$ 1,709,898,539	19.70%		

Values shown do not include System assets and liabilities, for valuation dates prior to June 30, 2010. Retirement contributions from the employer for the year ended June 30, 2012 reflect total employer contributions of \$852,167,123 less \$1,711,105 billed to employers for early termination incentive offers. Retirement contributions from the employer for the year ended June 30, 2011 reflect total employer contributions of \$786,581,145 less \$4,314,379 of unfunded employer liabilities.

<sup>&</sup>lt;sup>2</sup> The difference is due to rounding adjustment resulting from the retroactive reversion of the contribution rate from 53/47 back to 50/50 as of July 1, 2011.

The statutory contribution rate and actuarially determined contribution rate for the year ended June 30, 2011 was 9.85 percent for both the employees' and employers' portion. (Employees paid 9.60 percent retirement and .25 percent long term disability. Employers paid 9.01 percent retirement, .59 percent for the health insurance premium supplement and .25 percent for long term disability.) This rate was determined by the 2009 actuarial valuation. It is applied to the covered payroll to determine the employee and employer contributions. The statutory contribution rate and the actuarially determined contribution rate for the year ended June 30, 2012 was 10.74 percent for both the employees' and employers' portion. (Employees paid 10.50 percent retirement and .24 percent long term disability. Employers paid 9.87 percent for retirement, .63 percent for the health insurance premium supplement and .24 percent for long term disability.) This rate was determined by the 2010 actuarial valuation. It is applied to the covered payroll to determine the employee and employer contributions. GASB Statement No. 25 defines covered payroll as all elements included in compensation paid to active employees on which contributions to a pension plan are based.

Early termination incentive offers billed to employers of \$1.7 million are included in total employer contributions for the year ended June 30, 2012. Pursuant to A.R.S. §38-749, employers must pay any unfunded liability resulting from termination incentive programs that they offer if the incentive results in an actuarial unfunded liability to ASRS. The unfunded liabilities were calculated by ASRS' actuary. The following summarizes total employer contributions for the years ended June 30, 2012 and 2011:

	2012	2011 <sup>1</sup>
Employer contributions	\$850,456,018	\$782,266,766
Unfunded liabilities	1,711,105	4,314,379
	\$852,167,123	\$786,581,145

<sup>&</sup>lt;sup>1</sup> 2011 does not included System.

#### 8. Additional Benefits

In addition to the pension benefits described, the ASRS offers the Retiree Group Insurance Program and the Health Insurance Premium Benefit Program to eligible retired and disabled members. A retired member is defined as a member actively receiving an annuity benefit and a disabled member is defined as a member receiving an LTD benefit through the LTD program administered by the ASRS. The employees and member employers each contributed .24 percent of compensation to the LTD fund in FY 2012 and .25 percent in FY 2011.

Pursuant to A.R.S. §38-782, the Retiree Group Insurance Program makes available group health insurance coverage to eligible retired and disabled members and their dependents. Retired and disabled members of the ASRS, University Optional Retirement Plans, the Public Safety Personnel Retirement System, the Elected Officials' Retirement Plan and the Corrections Officer Retirement Plan are eligible for health insurance benefits through the ASRS. As of June 30, 2012, more than 45,766 coverage agreements currently exist for retired and disabled members and their dependents.

Pursuant to A.R.S. §38-783, retired and disabled members with at least five years of credited service are eligible to participate in the Health Insurance Premium Benefit Program. This assistance is provided to those members who elect group coverage through either the ASRS Retiree Group Insurance Program or their former member employer.

In FY 2012 the employer's retirement contribution of 10.50 percent of compensation included .63 percent for the Health Premium Insurance Supplement.

Members who retire after December 31, 2003, can elect to receive a reduced premium benefit so that an eligible contingent annuitant may continue to receive a premium benefit after the member's death. The ASRS reim-

bursed approximately \$94.0 million and \$92.0 million towards the cost of group health insurance coverage for the years ended June 30, 2012 and 2011, respectively.

The following chart illustrates the maximum amount of the monthly available benefit for eligible members and their dependents:

		WITH	ΙΟU	T MEDICARE	w	ITH ME	DIC	ARE A&B	COMBIN	ΙΑΊ	TIONS
Years of Credited Service	Percent of Premium Benefit	Retir Onl		Retiree & Dependents		etiree Only		etiree & pendents	Retiree & Dependent, One ith Medicare, the other without		Retiree & Dependent with Medicare, other ependent without
5.0-5.9	50 percent	\$	75	\$ 130	\$	50	\$	85	\$ 107.50	\$	107.50
6.0-6.9	60 percent		90	156		60		102	129.00		129.00
7.0-7.9	70 percent	1	.05	182		70		119	150.50		150.50
8.0-8.9	80 percent	1	.20	208		80		136	172.00		172.00
9.0-9.9	90 percent	1	.35	234		90		153	193.50		193.50
10.0+	100 percent	1	.50	260		100		170	215.00		215.00

## 9. Contingent Liabilities

The ASRS is also a party in various litigation matters. While the final outcome cannot be determined at this time, management is of the opinion that the final obligation, if any, for these legal actions will not have a material adverse effect on the ASRS' financial position or results of operations.

#### 10. Commitments

In connection with the purchase of various limited partnership interests in real estate, private equity and opportunistic investment portfolios, the ASRS has commitments totaling \$5.8 billion. Remaining unfunded commitments for real estate, private equity and opportunistic investments are \$454.5 million, \$1.4 billion and \$482.4 million, respectively, as of June 30, 2012.

# 11. Due To and From Other Funds

Due to/from other funds includes amounts that need to be transferred after the year end resulting from allocations of contribution revenue as well as allocations of pooled cash, and pre-paid benefits.

# 12. Required Supplementary Schedules

Historical trend information designed to provide information about the ASRS' progress in accumulating sufficient assets to pay benefits when due is required supplementary information. Required Supplementary Information prepared in accordance with the parameters of GASB Statement No. 25 and GASB Statement No. 43 is included immediately following the Notes to the Financial Statements.

#### 13. Retirement Plans

All eligible ASRS employees participate in the Arizona State Retirement System. The ASRS is a cost-sharing, multiple-employer, defined benefit pension plan established by the State of Arizona to provide pension benefits for employees of the State and employees of participating political subdivisions and school districts. The ASRS is administered in accordance with Title 38, Chapter 5, Article 2 of the A.R.S. The Long Term Disability Program is administered in accordance with Title 38, Chapter 5, Article 2.1.

The ASRS Retirement Plan provides retirement, disability benefits and survivor benefits to members and their beneficiaries. A.R.S. §38-783 and A.R.S. §38-797 require separate accounts be established for health insurance premium benefits and long term disability (LTD) benefits, respectively.

Effective July 1, 1995, the ASRS has established a fund for each benefit program and has reported those funds in the combined financial statements. The financial statements of the ASRS include the financial activities of all the above funds. The Board, appointed by the governor and confirmed by the Arizona State Senate, manages the ASRS.

The contribution rate is established and may be amended by the Board. The contribution rates for the Retirement, the HBS and the LTD plans are actuarially determined using the PUC funding method. There is no legal or contractual maximum contribution rate for employees or employers. The statutory contribution rates for the years ended June 30, 2012 and June 30, 2011, were 10.74 percent (10.50 percent retirement and .24 percent LTD) and 9.85 (9.60 percent retirement and .25 percent LTD), respectively. All eligible ASRS employees were required to contribute 10.50 percent of their annual covered salary, and the ASRS, as the employer, was required to match these contributions. The contributions were equal to the required contributions.

The ASRS collects the contributions and remits them to the Plan. Employee contributions, except for LTD, are excluded from gross income for federal and state income tax purposes and earn interest at the rate of 8 percent per annum.

After June 30, 2005, contributions made to the Plan, plus accrued interest of 4 percent per annum, are refundable upon termination of employment.

The Plan provides benefits under formulas and provisions described in the law. Benefits and administrative expenses are paid from funds contributed by members and employers and from earnings on the invested funds.

Retirement benefits are calculated on the basis of age, average monthly compensation and service credit, which is established on a fiscal year basis (July 1 to June 30). The benefit is based on a percentage of average monthly compensation multiplied by the years of service credit.

Qualified ASRS employees are eligible for a LTD benefit in the event they become unable to perform their work. The Retiree Group Insurance Program offers health insurance coverage for both retired and disabled members.

Refer to Note 6 of these financial statements for current information regarding the funding status and progress of the retirement, health insurance premium benefit and the long term disability plans.

Fiscal Year	Salary Base <sup>1</sup>	Retirement Contributions		HBS Contributions		Cor	LTD ntributions	Con	Total tributions	% of Required Contributions
2010	\$10,894,788	\$	907,516	\$	71,814	\$	44,780	\$	1,024,110	100%
2011	10,170,633		915,762		59,958		26,090		1,001,810	100%
2012	11,351,146		1,090,891		73,347		27,632		1,191,870	100%

The ASRS, as the employer, made contributions for the past three years as follows:

## 14. Significant New Legislation

The 50<sup>th</sup> Legislature of the State of Arizona adjourned May 3, 2012. The most significant bill that passed was HB 2264 which retroactively effective to July 2011, returns the ASRS employer's contribution rate to 50%, rather than 47%, and returns the employee's contribution rate to 50%, rather than 53%. See Introductory Section for a complete listing of new legislation.

# 15. Early Retiree Reinsurance **Program**

The ASRS participated in the Early Retiree Reinsurance Program (ERRP) beginning in FY 2012. ERRP is managed by the U.S. Department of Health and Human Services and reimburses employers for pre-Medicare health care costs. The ERRP was designed to provide financial assistance to health plan sponsors that make coverage available to early retirees (aged 55 and older) that are not yet eligible for Medicare. The program stipulates that the funds may only be used to:

- Reduce contribution levels (premiums) for all plan participants, to the extent possible, to 2009 levels.
- Mitigate ASRS health benefit cost increases while keeping minimum funding to at least 2009 levels,
- Hold in escrow to maintain member contributions and mitigate health benefit cost increases in future years.

The funds must be used by December 31, 2014. As of June 30, 2012 the ASRS has received \$19,978,334 in ERRP money.

## 16. Retrospective Rate Adjustment Refund

The ASRS and eligible retirees pay premiums on a monthly basis to a contracted health insurance provider as consideration for health insurance coverage provided. The ASRS contract with the insurance provider allows for a portion of the difference between the total revenues and total claims expenses incurred by the provider to be distributed back to the ASRS in the form of a retrospective rate adjustment refund. The amount is calculated based on targeted retention ratio as agreed upon per the contract and may fluctuate from year to year. During 2012 the ASRS received \$15,494,699 in a retrospective rate adjustment refund for revenue and claims expense activity during calendar year 2011.

Represents salaries paid by ASRS as an employer on which contributions have been calculated.

# REQUIRED SUPPLEMENTARY INFORMATION

# **Schedule of Funding Progress**

For Year Ended June 30, 2012 (Dollars in Millions)

Actuarial Valuation Date June 30	Va A	tuarial alue of ssets a	Actuarial Accrued Liability Projected Unit-Credit		Ac Ac Li	funded tuarial ccrued ability b - a)	Funded Ratio (a/b)	 vered ayroll	Unfunded Actuarial Accrued Liability as a Percentage of Covered Payroll [(b-a)/c]
RETIREMENT F				20.100			24.2.04	0.010	50.0 o/
2006	\$	23,767	\$	28,192	\$	4,425	84.3 %	\$ 8,312	53.2 %
2007		25,310		30,390		5,080	83.3	9,162	55.4
2008		26,613		32,425		5,812	82.1	9,708	59.9
2009		27,094		34,290		7,196	79.0	9,835	73.2
2010		27,572		36,073		8,501	76.4	9,420	90.2
2011		27,984		37,051		9,067	75.5	9,061	100.1
HEALTH INSUR	ANCE	PREMIUM	BEN	FIT					
2006	\$	1,085	\$	1,505	\$	420	72.1 %	\$ 8,312	5.1 %
2007		1,167		1,605		438	72.7	9,162	4.8
2008		1,239		1,446		207	85.7	9,708	2.1
2009		1,266		1,452		186	87.2	9,835	1.9
2010		1,251		1,485		234	84.2	9,420	2.5
2011		1,247		1,504		257	82.9	9,061	2.8
LONG TERM DI	SABII	LITY PROG	RAM						
2006	\$	194	\$	575	\$	381	33.8 %	\$ 8,312	4.6 %
2007		232		604		372	38.4	9,162	4.1
2008		275		553		278	49.7	9,708	2.9
2009		311		476		165	65.3	9,835	1.7
2010		319		477		158	66.9	9,420	1.7
2011		308		456		148	67.5	9,061	1.6

<sup>&</sup>lt;sup>1</sup> Values shown for valuation dates on or after June 30,2010 include System liabilities and assets for members who retired or will retire on or after July 1, 1981.

See Notes to Required Supplementary Information.

## Schedule of Contributions from the Employer and Other Contributing Entities

For Year Ended June 30, 2012 (Dollars in Thousands)

	RETIREMEI	NT BENEFIT	LONG TERM DISABILITY BENEFIT				
	Annual Required ontribution	Percentage Contributed	R	Annual equired ntribution	Percentage Contributed		
2007	\$ 663,544	100 %	\$	44,518	100 %		
2008	759,482	100		47,171	100		
2009	754,044	100		47,213	100		
2010 <sup>1</sup>	749,636	100		35,939	100		
2011 <sup>2</sup>	782,347	100		21,689	100		
2012 <sup>3</sup>	850,456	100		20,998	100		

<sup>&</sup>lt;sup>1</sup> The 2010 required contributions from the employer for the retirement fund reflect total employer contributions of \$763,099,507 less \$13,463,483 of unfunded employer liabilities.

<sup>&</sup>lt;sup>3</sup> The 2012 required contributions from the employer for the retirement fund reflect total employer contributions of \$852,167,123 less \$1,711,105 of unfunded employer liabilities.

	HEALTH INSURANCE PREMIUM BENEFIT								
		Annual Required Intribution	Percentage Contributed	Coi	Other ntributions <sup>4</sup>				
2007	\$	103,473	100 %	\$	-				
2008		99,027	100		-				
2009		90,490	100		-				
2010		59,393	100		-				
2011		51,048	100		-				
2012		54,463	100		35,473				

<sup>&</sup>lt;sup>4</sup> Other contributions represent Federal government reimbursements from the Early Retiree Reinsurance Program, and rate adjustment reimbursements from the insurance carrier.

See Notes to Required Supplementary Information.

<sup>&</sup>lt;sup>2</sup> The 2011 required contributions from the employer for the retirement fund reflect total employer contributions of \$786,661,694 less \$4,314,379 of unfunded employer liabilities.

# NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

1. Actuarial Methods and Assumptions for Valuations Performed (for most recent actuarial valuation)

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated.

The Projected Unit Credit (PUC) method is the actuarial cost method used in the valuations for the period ended June 30, 2011. The unfunded actuarial accrued liability is amortized over a 30 year rolling period for the Retirement Fund and the Health Insurance Premium Benefit. The Long Term Disability (LTD) Program's unfunded actuarial accrued liability is amortized over a rolling 15 year period to reflect the shorter duration of LTD benefits. The amortization method is the Level Dollar Method. The actuarial value of assets is the market value adjusted to phase in the recognition of investment gains and losses over a period of time. For 2002 and later years, the period is ten years. The investment return rate assumption is 8 percent per annum, compounded annually. The inflation rate assumption is 3.25 percent per annum. Members' salaries are assumed to increase at a rate of 4 percent to 9 percent per annum, depending on the length of service. The permanent benefit increase (PBI) reserve was zero as of June 30, 2011, as a result of the payment of the 2005 PBI.

## **Significant Factors Affecting Identification of Trends**

#### 2000

The age restriction on eligibility for the PBI was removed.

#### 2001

## Return to Work

Permits retired members of the ASRS to return to work

and still be eligible to receive retirement benefits if they have been terminated from employment for a period of 12 months. The members who take this option will not be eligible for LTD benefits nor will they contribute to the ASRS or accrue additional benefits during the period of re-employment. This act was repealed June 30, 2003.

This is similar to the bill passed in 2000 allowing retired teachers to return to work, and it does not affect the requirements of that program.

## **Transferring Credits**

Permits an inactive member, who has not retired, to transfer credited service from one state plan to their current or former retirement plan, if the inactive member is not eligible for membership in the ASRS, and has not withdrawn contributions from the ASRS.

#### **Health Insurance Premium Benefit**

Increases the health insurance premium benefit for members of the eligible state retirement systems by the following amounts:

- Medicare eligible member from \$65 to \$100
- Non-Medicare eligible member from \$95 to \$150
- Non-Medicare family coverage from \$175 to \$260
- Medicare eligible family coverage from \$115 to
- Combination Medicare and non-Medicare eligible from \$145 to \$215

#### **Rural Health Insurance Premium Benefit**

In addition to the premium benefit paid to ASRS retired and disabled members, provides for retired and disabled members who live in areas of the state not served by a managed care program (HMO) and who have 10 years of credited service in the following amounts:

- Medicare eligible member \$170 per month
- Non-Medicare eligible member \$300 per month
- Non-Medicare family coverage \$600 per month
- Medicare eligible family coverage \$350 per month
- Combination Medicare and non-Medicare eligible \$470 per month

Also provides that a retired or disabled member may elect to purchase individual coverage and receive a payment of the increased subsidy through the member's employer if the employer assumes the administrative function associated with the payment including verification that the payment is used for health insurance.

#### **Partial Lump Sum Option**

Beginning July 1, 2002, a member may elect a Partial Lump Sum (PLS) payment at retirement equal to not more than 36 months of the member's calculated retirement benefit. The life annuity amount then would be adjusted actuarially to a reduced amount to offset the lump sum payment.

## **Graded Multiplier**

Provides a variable multiplier in the retirement benefit formula, increasing with years of service according to the following:

0.00 to 19.99 Years of Service	2.10%
20.00 to 24.99 Years of Service	2.15%
25.00 to 29.99 Years of Service	2.20%
30.00 or More Years of Service	2.30%

## **Supplemental Defined Contribution (DC) Retirement Plan**

Permits the four state retirement plans to establish a 401(a) defined contribution program as a supplement to the state defined benefit programs. Repeals the alternative DC programs for term-limited state elected officials and state employees exempted from state personnel rules.

Employees may make contributions to IRS limits with a match by the employer. Each employer member of the ASRS would be permitted to choose its own match rate.

## Permanent Benefit Increase (PBI) Enhancement

Provides that interest at a rate of 8 percent be paid on the funds held in reserve for the PBI. The interest accrued to the reserve is used to fund an enhanced PBI based on the number of years a member has been retired. A member who has at least 10 years of service would be eligible for an incremental increase for each five years of retirement.

## **PSPRS Membership; Park Rangers**

Transfers state and county park rangers from the ASRS to the PSPRS.

## **Community Colleges; Optional Retirement;** Contributions

Permits a community college that has an optional retirement program to increase employer and employee contributions to seven percent.

It provides a window for ASRS members to transfer to the optional programs from October 1, 2001 through December 31, 2001. The ASRS shall transfer their contributions plus interest to the optional program.

## **Purchase of Military Service**

Allows for ASRS members to purchase military service time for which they may already be receiving benefits.

## Pop-Up and Life Certain Option

Allows for retirees who choose the 5, 10, or 15 period certain options to rescind the election and thereafter, receive a straight life annuity, including post-retirement increases. The member may again elect a period certain and life annuity subject to the same provision previously elected by the member.

# NOTES TO REQUIRED SUPPLEMENTARY INFORMATION (CONTINUED)

## 2002

No material changes.

## 2003

## **Change to Phase-in Period**

Prior to the 2002 valuation, actuarial assets were equal to market, less a five-year phase-in of the excess of expected investment return over actual investment return. For 2002 and future years, the Board changed the fiveyear phase-in period to a ten-year period. So, the 2002 valuation recognizes only 10 percent of the 2002 investment loss. The years prior to 2002 remain on their original five-year schedules.

## **Extension of the Rural Health Insurance Premium Benefit**

The Legislature passed legislation that extends the Rural Health Insurance Subsidy for a period of two additional years.

#### 2004

## **Service Purchase Program**

The Legislature revised the method of calculating the cost of service purchases so that future purchases would be made at true actuarial present value. ASRS began to charge interest at 8 percent per annum for service purchases under payroll deduction agreements.

#### **Early Retirement Incentive Programs**

The Legislature provided that employers that participate in ASRS and offer early retirement incentives to their employees must notify ASRS of the incentives. ASRS will determine the liability associated with the cost of the incentives and the employers will pay the cost.

## **Long Term Disability Program**

The Legislature revised and clarified LTD provisions so that disabled members will be required, when appropriate, to participate in rehabilitation programs and to pursue obtaining Social Security disability benefits. In addition, the legislation limited the receipt of disability benefits on the basis of a member's "own occupation" to 24 months, rather than to 24 consecutive months.

## 2005

#### **Refund of Contributions**

The Board reduced the rate of interest accruals on forfeited balances from 8 percent to 4 percent effective July 1, 2005.

## The Legislature:

- Changed contribution rate calculations from biennial to annual for all fiscal years beginning after FYE 2007. It also modified biennial rate requirements to allow the rate to be stepped in over a two year period for FYE 2006 and 2007.
- Pegged the contribution rates for fiscal year 2006 and fiscal year 2007 at 6.90 percent and 8.60 percent respectively. After fiscal year 2007, contribution rates are to be determined annually.
- Eliminated the Rural Health Insurance Premium Benefit for retirees in the ASRS health insurance program who are not eligible for Medicare.

## **Temporary Rural Health Insurance Premium Benefit**

The Legislature extended the temporary Rural Health Insurance Subsidy for a two year period, from July 1, 2005, to June 30, 2007. The benefit is provided to Medicareeligible retirees and disabled members who live in Arizona counties with no Health Maintenance Organization (HMO) service area and who have at least 10 years of credited service.

## 2006

The Legislature limited the ability of ASRS retirees to rescind their elections after retirement. Specifically, members who have chosen a form with a death benefit can "pop up" once to the single life form, but are then not allowed to "pop down" to a death benefit form.

#### 2007

## **Long Term Disability Program**

The Legislature changed the Long Term Disability Program Social Security disability offsets and preexisting condition requirements. The Social Security disability offsets were changed from 64 to 85 percent and the Social Security retirement benefits were changed from 83 to 85 percent. The pre-existing condition requirement was changed from three months to six months.

## **Extension of the Rural Health Insurance Premium Benefit**

The Legislature extended the temporary Rural Health Insurance Premium Benefit for two years.

## **Membership**

The Legislature exempted post-doctoral scholars from ASRS membership.

#### **Service Credit**

The Legislature expanded eligibility for Active Military Service Credit.

## 2008

#### **Service Purchase Program**

The Legislature modified one of the salary calculations

used for service purchases and clarified the salary calculations used for leave of absence purchases.

#### **Membership**

The Legislature clarified that a member who purchases previously forfeited service credit is subject to the benefit structure and duties in place when the person again becomes a member.

## **Overpayment Recovery**

The Legislature required the ASRS to recover overpaid money by reducing a benefit owed to any member, beneficiary, or alternate payee.

## **Unclaimed Property**

The Legislature exempted the ASRS from statutory unclaimed property procedures and instituted notice and people search requirements.

#### Transfers Out

The Legislature modified procedures related to transfers out of the system, specifically with respect to existing Payroll Deduction Agreements for service purchases.

#### Divestment

The Legislature enacted bills providing for mandatory engagement with and potential divestment from companies that have either invested, since August 5, 1996, \$20 million or more in any year in Iran's petroleum energy sector or meet specific Sudan-related business operations criteria. The Legislature also required the ASRS to create a policy regarding investments in countries designated as "State Sponsors of Terrorism" by the U.S. State Department.

## NOTES TO REQUIRED SUPPLEMENTARY INFORMATION (CONTINUED)

## 2009

## **Defined Benefit Plan Design**

The Legislature eliminated the 80 percent cap on monthly benefits. The cap applied to members hired after August 9, 2001 and is now eliminated for all ASRS members. The legislation also clarified that nonretired survivor benefits are triggered by a member's death regardless of whether the member was employed at the time of death.

#### Service Purchase

The Legislature, effective July 1, 2010, required members to have five years of service credit in ASRS before initiating a service purchase. The legislation also allowed a member to purchase time worked for a government of a U.S. commonwealth, insular area or overseas possession. The legislation also repealed an earlier law that provided for a sunset of the revised military call-up disability service purchase provisions, and instead extended the provisions indefinitely.

## Return to Work

The Legislature allowed retired members who Return To Work (RTW) with a suspension of benefits to choose a different annuity option when they again retire if the member resumed work for at least 60 consecutive months. The legislation also allowed retired members to immediately return to work without suspension if the member returned to a different position that does not require participation in the ASRS and the member participates in another state pension program.

## **Early Termination Incentives**

The Legislature limited exceptions to the Employer Termination Incentive Program (ERTIP) definition by eliminating reclassifications and merit or cost of living increases (leaving promotion as the only exception.) The legislation removed the requirement that in order to qualify as an ERTIP, an agreement to terminate must be in writing and instead broadens the meaning to include anything of value provided by an employer that is conditioned on the member's termination. In addition, enhanced payments of vacation, sick or compensatory leave will count as ERTIP incentive payments.

## **Ineligible Persons**

The Legislature required an employer that employs and makes contributions for a person who works for a thirdparty organization (and does not meet ASRS membership) – if the ASRS or a court determines that ASRS must pay a benefit to the person – to pay any unfunded liability resulting to ASRS after ASRS subtracts the person's account balance from the present value of the benefit.

## **Dual Employment**

The Legislature eliminated a member's ability to contribute via a second employer (ER), beginning January 1, 2010, unless the member meets the 20/20 membership criteria with respect to the second ER. The Legislature established an exception if the employee had been employed by the second ER between January 1, 2005 and December 31, 2009, continues or resumes employment before January 1, 2012, and does not leave employment for more than 30 consecutive days during their service year.

## **Long Term Disability Program**

The Legislature cross-referenced the LTD Program definitions with the ASRS Defined Benefit Plan statutes to ensure conformity between the programs and also clarified the calculation of the LTD contribution rate.

#### **Rural Health Insurance Premium Benefit**

The Legislature did not extend the temporary Rural Health Insurance Premium Benefit, allowing the program to expire June 30, 2009.

#### 2010

#### **Benefit Formula**

The Legislature changed the Normal Retirement Date definition from 80 to 85 points (age plus years of service) for a member whose membership commences on or after July 1, 2011. Early retirement decrements were also modified to conform to the 85 point normal retirement for a member whose membership commences on or after July 1, 2011.

The Average Monthly Compensation definition used in a retiring member's retirement benefit calculation was modified from the highest consecutive 36 months in the last 120 months to the average of the highest consecutive 60 months in the last 120 months for members whose membership commences on or after July 1, 2011.

## Withdrawal of Account

Employer contribution refunds are eliminated for a member whose membership begins on or after July 1, 2011 when the member terminates employment and chooses to withdraw their account balance. There is an exception for any member who was terminated due to an employer reduction in force or a position elimination, in which case the current refund vesting schedule will apply.

## **Long Term Disability Program Appeals**

Effective July 29, 2010, a change in the appeals process was made so that a person appealing an ASRS decision under the LTD Program (usually a decision of an Administrative Law Judge) is permitted to request that the ASRS Board hear the appeal in executive session, rather than in a Public Hearing. The request must be made at least 48 hours in advance. Further, minutes of and discussions held at an executive session are confidential except from the appellant for use in the appellant's further appeal to the Superior Court.

## **Health Insurance Supplement (Premium Benefits)**

Effective July 29, 2010, the Legislature removed the ability of a retiree to secure individual health insurance coverage and receive the health insurance supplement. After July 29, 2010 in order to receive the health insurance supplement, the retiree must be enrolled in either the ASRS' Retiree Health Insurance program or an Employer's Group Health Insurance.

## Miscellaneous

Effective July 29, 2010, the Legislature made miscellaneous changes to the plan to conform to federal law.

## **2011**(most recent actuarial valuation)

## **Plan Opt Out**

Until July 1, 2015, allows a person, who becomes employed after the person has reached age 65, is not an active, inactive, retired or disabled member; and does not have any credited or prior service in ASRS to elect not to participate in ASRS. The election must be made is writing and filed with ASRS within 30 days of employment. This election is irrevocable for the remainder of the person's employment, and the time cannot be purchased at a later date.

## **NOTES TO REQUIRED SUPPLEMENTARY INFORMATION (CONTINUED)**

#### **Distributions**

ASRS will no longer pay employers portion of Contributions Not withheld (CNW) as a refund or a nonretired survivor benefit if the member has not paid their portion of the CNW.

The Level Income alternative retirement option was eliminated for new retires after July 1, 2013.

#### **Service Purchase**

Reduced requirement to purchase Leave of Absence, Other Public Service or Military service from 10 years of service back to 5 years of service.

## **Health Benefit Supplement**

ASRS will no longer provide the premium benefit for retirees or disabled members who are covered under ASRS Employer's "active employee' insurance plan, either as the insured or as a dependent, if the premium paid by the retiree or disabled member is subsidized by the ASRS employer.

#### **Spousal Consent**

A member who is married at the time of retirement must elect the current spouse as primary contingent annuitant and must elect a monthly benefit in the form of a joint and survivor annuity of at least 50% of the member's monthly benefit. To choose a different annuity option or to change the primary contingent annuitant, the member must get the written consent of the current spouse, excepting in cases of divorce or death.

#### LTD

Caps disability earnings from the LTD program benefit and other statutory sources at 100% of the member's pre-disability salary (the salary ASRS used in determining benefits) for new disabilities on or after August 2, 2012. ASRS offsets the member's LTD benefit if the cap is exceeded.

# **ADDITIONAL SUPPLEMENTARY INFORMATION**

# **Combining Schedule of Retirement Net Assets**

For the Year Ended June 30, 2012 (Dollars in Thousands)

	Retirement Plan	Retirement System	Combined 2012
ASSETS			
Cash	\$ 24,999	\$ 1	\$ 25,000
Prepaid benefits	181,482	3,323	184,805
Total cash and prepaids	206,481	3,324	209,805
rotar cash and proparas	200,102	3,321	203,000
RECEIVABLES			
Accrued interest & dividends	63,778	907	64,685
Securities sold	415,117	5,904	421,021
Forward contracts	266,737	3,794	270,531
Contributions	34,305	-, -	34,305
Due from other funds	-	-	-
Other	5,962	40	6,002
Total receivables	785,899	10,645	796,544
INVESTMENTS AT FAIR VALUE  Temporary investments Securities lending collateral Equity securities Fixed income securities Real Estate Private Equity Opportunistic Investments  Total investments	1,395,563 47,285 16,224,046 4,989,216 1,345,733 1,275,974 616,202 <b>25,894,019</b>	19,716 673 208,549 95,424 20,245 - 9,370 <b>353,977</b>	1,415,279 47,958 16,432,595 5,084,640 1,365,978 1,275,974 625,572 <b>26,247,996</b>
TOTAL ASSETS	26,886,399	367,946	27,254,345
LIABILITIES			
Payable for securities purchased	501,153	7,128	508,281
Payable for securities lending collateral	47,285	673	47,958
Forward contracts payable	235,625	3,351	238,976
Due to other funds	23,244	1,939	25,183
Other	31,378	475	31,853
TOTAL LIABILITIES	838,685	13,566	852,251
NET ASSETS HELD IN TRUST FOR PENSION BENEFITS	\$ 26,047,714	\$ 354,380	\$ 26,402,094

In accordance with GASB 25, for financial reporting purposes the Retirement Plan and the Retirement System are presented in one column, Retirement Fund, in the ASRS Basic Financial Statements because they are administered within a single pension plan. The Combining Schedule of Retirement Net Assets and Changes in Retirement Net Assets are presented here to provide members with more detailed information about the two plan components.

# **Combining Schedule of Changes in Retirement Net Assets**

For the Year Ended June 30, 2012 (Dollars in Thousands)

Additions	Re	etirement Plan		tirement System	С	ombined 2012
CONTRIBUTIONS						
CONTRIBUTIONS  Member contributions	\$	905,909	\$	59	\$	905,968
Employer contributions	4	852,108	4	59	4	852,167
Federal government reimbursement		-		-		-
Retrospective rate adjustment reimbursement		-		-		-
Transfers from other plans Purchased Service		2,236 51,423		_		2,236 51,423
Total Contributions		1,811,676		118		1,811,794
THIS ONE FROM THIS STATE ASTROPTICS						
INCOME FROM INVESTMENT ACTIVITIES  Net appreciation (depreciation) in fair value (public)		(400,158)		(2,700)		(402,858)
Interest		189,749		2,368		192,117
Dividends		279,176		3,501		282,677
Real Estate		161,122		1,842		162,964
Private Equity		184,452		-		184,452
Opportunistic Investments Other		18,844 12,020		104 157		18,948 12,177
Total income from investment activities		445,205		5,272		450,477
LESS INVESTMENT ACTIVITY EXPENSES		(54.027)		(012)		(54.040)
Management fees and monitoring services (public) Real estate expense		(54,037) (28,920)		(812) (353)		(54,849) (29,273)
Private equity expense		(43,966)		(333)		(43,966)
Opportunistic investments expense		(3,735)		(30)		(3,765)
Total investment activity expenses		(130,658)		(1,195)		(131,853)
Net income from investment activities		314,547		4,077		318,624
FROM SECURITIES LENDING ACTIVITIES (NOTE 4)						
Security lending income		2,679		32		2,711
		•				
Security lending expenses						•
Interest (expense) / rebate		2,135		26		2,161
Interest (expense) / rebate Management fees		(619)		(7)		2,161 (626)
Interest (expense) / rebate Management fees Total securities lending activities expense		(619) 1,516		(7) 19		2,161 (626) 1,535
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities		(619) 1,516 <b>4,195</b>		(7) 19 <b>51</b>		2,161 (626) 1,535 <b>4,246</b>
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities Total net investment income		(619) 1,516 4,195 318,742		(7) 19 <b>51</b> <b>4,128</b>		2,161 (626) 1,535 4,246 322,870
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities		(619) 1,516 <b>4,195</b>		(7) 19 <b>51</b>		2,161 (626) 1,535 <b>4,246</b>
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities Total net investment income		(619) 1,516 4,195 318,742		(7) 19 <b>51</b> <b>4,128</b>		2,161 (626) 1,535 4,246 322,870
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities Total net investment income TOTAL ADDITIONS		(619) 1,516 4,195 318,742 2,130,418		(7) 19 <b>51</b> <b>4,128</b>		2,161 (626) 1,535 4,246 322,870
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities Total net investment income TOTAL ADDITIONS  Deductions  Retirement and disability benefits		(619) 1,516 4,195 318,742 2,130,418		(7) 19 51 4,128 4,246		2,161 (626) 1,535 4,246 322,870 2,134,664
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities Total net investment income TOTAL ADDITIONS  Deductions  Retirement and disability benefits Survivor benefits		(619) 1,516 4,195 318,742 2,130,418 2,249,900 29,576		(7) 19 51 4,128 4,246 48,047 155		2,161 (626) 1,535 4,246 322,870 2,134,664
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities Total net investment income TOTAL ADDITIONS  Deductions  Retirement and disability benefits Survivor benefits Refunds to withdrawing members, including interest		(619) 1,516 4,195 318,742 2,130,418 2,249,900 29,576 207,078		(7) 19 51 4,128 4,246 48,047 155 211		2,161 (626) 1,535 4,246 322,870 2,134,664 2,297,947 29,731 207,289
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities Total net investment income TOTAL ADDITIONS   Deductions  Retirement and disability benefits Survivor benefits Refunds to withdrawing members, including interest Administrative expenses		(619) 1,516 4,195 318,742 2,130,418 2,249,900 29,576 207,078 30,633		(7) 19 51 4,128 4,246 48,047 155		2,161 (626) 1,535 4,246 322,870 2,134,664 2,297,947 29,731 207,289 31,052
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities Total net investment income TOTAL ADDITIONS  Deductions  Retirement and disability benefits Survivor benefits Refunds to withdrawing members, including interest		(619) 1,516 4,195 318,742 2,130,418 2,249,900 29,576 207,078		(7) 19 51 4,128 4,246 48,047 155 211		2,161 (626) 1,535 4,246 322,870 2,134,664 2,297,947 29,731 207,289
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities Total net investment income TOTAL ADDITIONS  Peductions  Retirement and disability benefits Survivor benefits Refunds to withdrawing members, including interest Administrative expenses Transfers to other plans Other TOTAL DEDUCTIONS		(619) 1,516 4,195 318,742 2,130,418 2,249,900 29,576 207,078 30,633 5,024 750 2,522,961		(7) 19 51 4,128 4,246 48,047 155 211		2,161 (626) 1,535 4,246 322,870 2,134,664 2,297,947 29,731 207,289 31,052 5,024 750 2,571,793
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities Total net investment income TOTAL ADDITIONS   Retirement and disability benefits Survivor benefits Refunds to withdrawing members, including interest Administrative expenses Transfers to other plans Other	\$	(619) 1,516 4,195 318,742 2,130,418 2,249,900 29,576 207,078 30,633 5,024 750	\$	(7) 19 51 4,128 4,246 48,047 155 211 419	\$	2,161 (626) 1,535 <b>4,246</b> <b>322,870</b> <b>2,134,664</b> 2,297,947 29,731 207,289 31,052 5,024 750
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities Total net investment income TOTAL ADDITIONS  Peductions  Retirement and disability benefits Survivor benefits Refunds to withdrawing members, including interest Administrative expenses Transfers to other plans Other TOTAL DEDUCTIONS	\$	(619) 1,516 4,195 318,742 2,130,418 2,249,900 29,576 207,078 30,633 5,024 750 2,522,961	\$	(7) 19 51 4,128 4,246 48,047 155 211 419	\$	2,161 (626) 1,535 4,246 322,870 2,134,664 2,297,947 29,731 207,289 31,052 5,024 750 2,571,793
Interest (expense) / rebate Management fees Total securities lending activities expense Net income from securities lending activities Total net investment income TOTAL ADDITIONS   Retirement and disability benefits Survivor benefits Refunds to withdrawing members, including interest Administrative expenses Transfers to other plans Other  TOTAL DEDUCTIONS NET INCREASE (DECREASE)	\$	(619) 1,516 4,195 318,742 2,130,418 2,249,900 29,576 207,078 30,633 5,024 750 2,522,961	\$	(7) 19 51 4,128 4,246 48,047 155 211 419	\$	2,161 (626) 1,535 4,246 322,870 2,134,664 2,297,947 29,731 207,289 31,052 5,024 750 2,571,793

In accordance with GASB 25, for financial reporting purposes the Retirement Plan and The Retirement System are presented in one column, Retirement Fund, in the ASRS basic financial statements because they are administered within a single pension plan. The Combining Schedule of Retirement Net Assets and Changes in Retirement Net Assets are presented here to provide members with more detailed information about the two plan components.

# **Schedule of Additions by Source**

(Dollars in Thousands)

Year	mployee ntributions Made	Employer ntributions Made	Ir	Net nvestment Income (Loss)	_	urchased ervice and Other	Total
2003	\$ 177,157	\$ 177,157	\$	368,631	\$	93,552	\$ 816,497
2004	413,462	413,458		3,228,785		113,944	4,169,649
2005	442,643	442,643		1,803,392		141,932	2,830,610
2006	612,121	612,121		2,230,939		125,751	3,580,932
2007	811,480	811,535		4,310,518		107,548	6,041,081
2008	904,984	905,680		(2,072,441)		95,226	(166,551)
2009	891,753	891,747		(4,673,490)		72,436	(2,817,554)
2010	844,847	858,431		3,028,216		73,973	4,805,467
2011	854,976	859,399		5,704,452		70,812	7,489,639
2012	926,966	927,628		338,728		89,132	2,282,454

# **Schedule of Deductions by Type**

Year	В	enefits	Re	efunds	Trans	nistration fers and ther	Total
2003	\$	1,222,564	\$	35,976	\$	37,877	\$ 1,296,417
2004		1,396,481		36,212		35,745	1,468,438
2005		1,576,734		44,164		33,426	1,654,324
2006		1,703,215		60,313		39,395	1,802,923
2007		1,824,865		77,910		47,703	1,950,478
2008		1,944,283		104,387		210,432	2,259,102
2009		2,072,813		120,689		38,834	2,232,336
2010		2,214,722		154,144		44,121	2,412,987
2011		2,348,551		180,719		38,496	2,567,766
2012		2,486,783		207,289		40,953	2,735,025

#### **Schedule of Professional Consultant Fees**

For Year Ended June 30, 2012 (Dollars in Thousands)

Professional/Consultant	Nature Of Service	Exp	enses
Comsys Information Technology Services	IT And Other Consulting Services	\$	2,746
Sedgwick Claims Management Services	LTD Administrative Services		2,722
State Street Bank And Trust Company	Pension Payment Services And Custodial Bank Services		2,493
Robert Charles Lesser and Co., LLC.	Investment Consulting Services		975
Buck Consultants, LLC	Actuarial Services		852
Meketa Investment Group	Investment Consulting Services		643
New England Pension Consultants	Investment Consulting Services		588
DLJ MB Advisors, Inc.	Investment Back Office Services		540
The Townsend Group	Investment Consulting Services		239
Arizona State Attorney General Office	Legal Services		195
Foley And Lardner, LLP	Investment Legal Services		194
Lumea Staffing, Inc.	Temporary Staffing Services		139
Heinfeld Meech And Co PC	Audit Services		71
Cortex Applied Research Inc.	Investment Consulting Services		68
Cox Castle And Nicholson	Investment Legal Services		59
Institutional Shareholder	Investment Consulting Services		52
Century Link	Security Assessment Services		49
CEM Benchmarking, Inc.	Plan Administration Consulting		35
Charles W Whetstine	Legal Services		29
Wilmer Cutler Pickering Hale and Dorr, LLP	Investment Legal Services		22
Lexis Nexis	Research Services		18
Other Consulting Fees (Less Than Fifteen Thousand Dollars)	_		93
TOTAL		\$ 12	2,822

# **Schedule of Administrative Expenses**

For Year Ended June 30, 2012 (Dollars in Thousands)

	Retirement and Health Benefit Supplement		Long-Term Disability	2012
PERSONNEL SERVICES				
Salaries	\$	11,483	\$ -	\$ 11,483
Retirement Contributions		1,163	-	1,163
Other Employee Related Expenses		3,528	-	3,528
Total Personnel Services		16,174	-	16,174
PROFESSIONAL SERVICES				
Actuary & Benefit Consulting		855	-	855
Audit, Consulting & Legal Fees		554	-	554
Programming Costs		2,686	-	2,686
Other Outside Services		5,987	2,740	8,727
Total Professional Services		10,082	2,740	12,822
COMMUNICATIONS				
Postage and Delivery		470	-	470
External Printing		98	-	98
Telephone		308	-	308
Advertising		9	-	9
Total Communications		885	-	885
MISCELLANEOUS				
Office Rent		2,235	-	2,235
Furniture & Equipment		415	-	415
Software & Support		1,268	-	1,268
Repair & Maintenance		121	-	121
Travel		102	-	102
Operating Supplies		63	-	63
Insurance		200	-	200
Dues & Subscriptions		792	-	792
Education & Training		79	-	79
Miscellaneous		6	-	6
Total Miscellaneous		5,281	-	5,281
TOTAL	\$	32,422	\$ 2,740	\$ 35,162

Equity and Fixed Income For Year Ended June 30, 2012 (Dollars in Thousands)

	Management		
	Fees	Other Fees	Total
Aberdeen Asset Management	\$ 2,094	\$ 371	\$ 2,465
ASRS Internal	-	34	34
Blackrock Custom US Debt Fund	494	2	496
Blackrock Dow Jones/UBS	19	-	19
Blackrock EAFE Country Fund U/A	1,162	_	1,162
Blackrock Index Fund A	33	3	36
Blackrock Intermediate Govt/Credit Bond Index Fund	5	-	5
Blackrock MSCI EAFE Small Cap	101	14	115
Blackrock MSCI Emerging Markets Free B	452	=	452
Blackrock US Real Estate Securities Fund B	22	=	22
Blackrock US High Yield Bond Index Fund B	11	-	11
Blackrock US Debt Index Fund B	36	-	36
Blackrock Russell 1000 Index Fund B	51	-	51
Blackrock Russell 2000 Index Fund B	12	_	12
Brandes Investment Partners International Equity	1,509	1,065	2,574
Bridgewater Associates Global Tactical Asset Allocation	12,502	-	12,502
Cargill, Inc.	376	_	376
Champlain Investment Partners	1,110	_	1,110
Columbia Management Investment Advisors, LLC	1,093	_	1,093
Credit Suisse Alternative Capital, Inc.	1,609	_	1,609
CRM Funds Mid Cap Value	710	1	711
Dimensional Fund Advisors Equity Fund	877	_	877
Dimensional Fund Advisors International Small Cap	936	63	999
Eaton Vance Investment Managers	2,799	-	2,799
European Investors, Inc.	7	11	18
Forum Securities, Ltd.	7	(7)	-
Franklin Templeton Investments	1,312	236	1,548
Gresham Investment Management	1,380	152	1,532
Guggenheim Partners Management	1,781	1	1,782
Hansberger Global Investors, LC	1,155	252	1,407
Intech Large Capital	2,430	-	2,430
Jacobs Levy Equity Management		713	2,430
LSV Asset Management - Emerging Markets Equity Fund LP	1,390 1,476	713	1,476
LSV Asset Management - Linerging Markets Equity Fund Er  LSV Asset Management - US Large Cap Value Account		- -	
	1,641		1,641
Pacific Investment Management Company	1,669 88	(59)	1,610 97
QS Investors - EAFE		9	
QS Investors - FI	155		155
QS Investors - IGAP	37	123	160
QS Investors - S&P 500	265	1	266
Sankaty Advisors, LLC	669	- (4)	669
Shenkman Capital Management	599	(1)	598
Timessquare Capital Management	4,006	(3)	4,003
Walter Scott & Partners	1,151	106	1,257
Wellington Management Co Mid Cap Opportunities	2,137	=	2,137
William Blair & Company	1,599	-	1,599
Windham Capital Management	1,415	<u>-</u>	1,415
Total	\$ 54,382	\$ 3,087	\$ 57,469

Private Equity

For Year Ended June 30, 2012

	Management		
	Fees	Other Fees	Total
Accel-KKR Capital Partners III, LP	\$ 720	\$ 47	\$ 767
Apollo Investment Fund VII, LP	456	128	584
Apollo Natural Resources Partners, LP	204	328	532
Arlington Capital Partners III, LP	779	151	930
Atlas Venture Fund VIII, LP	338	167	505
Baird Capital Partners V Limited Partnership	2,266	568	2,834
Blackrock Private Opportunities Fund, LP	68	23	91
Blackstone Capital Partners VI, LP	548	350	898
Bridgepoint Europe IV 'D', LP	449	68	517
Brookfield Special Situations Fund III (NR A), I	324	186	510
Catalyst Fund Limited Partnership III	232	773	1,005
Centerbridge Capital Partners, LP	1,123	390	1,513
CMEA Ventures VII, LP	180	16	196
Crown European Buyout Opportunities II, Plc	203	441	644
CVC European Equity Partners V (C), LP Edgewater Growth Capital Partners III, LP	2,126	43	2,169
Energy Capital Partners II-A, LP	742	892	1,634
First Reserve Fund XII, LP	439 886	949	1,388
IDG Ventures SF, LP		143	1,029
JLL Partners Fund VI, LP	220 645	16	236
Khosla Ventures IV, LP	286	(1,065) 2	(420) 288
Kinderhook Capital Fund III, LP	286	1,077	1,363
Levine Leichtman Capital Partners Deep Value	435	1,0//	435
Levine Leichtman Capital Partners IV, LP	837	36	873
Linconshire Equity Fund IV-A, LP	428	7	435
Linden Capital Partners II, LP	195	272	467
Littlejohn Fund IV-A, LP	292	10	302
LLR Equity Partners III, LP	600	-	600
Maranon Mezzanine Fund, LP	296	5	301
Montreux Equity Partners IV, LP	181	514	695
Nautic Partners VI, LP	374	15	389
New Atlantic Ventures Fund III, LP	214	9	223
New Mountain Partners III, LP	458	181	639
Oakhill Capital Partners III, LP	932	34	966
Oaktree European Principal Fund III, LP	318	(68)	250
Onex Partners III, LP	1,218	161	1,379
Partners Group Secondary 2008, LP	638	574	1,212
Paul Capital Partners IX, LP	458	-	458
Peninsula Technology Ventures, LP	197	23	220
Pine Brook Capital Partners, LP	755	1,742	2,497
Platinum Equity Capital Partners II, LP	-	63	63
Quantum Energy Partners V, LP	949	151	1,100
Saybrook Corporate Opportunity Fund, LP	400	-	400
Seidler Equity Partners IV, LP	800	81	881
Silver Lake Partners III, LP	365	825	1,190
TCW/Crescent Mezzanine Partners V, LP	836	-	836
Tenex Capital Partners, LP	926	891	1,817
The Resolute Fund II, LP	334	119	453
The Veritas Capital Fund IV, LP	187	62	249
Thomas H Lee Equity Fund VI, LP	384	50	434
Warburg Pincus Private Equity X, LP	594	214	808
Waud Capital Partners QP III, LP	168	663	831
Wayzata Opportunities Fund II, LP	376	664	1,040
White Deer Energy, LP	940	2,683	3,623
Yucaipa American Alliance Fund II, LP	506	158	664
Total	\$ 30,111	\$ 15,832	\$ 45,943

Real Estate For Year Ended June 30, 2012 (Dollars in Thousands)

	Manageme Fees	nt Other Fees	Total
AEW Core Property Trust (U.S.), Inc.		28 \$ -	\$ 928
AEW Value Investors Fund II, LP	•	20 <del>ў</del> - 72 -	372
Alcion Real Estate Partners Tax-Exempt Parallel Fund II, LP	_	50 409	1,159
Almanac Realty Securities IV, LP		74 31	505
Almanac Realty Securities V, LP		74 31 46 4	
ASRS Internal	Τ,	- 4,048	
Blackstone Real Estate Partners VI, LP	6	39 1,571	2,210
Carlyle Realty Partners V, LP		90 -	590
CB Richard Ellis Strategic Partners US Opportunity 5, LP	_	- - -	440
CB Richard Ellis Strategic Partners US Value 5, LP	2,0		2,009
CIM Fund III, LP	•	54 -	554
CIM Urban REIT, LLC		- 42 -	842
CIM VI (Urban REIT), LLC	O.	6 -	6
Colony Investors VIII, LP	4	70 -	470
Dune Real Estate Fund II, LP	1,2		1,555
Dune Real Estate Fund, LP	•	15 48	563
Five Mile Capital II LOPO Co-Investment, LP	_	64 4	
Five Mile Capital Partners II, LP	_	50 102	
H/2 Special Opportunities II, LP		10 639	849
Harrison Street Real Estate Partners III, LP		25 -	825
Heitman Value Partners II, LP		60 -	160
Hines US Core Office Fund, LP		60 -	60
Hunt Commercial Realty Partners III, LP		44 -	544
Invesco Asian Real Estate Partners II (USD), LP		95 148	243
Lone Star Fund VI (US), LP	2,0	03 -	2,003
Lone Star Real Estate Fund (US), LP		55 -	155
M&G Real Estate Debt Fund, LP	1,1		1,510
Oaktree Real Estate Opportunities Fund V, LP		57 -	, 757
PLA Residential III, LP	7	21 -	721
PLA Retail Fund I, LP	8	76 -	876
PRISA II	5	83 -	583
RREEF Global Opportunities Fund II, LLC	4	71 128	599
Tishman Speyer Real Estate Venture VI, LP		26 112	138
Tishman Speyer Real Estate Venture VII, LP	5	66 125	691
Waterton Residential Property Venture XI, LP	7	07 -	707
Westbrook Real Estate Fund VII, LP	5	- 68	568
Westbrook Real Estate Fund VIII, LP		51 -	751
Total	\$ 22,57	0 \$ 7,991	\$ 30,561

Opportunistic For Year Ended June 30, 2012 (Dollars in Thousands)

	Ма	nagement Fees	Ot	ther Fees	Total
Avenue Europe Special Situations Fund II (US), LP	\$	1,086	\$	453	\$ 1,539
Blackrock Credit Investors II, LP		57		(1,051)	(994)
Blackrock Mortgage Investors, LP		518		386	904
Blackstone/GSO Capital Solutions Fund, LP		-		49	49
Oaktree Opportunities Fund VIII, LP		660		(1,500)	(840)
Oaktree Opportunities Fund VIIIb, LP		1,332		(653)	679
OCM STR Co-Invest 1, LP		120		68	188
TCW Capital Trust		1,751		-	1,751
TPG Specialty Lending, Inc.		656		-	656
Total	\$	6,180	\$	(2,248)	\$ 3,932

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# U.S. Economy and Capital Markets FY 2011-12

By Thomas Connelly, Investment Committee Chair, and Gary R. Dokes, Chief Investment Officer

#### 3rd Quarter 2011

The economy exhibited significant risks to the downside, as reflected in poor equity market returns and prompted the Federal Reserve to initiate "Operation Twist," during a quarter that also saw the U.S. Government's debt downgraded. Fears of a double-dip recession rose domestically, while the European debt crisis and dissipating growth in Asia caused additional uncertainty. GDP expanded by 1.6% for the quarter. The unemployment rate remained at 9.1% for the quarter. The CPI Index rose by 3.9% year-over-year. The Federal Funds rate remained unchanged during the quarter with a range of 0.00% to 0.25%.

The domestic large cap and international equity markets fell sharply during the quarter. The S&P 500 Index was down 13.9%, with returns better than mid-cap and small-cap stocks. The S&P MidCap Index was down 19.9% during the quarter and the S&P SmallCap Index fell 19.8%. Growth outperformed value across the capital spectrum. International equity markets were weaker than domestic markets. The MSCI EAFE Index declined 19.0% for the quarter. The MSCI ACWI ex U.S. Index fell by 19.9% for the quarter. Europe (ex-United Kingdom) dropped 26.0% in the developed markets while the emerging markets were brought down by Russia and China, although emerging markets still managed to outperform their developed market counterparts. The MSCI EM Index declined 22.6%.

The Barclays Aggregate Index outperformed the domestic equity markets, by advancing 3.8% during the quarter. High Yield bonds fell, while Treasuries were the top performing sector in the Barclays Aggregate Index, as investors exhibited a flight to quality. Long duration bonds outperformed intermediate term issues. Lowerquality issues underperformed higher-quality issues in

the investment credit space. Mortgages returned 2.4% while Treasuries advanced 6.3%.

REITs exhibited positive performance for the quarter; the FTSE NAREIT Index rose 2.9%. Private real estate fared better; the NCREIF Property Index was up 3.9% for the quarter. The State Street Private Equity Index was up 4.5% for the quarter.

The Dow Jones UBS commodities Index fell by 11.3% for the quarter. The Energy sector was led lower by 16.3% as oil declined 17.0%. Precious metals rose slightly by 2.3% on an increase in gold of 7.8%. Industrial metals fell 22.7% in line with copper down by 26.2%. The Agriculture sector was lower by 9.0% as corn and soybeans decreased 5.8% and 9.7% respectively.

#### 4th Quarter 2011

Improved economic news in the U.S. and policy moves in Europe provided strength for global equities, albeit in more defensive sectors, as risk appetites were still lacking. GDP expanded 2.0% for the quarter. The unemployment rate fell from 9.1% to 8.7% in the fourth quarter. The CPI index rose by 3.0% year-over-year. The Federal Funds rate remained unchanged during the quarter, with a range of 0.00% to 0.25%.

The developed domestic equity markets posted strong gains for the quarter, while international developed markets were modestly positive. The S&P 500 increased 11.8% during the fourth quarter, underperforming small cap and mid cap stocks. The S&P MidCap Index rose 13.0%, while the S&P SmallCap Index rose 17.2%. Value outperformed growth across the capital spectrum. International equity markets were also in

positive territory. The MSCI EAFE Index increased 3.3% for the quarter. The MSCI ACWI excluding U.S. Index rose by 3.7%. Stocks in the U.K. outpaced those in Europe and Japan in the developed markets, and Latin America paced the emerging markets. Emerging markets outperformed their developed market counterparts. The MSCI EM Index appreciated 4.4%.

The Barclays Aggregate Index performed worse than the developed equity markets, but rose 1.1% during the quarter. Longer-term issues outperformed shorter-term issues. High yield again exhibited strong performance with CMBS and corporates being the strongest investment grade performers. Lower-quality issues outperformed higher-quality issues in the investment credit space. Mortgages returned 0.9% during the quarter, while Treasuries increased 0.9% during the quarter.

REITs exhibited positive performance; the FTSE NAREIT Index declined 15.1% for the quarter. Private real estate fared worse; the NCREIF Property Index was up 3.3% for the quarter. The State Street Private Equity Index was down -6.0% for the quarter.

The Dow Jones UBS commodities index was marginally positive, rising by 0.4% for the quarter. The Energy sector rose by 2.1% as oil increased 24.8% but natural gas fell 18.5%. Precious metals fell 4.4% on a decrease in gold of 3.3%. Industrial Metals were slightly positive, rising 1.5% as copper increased 9.0%. The Agriculture sector was higher by 1.4% as corn and soybeans increased 9.1% and 1.7% respectively.

#### 1st Quarter 2012

The continued supply of liquidity by major central banks and positive economic news buoyed global equities. Unemployment dipped while GDP growth tapered off. GDP expanded 2.4% for the quarter. The unemployment rate fell from 8.7% to 8.2% in the first quarter. The CPI Index rose 2.7% year-over-year. The Federal Funds rate was left unchanged, with a range of 0.00% to 0.25%.

The equity markets were strong both domestically and internationally. The S&P 500 increased 12.6% during the first quarter, underperforming mid-caps, but outperforming small-caps. The S&P MidCap Index rose 13.5%, while the S&P SmallCap Index appreciated 12.0%. Growth outperformed value across the capital spectrum. International equity markets also had a strong quarter. The MSCI EAFE Index increased 10.9% for the quarter. The MSCI ACWI excluding U.S. Index rose by 11.2%. In the developed markets, Europe ex-UK led the way, while emerging markets were led by European based securities. Emerging markets were in-line with their developed counterparts. The MSCI EM Index rose 11.2% for the quarter.

The Barclays Aggregate Index lagged the equity markets, but advanced 0.3% during the quarter. Intermediate-term issues outperformed shorter-term issues. Lower-quality issues outperformed higher-quality issues in the investment credit space as high yield rallied. Mortgages returned 0.6% while Treasuries fell by 1.3%.

REITs posted positive returns in the second quarter; the FTSE NAREIT Index increased 15.3%. Private real estate fared worse; the NCREIF Property Index was up 3.0%. The State Street Private Equity Index was up 6.6% for the quarter.

The Dow Jones UBS Commodities Index was modestly positive, rising by 0.9% for the quarter. The Energy sector was down by 6.1% as oil was up 4.2% but natural gas fell 28.9%. Precious metals rose by 8.5% on an increase in gold of 6.5%. Industrial metals were positive by 5.8% as copper rose 11.3%. The Agriculture sector was higher by 3.2% as corn and soybeans increased 0.4% and 17.1% respectively.

#### 2nd Quarter 2012

The European debt crisis wore on and was a drag to global growth, hurting equity returns. GDP expanded 2.3% for the quarter. The unemployment rate remained steady at 8.2% for the quarter. The CPI Index increased 1.7% year-over-year. The Federal Funds rate was left unchanged with a range of 0.00% to 0.25%.

The rally in domestic equity fizzled in the second quarter. The S&P 500 Index fell 2.8% for the quarter. Large cap stocks outperformed both mid and small caps. The S&P 400 MidCap Index declined 4.9% and the S&P 600 SmallCap Index decreased 3.6%. Value outperformed growth across the cap spectrums. International equity markets also fell for the quarter. The MSCI EAFE Index declined 7.1% for the quarter. The MSCI ACWI excluding U.S. Index decreased by 7.6%. The UK was the strongest in the developed world while Latin America and Europe brought down the emerging markets. Emerging markets lagged their developed counterparts. The MSCI EM Index declined 8.9% for the quarter.

The Barclays Aggregate Index rose 2.1% during the second quarter and outperformed equity markets. Longer-term issues outperformed shorter-term issues. Bonds had similar performance across the quality spectrum and high-yield performed in-line with investment grade. Mortgages gained 1.3% while Treasuries rose 2.8% during the quarter.

REITs were positive in the second quarter; the FTSE NAREIT Index rose 10.5%. Private real estate fared worse; the NCREIF Property Index increased by 2.6 %. The State Street Private Equity index was up 6.6% for the quarter.

The Dow Jones UBS Commodities Index fell by 4.6% for the quarter. The Energy sector was down 9.0% as oil fell 17.5%. Precious metals fell by 6.8% as gold declined 3.9%. Industrial metals were negative by 9.0% as copper fell 8.8%. The Agriculture sector was up 2.2% as corn and soybeans increased 4.4% and 7.8% respectively.

#### **Investment Goals and Results**

1. Achieve a total fund rate of return equal to or greater than the actuarial assumed interest rate.

Rate of Return: 8.0% (over 20 years) Actual: 8.4% (over 20 years)

2. Achieve a total fund rate of return equal to or greater than the asset allocation benchmark.

Benchmark: 1.4% (1 year) and 12.6% (3 years) Actual: 1.3% (1 year) and 13.2% (3 years)

3. Achieve a total fund rate of return equal to or greater than the amount projected in the most recent asset allocation (AA) study.

AA Study: 8.9% (over 5 years) Actual: 1.8% (over 5 year)

4. Achieve asset class net rates of return equal to or greater than their respective broad asset class benchmarks.

U.S. Equities:

Benchmark: 3.7% (1-year) and 17.2% (3-years) Actual: 2.8% (1-year) and 17.5% (3-years)

**International Equities:** 

Benchmark:-13.9% (1-year) and 7.7% (3-years) Actual: -13.1% (1-year) and 7.3% (3-years)

Fixed Income:

Benchmark: 7.5% (1-year) and 7.2% (3-years) Actual: 8.1% (1-year) and 8.0% (3-years)

Global Tactical Asset Allocation (GTAA):

Benchmark: 2.1% (1-year) and 12.0% (3-years) Actual: 2.4% (1-year) and 15.8% (3-years) Inflation-Linked: \*

Benchmark: -14.3% (1-year) -13.7% (1-year) Actual:

\*inception date < 3yrs

#### Real Estate:

Benchmark: 14.7% (1-year) and 4.1% (3-years) Actual: 12.3% (1-year) and 9.8% (3-years)

#### Private Equity:

Benchmark:-0.2% (1-year) and 26.9% (3-years) Actual: 15.4% (1-year) and 16.8% (3-years)

5. Achieve portfolio-level net rates of return equal to or greater than their respective portfolio benchmarks.

#### **Public Market Portfolios:**

54% outperformed their benchmark (1-year) 64% outperformed their benchmark (3-years)

#### Private Market Portfolios:

62% outperformed their benchmark (1-year) 37% outperformed their benchmark (3-years)

Ensure sufficient monies are available to meet 6. cash flow requirements.

Achieved this goal.

#### **Asset Allocation Targets**

During fiscal year 2012, the ASRS asset allocation policy targets and ranges were as follows:

TOTAL	100%	
Commodities	3%	(0-10%)
Opportunistic	0%	(0-10%)
Private Equity	7%	(5-9%)
Real Estate	6%	(4-8%)
International Equity	18%	(8-28%)
U.S. Fixed Income	26%	(16-36%)
U.S. Equity	40%	(30-50%)

#### **Investment Policies**

An integral part of the overall investment policy is the Strategic Asset Allocation Policy, which is designed to optimize returns while minimizing risk. The ASRS maintains its investment assets in accordance with Board approved Strategic Asset Allocation Policy. Investment assets are managed in 144 externally managed and 6 internally managed portfolios, which are diversified in U.S. equities, U.S. fixed income, international equities, real estate, private equity, opportunistic investments and commodity investments.

The ASRS adheres to all statutory requirements set by Arizona State law. In addition the ASRS established investment guidelines for its internal and external investment managers and a complete set of policies, procedures, compliance requirements, and oversight of internal investment management to ensure that investment assets are prudently managed. Both internal and external compliance procedures are in place. Oversight responsibilities reside with the ASRS Board. Details of investments are located at the end of this report.

#### **INVESTMENT RESULTS**

#### Performance Accounting/ Computation Standards

The ASRS investment performance rates of return are calculated on a total return basis, using time-weighted rates of return, based upon market values. Investment amounts are reflected at Fair Market Value. Private Real Estate, Private Equity and Opportunistic Investments are valued on a quarter lag basis adjusted for cash flows.

Performance is calculated on an accrual basis provided that the accrual information is available from the custodian or record-keeper. The rates of return are generated by asset class and include cash holdings.

Below are the rates of return on the overall portfolio, as well as specific asset classes, along with the benchmark used to compare performance.

#### **Annualized Rates of Return** (Net of Fees)

(Retirement & HBS)

Time Weighted Returns	1 Year	3 Year	5 Year	10 Year	Inception
Total Fund	1.3%	13.2%	1.8%	6.3%	9.8%
Interim SAA Policy Benchmark	1.4%	12.6%	1.7%	6.0%	9.5%
Domestic Equity	2.8%	17.5%	1.2%	6.3%	10.8%
S&P Custom Index	3.7%	17.2%	0.8%	5.7%	10.9%
Domestic Fixed Income	8.1%	8.0%	7.3%	6.0%	8.9%
Custom Fixed Income Index	7.5%	7.2%	6.9%	5.7%	n/a
International Equity	-13.1%	7.3%	-4.7%	5.7%	5.8%
MSCI Custom Index	-13.9%	7.7%	-4.0%	6.7%	5.4%
Commodities	-13.5%	n/a	n/a	n/a	3.3%
DJUBS Commodity Index	-14.3%	n/a	n/a	n/a	2.0%
Real Estate	12.3%	9.8%	n/a	n/a	1.1%
NFI-ODCE Index	14.7%	4.1%	n/a	n/a	4.0%
Private Equity	15.4%	16.8%	n/a	n/a	0.2%
Russell 2000	-0.2%	26.9%	n/a	n/a	2.0%
Opportunistic	2.9%	19.3%	n/a	n/a	8.1%

#### Historical Rates of Return¹ (Net of Fees)

(Retirement & HBS)

Fiscal Year	Return	Fiscal Year	Return	Fiscal Year	Return
2011-12	1.3%	2003-04	17.5%	1995-96	16.7%
2010-11	24.6%	2002-03	2.4%	1994-95	17.8%
2009-10	14.9%	2001-02	-8.2%	1993-94	1.9%
2008-09	-18.1%	2000-01	-6.7%	1992-93	16.7%
2007-08	-7.6%	1999-00	10.0%	1991-92	14.6%
2006-07	17.8%	1998-99	16.8%	1990-91	8.0%
2005-06	9.8%	1997-98	21.3%	1989-90	9.5%
2004-05	8.5%	1996-97	20.6%	1988-89	14.3%

Return on Private Equity Investments have not been included in Total Fund Performance for FY 2008 or 2009.

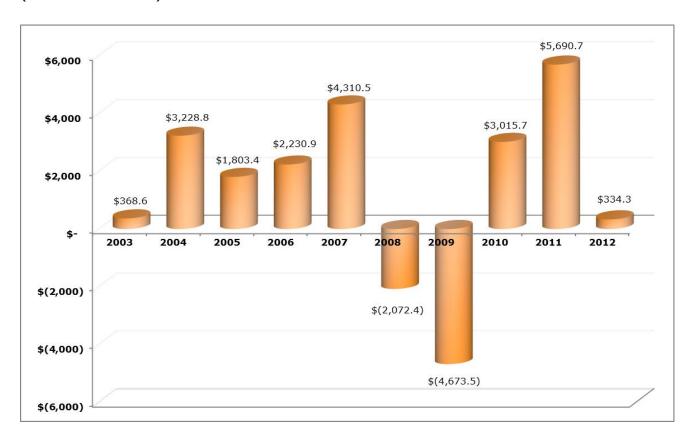
#### **Ten Year Review of Investment Income**

(Dollars in Thousands)

Fiscal Year	In	come	+	Net Apprec/(Depr) -	Expense	=	Net Income
2002-2003	\$	442,870		\$ (51,437)	\$ 22,801		\$ 368,632
2003-2004		447,623		2,811,047	29,885		3,228,785
2004-2005		454,389		1,382,587	33,584		1,803,392
2005-2006		523,997		1,758,899	51,957		2,230,939
2006-2007		604,320		3,766,089	59,891		4,310,518
2007-2008		654,878		(2,645,900)	81,419		(2,072,441)
2008-2009		285,665		(4,855,030)	104,125		(4,673,490)
2009-2010		647,859		2,484,029	116,170		3,015,718
2010-2011		925,578		4,893,382	128,281		5,690,679
2011-2012		891,210		(419,010)	137,905		334,295

#### **Net Income from Investments**

(Dollars in Millions)



# **ASSET ALLOCATION**

# **Summary of Investments**

(Dollars in Thousands)

	Investments					
	at Fair Value	Receivables	Payables		Total	% of Total
Temporary Investments	\$ 1,500,354	\$ 789,542	<b>1</b> \$ 794,756	<b>2</b> \$	1,495,140	5.41%
Securities Lending Collateral	50,070	-	50,070		-	0.00%
Equity Securities:						
Domestic Equity	12,590,828	-	-		12,590,828	45.58%
Non-U.S. Equity	4,746,597	-	-		4,746,597	17.18%
Fixed Income Securities:						
Corporate Obligations	2,228,419	-	-		2,228,419	8.07%
Government Obligations	3,147,369	-	-		3,147,369	11.39%
Real Estate	1,425,941	2,337	-		1,428,278	5.17%
Private Equity	1,333,375	163	-		1,333,538	4.83%
Opportunistic	653,543	-	-		653,543	2.37%
Total Investments	\$ 27,676,496	\$ 792,042	\$ 844,826	\$	27,623,712	100.00%

1RECEIVABLES INCLUDE:	<sup>2</sup> PAYABLES INCLUDE:				
Accrued Interest & Dividends	\$	67,534	Payable for Securities Purchased	\$	530,666
Securities Sold		439,563	Forward Contracts Payable		249,501
Forward Contracts Receivables		282,445	Other Payables		14,589
Total	\$	789,542	Total	\$	794,756

Note: A detailed listing of investments is available upon request.

# **Equity Sub-Sector Allocation**

(Dollars in Thousands)

	% of Equity		
	Portfolio	Fair Value	
US Large Cap Equity	54.06%	\$	9,373,136
US Mid Cap Equity	9.13		1,582,876
US Small Cap Equity	9.43		1,634,816
Total US Equity	72.62		12,590,828
Non US Equity	27.38		4,746,597
TOTAL EQUITY SECURITIES	100.00%	\$	17,337,425

# **Ten Largest Domestic Equity Holdings**

	% of Domestic Equity Portfolio
Apple, Inc.	2.55%
Exxon Mobil, Corp.	1.91
Microsoft Corp.	1.11
Intl Business Machines Corp.	1.09
Chevron Corp.	1.03
AT&T, Inc.	0.87
General Electric Co.	0.86
Wells Fargo & Co.	0.83
Pfizer, Inc.	0.83
Philip Morris International	0.77
Total	11.85%

Note: A detailed listing of investments is available upon request.

# **Distribution by Market Sector**

	ASRS Domestic	1
	Equity	S&P 500 Index
Consumer Discretionary	15.10%	11.00%
Consumer Staples	8.20	11.30
Energy	9.40	10.80
Financials	15.30	14.40
Healthcare	11.40	12.00
Industrials	12.80	10.40
Information Technology	18.30	19.70
Materials	3.90	3.50
Telecommunication Services	2.10	3.20
Utilities	3.50	3.70
Total	100.00%	100.00%

#### **Ten Largest International Equity Holdings**

	International Equity Portfolio
Vodafone Group, PLC	0.48%
Canon, Inc	0.48
Eni SPA	0.48
Roche Holding AG Genusschein	0.45
Standard Chartered, PLC	0.43
Novartis AG Reg	0.42
British American Tobacco, PLC	0.39
Nestle SA Reg	0.38
GDF Suez	0.36
Tenaris SA ADR	0.35
Total	4.22%

# **Summary of Broker Commissions**

(Dollars in Thousands)

<b>Summary of Broker Commissions</b>	С	ommission
Domestic Equity	\$	3,400
International Equity	\$	1,048

Note: A detailed listing of investments is available upon request.

# **Distribution by Sector**

	Percent
Asset Backed Securities	3.80%
Commercial Mortgage Backed	4.33
Corporate Bonds	32.71
Non-Government Backed CMO's	0.62
Government Related	9.47
Government Agencies CMO's	0.86
Government Bonds (Treasury)	23.19
Government Mortgage Backed	25.02
Total	100.00%

# **Distribution by Maturity**

	Percent
0 - 2 years	6.66%
2 to 3 years	13.54
3 to 4 years	24.55
4 to 5 years	9.70
5 to 6 years	7.91
6 to 8 years	11.39
> 8 years	26.25
Total	100.00%

# **Distribution by Coupon**

	Percent
0.00% - 6.5%	82.91%
6.51% - 7.50%	6.28
7.51% - 9.0%	7.02
> 9.00%	3.79
Total	100.00%

# **Ten Largest Domestic Fixed Income Holdings**

(Dollars in Thousands)

	Coupon	Maturity	Par Value	Fair Value	Percent
US TREASURY NOTE	4.63%	2/15/2040	\$ 71,700	\$ 99,121	1.84%
US TREASURY NOTE	3.63%	5/15/2013	55,000	56,607	1.05
US TREASURY NOTE	0.88%	1/31/2017	55,100	55,569	1.03
FED HM LN PC POOL A93995	4.50%	9/1/2040	51,070	54,596	1.02
US TREASURY NOTE	3.13%	4/30/2017	48,000	53,449	0.99
US TREASURY NOTE	3.50%	2/15/2018	45,000	51,487	0.96
FNMA POOL AE6805	4.50%	11/1/2040	45,586	48,922	0.91
US TREASURY NOTE	3.13%	5/15/2021	38,500	43,825	0.82
US TREASURY NOTE	4.13%	5/15/2015	37,000	40,894	0.76
FEDERAL HOME LOAN BANK	5.00%	11/17/2017	30,000	36,268	0.67
Total		-	\$ 476,956	\$ 540,738	10.05%

Note: A detailed listing of investments is available upon request.

# PORTFOLIO PROFILE

# Real Estate Portfolio Profile Ten Largest Real Estate Managers

(Dollars in Thousands)

	Fa	ir Value	% of Real Estate Portfolio
AEW Core Property Trust (U.S.), Inc.	\$	190,119	13.66%
CIM Urban REIT, LLC		79,292	5.70
PLA Retail Fund I, LP		63,434	4.56
Almanac Realty Securities IV, LP		63,303	4.55
PRISA II		54,564	3.92
Blackstone Real Estate Partners VI, LP		51,936	3.73
PLA Residential III, LP		51,897	3.73
Lone Star Fund VI (US), LP		51,185	3.68
CIM Fund III, LP		50,745	3.65
CB Richard Ellis Strategic Partners US Value 5, LP		43,303	3.11
Total	\$	699,778	50.29%

Note: A complete list of real estate investments appears on page 89.

# **Private Equity Portfolio Profile Ten Largest Private Equity Managers**

(Dollars in Thousands)

	Fair Value	% of Private Equity Portfolio
Levine Leichtman Capital Partners IV, LP	\$ 67,445	5.06%
Partners Group Secondary 2008, LP	61,285	4.60
First Reserve Fund XII, LP	59,609	4.47
Oakhill Capital Partners III, LP	58,704	4.40
Warburg Pincus Private Equity X, LP	48,505	3.64
TCW/Crescent Mezzanine Partners V, LP	47,855	3.59
Yucaipa American Alliance Fund II, LP	47,730	3.58
White Deer Energy, LP	45,059	3.38
Wayzata Opportunities Fund II, LP	44,294	3.32
Centerbridge Capital Partners, LP	40,239	3.02
Total	\$ 520,725	39.06%

# **Opportunistic Portfolio Profile Opportunistic Managers**

(Dollars in Thousands)

	Fa	ir Value	% of Opportunistic Portfolio
TCW Capital Trust	\$	150,045	22.96%
Blackstone/GSO Capital Solutions Fund, LP		123,836	18.95
Avenue Europe Special Situations Fund II (US), LP		93,865	14.36
Blackrock Mortgage Investors, LP		83,321	12.75
Oaktree Opportunities Fund VIIIb, LP		61,286	9.38
Oaktree Opportunities Fund VIII, LP		55,119	8.43
OCM STR Co-Invest 1, LP		52,733	8.07
Blackrock Credit Investors II, LP		18,436	2.82
TPG Specialty Lending, Inc.		14,902	2.28
Total	\$	653,543	100.00%

Note: A complete list of private equity and opportunistic investments appears on pages 90 and 91, respectively.

# **SCHEDULE OF BROKER COMMISSIONS**

# **Domestic Equity Trades**

Broker Name	Dollar Amount of Trades	Number of Shares	Average Commission Per Share	Dollar Amount of Commission
Barclays Capital Inc./LE	\$ 200,498	6,245	\$ 0.0131	\$ 82
Barclays Capital LE	11,768	351	0.0427	15
BMO Capital Markets	12,162	388	0.0464	18
BNP Paribas Brokerage Securities, Inc.	23,550	1,012	0.0109	11
BNY Convergex LJR	185,217	3,950	0.0182	72
BNY ESI & Co., Inc.	24,801	679	0.0412	28
BTIG, LLC	38,287	1,266	0.0482	61
Cantor Fitzgerald & Co.	20,074	910	0.0264	24
Capital Institutional Svcs Inc. Equities	201,853	3,841	0.0263	101
Citigroup Global Markets, Inc.	536,662	11,125	0.0105	117
Cowen & Company, LLC	14,353	526	0.0399	21
Credit Suisse Securities (USA) LLC	348,767	10,312	0.0178	184
Deutsche Bank Securities, Inc.	205,806	4,730	0.0345	163
Fidelity Capital Markets	124,749	4,113	0.0311	128
Goldman Sachs & Co.	50,546	1,459	0.0404	59
Goldman Sachs International	14,686	367	0.0136	5
Guzman & Co.	80,195	1,405	0.0285	40
Instinet, LLC	276,537	9,134	0.0177	162
Investment Technology Group, Inc.	726,082	30,181	0.0051	153
ISI Group, Inc.	13,633	533	0.0263	14
ITF Inc.	172,011	5,807	0.0103	60
Janney Montgomery Scott, Inc.	10,419	254	0.0394	10
Jefferies & Company, Inc.	179,451	5,087	0.0193	98
Keefe Bruyette & Woods, Inc.	13,459	414	0.0435	18
Keybanc Capital Markets, Inc.	25,607	602	0.0449	27
Knight Equity Markets L.P.	344,455	7,363	0.0277	204
Liquidnet, Inc.	113,942	4,073	0.0182	74
Merrill Lynch Pierce Fenner & Smith, Inc.	288,933	8,381	0.0136	114
Morgan Stanley & Co., Inc.	298,027	3,932	0.0170	67
Nomura Securities International, Inc.	528,257	18,501	0.0105	194
Oppenheimer & Co., Inc.	25,993	667	0.0450	30

# **Domestic Equity Trades – continued**

(Dollars in Thousands)

Broker Name	llar Amount of Trades	Number of Shares	Со	Average mmission er Share	ollar Amount Commission
Piper Jaffray	\$ 12,517	419	\$	0.0430	\$ 18
Pulse Trading, LLC	13,217	519		0.0135	7
Raymond James And Associates Inc.	34,941	961		0.0427	41
RBC Capital Markets	26,250	976		0.0389	38
Robert W. Baird Co. Inc.	50,881	1,392		0.0438	61
Rosenblatt Securities, LLC	121,892	2,309		0.0264	61
Sanford C Bernstein Co., LLC	83,778	2,064		0.0242	50
Scott & Stringfellow, Inc.	11,262	206		0.0437	9
State Street Global Markets, LLC	417,313	9,323		0.0102	95
Sterne, Agee & Leach, Inc.	13,671	416		0.0457	19
Stifel Nicolaus & Co., Inc.	45,639	1,411		0.0482	68
Sungard Brokerage & Securities Svcs, LLC	40,733	1,408		0.0071	10
Suntrust Capital Markets, Inc.	10,159	225		0.0444	10
UBS Securities, LLC	163,545	3,751		0.0243	91
Wallachbeth Capital, LLC	271,319	4,623		0.0100	46
Weeden & Co.	145,281	3,329		0.0225	75
Wells Fargo Securities, LLC	21,845	698		0.0444	31
William Blair & Co., LLC	18,111	572		0.0437	25
Various Other Brokers	1,036,316	788,931		0.0004	291
Total	\$ 7,649,450	971,141	\$	0.0035	\$ 3,400

Note: A detailed listing of broker commissions is available upon request. Direct inquiries to: ASRS, 3300 North Central Avenue, Phoenix, AZ 85012

# **Foreign Equity Trades**

(Dollars in Thousands)

Broker Name	 Dollar mount of Trades	Number of Shares	Со	Average mmission Per Share	 ar Amount ommission
BNP Paribas Securities Services	\$ 14,835	666	\$	0.0330	\$ 22
Credit Agricole Indosuez Cheuvreux	24,772	1,562		0.0243	38
Credit Suisse Securities (Europe) Ltd	31,387	2,364		0.0161	38
Credit Suisse Securities (USA) LLC	37,197	5,727		0.0058	33
Deutsche Bank Securities, Inc.	53,058	6,048		0.0112	68
Exane S.A.	23,306	974		0.0349	34
Goldman Sachs & Co.	28,417	2,388		0.0109	26
Investment Technology Group, LTD	11,310	1,281		0.0078	10
JP Morgan Clearing Corp.	10,478	470		0.0149	7
JP Morgan Securities, PLC	19,853	1,028		0.0282	29
Merrill Lynch International	36,219	3,724		0.0148	55
Merrill Lynch Pierce Fenner Smith, Inc. NY	28,737	3,423		0.0085	29
Morgan Stanley Co., Inc.	47,154	5,206		0.0125	65
Nomura International, PLC	10,281	942		0.0117	11
Nomura Securities International, Inc.	10,915	1,803		0.0116	21
Sanford C. Bernstein, Ltd	12,941	690		0.0290	20
UBS AG	18,305	2,856		0.0098	28
UBS Securities Asia, Ltd	21,151	7,076		0.0055	39
Various Other Brokers	461,496	122,016		0.0039	475
Total	\$ 901,812	170,244	\$	0.0062	\$ 1,048

Note: A detailed listing of broker commissions is available upon request. Direct inquiries to: ASRS, 3300 North Central Avenue, Phoenix, AZ 85012

# **Equity and Fixed Income**

**Excluding Securities Lending** (Dollars in Thousands)

	Assets Managed at Fair Value at June 30, 2012	Management & Other Fees
Aberdeen Asset Management	\$ 391,232	\$ 2,465
ASRS Internal	10,508,068	34
Blackrock Custom US Debt Fund	326,183	496
Blackrock Dow Jones/UBS	4,407	19
Blackrock EAFE Country Fund U/A	1,571,288	1,162
Blackrock Index Fund A	320,815	36
Blackrock Intermediate Govt/Credit Bond Index Fund	23,088	5
Blackrock MSCI EAFE Small Cap	59,780	115
Blackrock MSCI Emerging Markets Free B	379,387	452
Blackrock US Real Estate Securities Fund B	15,547	22
Blackrock US High Yield Bond Index Fund B	6,021	11
Blackrock US Debt Index Fund B	58,856	36
Blackrock Russell 1000 Index Fund B	102,416	51
Blackrock Russell 2000 Index Fund B	17,960	12
Brandes Investment Partners International Equity	356,140	2,574
Bridgewater Associates Global Tactical Asset Allocation	2,285,572	12,502
Cargill, Inc.	124,326	376
Champlain Investment Partners	144,116	1,110
Clear Channel Private Stock	1,107	-
Columbia Management Investment Advisors, LLC	605,916	1,093
Cramer Rosenthal McGynn Mid Cap Value	146,063	711
Credit Suisse Alternative Capital, Inc.	2,137	1,609
Dimensional Fund Advisors Equity Fund	489,031	877
Dimensional Fund Advisors International Small Cap	100,201	999
Eaton Vance Investment Managers	335,266	2,799

# **Equity and Fixed Income – continued**

Excluding Securities Lending (Dollars in Thousands)

	Assets Managed at Fair Value at June 30, 2012	Management
European Investors, Inc.	\$	_ \$ 18
Forum Securities, Ltd.	11	6 -
Franklin Templeton Investments	174,81	0 1,548
Gresham Investment Management	516,00	3 1,532
Guggenheim Partners Management	268,03	6 1,782
Hansberger Global Investors, LC	248,28	4 1,407
Intech Large Capital	777,73	2,430
Jacobs Levy Equity Management	222,91	2,103
LSV Asset Management - Emerging Markets Equity Fund LP	150,64	7 1,476
LSV Asset Management - US Large Cap Value Account	643,48	7 1,641
Pacific Investment Management Company	777,08	2 1,610
QS Investors		4 678
Sankaty Advisors, LLC		_ 669
Shenkman Capital Management	149,39	8 598
Timessquare Capital Management	533,19	7 4,003
Walter Scott & Partners	180,02	6 1,257
Wellington Management Co Mid Cap Opportunities	434,10	0 2,137
William Blair & Company	291,95	8 1,599
Windham Capital Management	470,85	3 1,415
Total	\$ 24,213,56	57 \$ 57,469

**Real Estate** 

	Net Assets Managed at Fair Value at June 30, 2012	Management & Other Fees
AEW Core Property Trust (U.S.), Inc.	\$ 190,119	\$ 928
AEW Value Investors Fund II, LP	32,699	
Alcion Real Estate Partners Tax-Exempt Parallel Fund II, LP	9,358	1,159
Almanac Realty Securities IV, LP	63,303	
Almanac Realty Securities V, LP	37,330	150
ASRS Internal	34,431	4,048
Blackstone Real Estate Partners VI, LP	51,936	2,210
Carlyle Realty Partners V, LP	34,881	590
CB Richard Ellis Strategic Partners US Opportunity 5, LP	39,697	440
CB Richard Ellis Strategic Partners US Value 5, LP	43,303	2,009
CIM Fund III, LP	50,745	554
CIM Urban REIT, LLC	79,292	842
CIM VI (Urban REIT), LLC	2,767	6
Colony Investors VIII, LP	14,382	470
Dune Real Estate Fund II, LP	33,720	1,555
Dune Real Estate Fund, LP	27,430	563
Five Mile Capital II LOPO Co-Investment, LP	13,758	568
Five Mile Capital Partners II, LP	36,762	852
H/2 Special Opportunities II, LP	34,871	849
Harrison Street Real Estate Partners III, LP	34,250	825
Heitman Value Partners II, LP	40,410	160
Hines US Core Office Fund, LP	-	60
Hunt Commercial Realty Partners III, LP	31,294	544
Invesco Asian Real Estate Partners II (USD), LP	15,324	243
Lone Star Fund VI (US), LP	51,185	2,003
Lone Star Real Estate Fund (US), LP	14,905	155
M&G Real Estate Debt Fund, LP	35,540	1,510
Oaktree Real Estate Opportunities Fund V, LP	41,939	757
PLA Residential III, LP	51,897	721
PLA Retail Fund I, LP	63,434	876
PRISA II	54,564	583
RREEF Global Opportunities Fund II, LLC	29,250	599
Tishman Speyer Real Estate Venture VI, LP	16,592	138
Tishman Speyer Real Estate Venture VII, LP	31,258	691
Waterton Residential Property Venture XI, LP	15,727	707
Westbrook Real Estate Fund VII, LP	35,537	568
Westbrook Real Estate Fund VIII, LP	32,051	751
Total	\$ 1,425,941	\$ 30,561

# **Private Equity**

	Net Assets Managed at Fair Value at June 30, 2012	Management & Other Fees
Accel-KKR Capital Partners III, LP	\$ 18,614	\$ 767
Apollo Investment Fund VII, LP	40,177	584
Apollo Natural Resources Partners, LP	11,851	532
Arlington Capital Partners III, LP	206	930
Atlas Venture Fund VIII, LP	9,030	505
Baird Capital Partners V, LP	20,768	2,834
Blackrock Private Opportunities Fund, LP	9,766	91
Blackstone Capital Partners VI, LP	9,425	898
Bridgepoint Europe IV 'D', LP	26,342	517
Brookfield Special Situations Fund III (NR A), LP	11,214	510
Catalyst Fund Limited Partnership III	24,339	1,005
Centerbridge Capital Partners, LP	40,239	1,513
CMEA Ventures VII, LP	5,610	196
Crown European Buyout Opportunities II, Plc	12,864	644
CVC European Equity Partners V (C), LP	38,979	2,169
Edgewater Growth Capital Partners III, LP	11,624	1,634
Energy Capital Partners II-A, LP	24,913	1,388
First Reserve Fund XII, LP	59,609	1,029
IDG Ventures SF, LP	5,339	236
JLL Partners Fund VI, LP	12,651	(420)
Khosla Ventures IV, LP	5,443	288
Kinderhook Capital Fund III, LP	18,854	1,363
Levine Leichtman Capital Partners Deep Value Fund II		435
Levine Leichtman Capital Partners IV, LP	67,445	873
Linconshire Equity Fund IV-A, LP	4,855	435
Linden Capital Partners II, LP	6,182	467
Littlejohn Fund IV-A, LP	13,221	302
LLR Equity Partners III, LP	25,493	600
Maranon Mezzanine Fund, LP	19,818	301
Montreux Equity Partners IV, LP	6,896	695
Nautic Partners VI, LP	37,097	389
New Atlantic Ventures Fund III, LP	8,616	223
New Mountain Partners III, LP	26,596	639
Oakhill Capital Partners III, LP	58,704	966
Oaktree European Principal Fund III, LP	13,920	250
Onex Partners III, LP	33,115	1,379
Partners Group Secondary 2008, LP	61,285	1,212
Partners Group Secondary 2011 (USD), LP INC	8,607	-
Paul Capital Partners IX, LP	26,338	458
Peninsula Technology Ventures, LP	8,992	220
Pine Brook Capital Partners, LP	31,027	2,497

# **Private Equity – continued**

(Dollars in Thousands)

	M Fa		Management & Other Fees
Platinum Equity Capital Partners II, LP	\$	36,651	\$ 63
Quantum Energy Partners V, LP		5,702	1,100
Saybrook Corporate Opportunity Fund, LP		12,210	400
Seidler Equity Partners IV, LP		4,896	881
Silver Lake Partners III, LP		23,663	1,190
TCW/Crescent Mezzanine Partners V, LP		47,855	836
Tenex Capital Partners, LP		7,624	1,817
The Resolute Fund II, LP		23,229	453
The Veritas Capital Fund IV, LP		39,502	249
Thomas H Lee Equity Fund VI, LP		39,031	434
Vista Equity Partners Fund IV, LP		16,567	-
Warburg Pincus Private Equity X, LP		48,505	807
Waud Capital Partners QP III, LP		14,378	831
Wayzata Opportunities Fund II, LP		44,294	1,041
White Deer Energy, LP		45,059	3,623
Yucaipa American Alliance Fund II, LP		47,730	664
Total	\$	1,333,375	\$ 45,943

# **Opportunistic**

	Net Assets Managed at Fair Value at June 30, 2012	Management 2 & Other Fees
Avenue Europe Special Situations Fund II (US), LP	\$ 93,86	5 \$ 1,539
Blackrock Credit Investors II, LP	18,436	(994)
Blackrock Mortgage Investors, LP	83,321	904
Blackstone/GSO Capital Solutions Fund, LP	123,836	5 49
Oaktree Opportunities Fund VIII, LP	55,119	(840)
Oaktree Opportunities Fund VIIIb, LP	61,286	679
OCM STR Co-Invest 1, LP	52,733	188
TCW Capital Trust	150,04	1,751
TPG Specialty Lending, Inc.	14,90	2 656
Total	\$ 653,543	\$ 3,932

# **IV. Actuarial Section**

#### **PLAN AND HBS**

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#### **ACTUARIAL CERTIFICATION - PLAN AND HBS**

Arizona State Retirement Plan Actuarial Valuation - June 30, 2011

# Actuarial Certification ARIZONA STATE RETIREMENT PLAN Actuarial Certification Statement

This is to certify that Buck Consultants has prepared an actuarial valuation of the Arizona State Retirement Plan as of June 30, 2011. The Plan provisions are described in Title 38, Chapter 4, Article 2 of the Arizona Revised Statutes. All benefits described in the statutes are reflected in this valuation, except that future PBI and enhanced PBI awards are not valued.

Actuarial calculations have been made with respect to a total of 530,513 members – 208,939 active members, 208,969 inactive members, 107,996 retired members and beneficiaries, and 4,609 members on long term disability. In addition, there are 259 System retirees receiving only ad hoc benefits, 545 System retirees receiving only health insurance benefits, and 134 System retirees receiving both ad hoc benefits and health insurance benefits from the Plan.

The actuarial calculations establish a total benefit cost of 21.80% of the annual compensation of members. The total normal cost rate is 13.34% of compensation and the required amortization payment determined in accordance with Section 38-737 is 8.46% of compensation.

#### Actuarial Valuation of the Plan as of June 30, 2011

We have made all calculations for this report in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, the report's results comply with the requirements of the Arizona Constitution and statutes and, where applicable, the Internal Revenue Code, the Employee Retirement Income Security Act of 1974 (ERISA), and the Statements of the Governmental Accounting Standards Board. The undersigned actuary is independent. He is an Enrolled Actuary, Fellow of the Society of Actuaries and Member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. He is experienced in performing valuations for large public retirement systems and fully qualified to provide actuarial services to the State of Arizona. This report has been prepared in accordance with all applicable Actuarial Standards of Practice.

#### **Actuarial Valuations**

The primary purpose of the valuation report is to determine the required member and employer contribution rates, to describe the current financial condition of the Plan, and to analyze changes in the Plan's condition. In addition, the report provides information that ASRS requires in connection with Governmental Accounting Standards Board Statement Numbers 25 and 43 (GASB Nos. 25 and 43) and it summarizes census data.

Valuations are performed annually as of June 30, the last day of both the Plan year and ASRS' fiscal year.

#### **Funding Objectives**

The actuarial valuation calculates the contribution rates payable by members and participating employers. These rates, when applied to payroll, yield contribution amounts sufficient to provide for the normal cost and to amortize the Unfunded Actuarial Accrued Liability (UAAL) over the period specified in the statutes. The rate calculated becomes effective for the next fiscal year. For example, the total rate calculated in the June 30, 2011, valuation report (21.80%) is applicable for the fiscal year beginning July 1, 2012.



#### Arizona State Retirement Plan Actuarial Valuation - June 30, 2011

#### **Funding Progress**

The 2010 valuation determined the total rate for fiscal 2012 as 20.96%. The 2011 valuation calculates a total rate of 21.80% to become effective July 1, 2012. These rates do not include contributions to the LTD program. Actual contributions have matched the calculated contributions in recent years except for temporary differences, and we assume that members and employers will continue to contribute the actuarially determined amounts. Contributing these amounts ensures the realization of funding objectives.

Section 38-737 of the Arizona Revised Statutes specifies that the UAAL is to be amortized over a rolling 30-year period.

#### **Benefit Provisions**

Our valuation will reflect the following changes in Plan provisions as they become effective:

- State employees hired after July 20, 2011, will not be eligible for the ASRS Plan or LTD program before their 27th week of employment, unless they are already members of ASRS.
- 2. For members whose membership commences on or after July 1, 2011, the 85-point requirement is removed and replaced by two rules: age 60 and 25 years of credited service or age 55 and 30 years of credited service. Early retirement reductions are adjusted to reflect these new rules.
- 3. Purchases of Other Public Service, Leave of Absence Service, and Military Service (except USERRA or Heart Act purchases) are limited to 60 months for each type of purchase, and a member is required to have ten years of credited service before initiating a request to purchase such service.
- 4. Employers are required to pay an Alternate Contribution Rate (ACR) for retired members who return to work on or after July 1, 2012, in any capacity and in a position ordinarily filled by an employee of the employer. The ACR is the greater of 2% or the contribution rate to fund the deficits of the Plan and LTD program, but not greater than the employer's portion of the total contribution rate for the Plan and LTD program.
- 5. Retroactive to July 1, 2011, responsibility for making contributions to the ASRS Plan and LTD programs is changed from 50% employees and 50% employers to 53% employees and 47% employers. Pre-retirement survivor benefits are based on the sum of employee and employer balances, rather than twice the employee balance.

Section 11 gives details of benefit provisions.



<sup>&</sup>lt;sup>1</sup> Subsequent to the completion of this actuarial valuation, the 50<sup>th</sup> Arizona State Legislature enacted legislation which retroactively reverted the contribution rate percentage back to 50% for employees and 50% for employers, as of July 1, 2011.

#### ACTUARIAL CERTIFICATION - PLAN AND HBS (CONTINUED)

#### Arizona State Retirement Plan Actuarial Valuation - June 30, 2011

#### Assumptions and Methods

We performed an experience study for the five-year period ended June 30, 2007, and recommended assumption changes based on the findings. On April 18, 2008, the Board adopted revised actuarial assumptions to be effective June 30, 2008. On November 23, 2009, the Board adopted further revised actuarial assumptions to be effective June 30, 2009. On November 18, 2011, the Board adopted an optional form load to liabilities and a new salary scale, where the wage inflation rate is decreased by 0.5%, to be effective June 30, 2011.

On November 15, 2002, the Board adopted a change in the method of valuing actuarial assets. The Board removed the requirement that actuarial assets be within 20% of market value and prospectively changed the period for recognizing investment gains or losses from five to ten years. Section 9 of this report provides details of the assumptions and methods. The assumptions are internally consistent and are reasonably based on the actual experience of the Plan. These assumptions are in full compliance with GASB Statement Nos. 25 and 43.

#### Data

ASRS staff supplied census data for retired, active, and inactive members as of June 30, 2011. We have not audited these data, but have examined them for reasonableness and consistency with the prior year's data. ASRS staff also supplied asset information.

#### Trend Data and Supporting Schedules

ASRS prepared all trend data schedules in the financial section of ASRS' Comprehensive Annual Financial Report (CAFR). ASRS also prepared all supporting schedules in the actuarial section of the CAFR.

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# Actuarial Valuation - June 30, 2011 Arizona State Retirement Plan

The actuarial cost factors as of June 30, 2011, for the total Plan are as follows:

I	Actuarial accrued liabilities	401(a) Account	91	401(h) Account	-	Total
	A. Liabilities due to member's benefits					
	1. Active members					
	a. Retirement benefits	\$ 13,049,077,614	↔	0	8	13,049,077,614
	<ul> <li>b. Health insurance premium supplement</li> </ul>	0		783,757,224		783,757,224
	c. Disability deferred retirement benefits	407,089,102		0		407,089,102
	d. Pre-retirement death benefits	391,479,624		0		391,479,624
	e. Withdrawal benefits	1,092,825,217		0		1,092,825,217
	f. Total active members	\$ 14,940,471,557	69	783,757,224	69	15,724,228,781
	2. Inactive members	1,569,626,040		50,839,272		1,620,465,312
	3. Retired members and beneficiaries	19,433,574,123		629,032,952		20,062,607,075
	4. Disabled members (deferred retirement)	685,992,571		34,686,338		720,678,909
	5. Benefit increases for other-than-plan members	2,114,464		5,873,888		7,988,352
	6. Post-1981 System members	419,400,584		0		419,400,584
	7. Total present value of benefits	\$ 37,051,179,339	69	1,504,189,674	69	38,555,369,013
	B. Other miscellaneous liabilities and reserves	0		0		0
	C. Reserve for future PBIs	0		0		0
	D. Total actuarial accrued liability	\$ 37,051,179,339	69	1,504,189,674	€9	38,555,369,013
Π.	Actuarial value of assets1	27,983,517,225		1,247,443,042		29,230,960,267
Ħ	Unfunded actuarial accrued liability (Item I Item II.)	9,067,662,114		256,746,632		9,324,408,746
N.	. Amortization of unfunded actuarial accrued liability (per Section 38-737)	745,797,074		21,116,897		766,913,971
>	Normal cost for the year	1,170,467,758		38,425,708		1,208,893,466
VI.	. Total contribution for the year (Item IV. + Item V.)	\$ 1,916,264,832	€9	59,542,605	↔	1,975,807,437
M	VII. Total covered payroll (projected to 2011/2012 plan year)	\$ 9,060,630,604	€9	9,060,630,604	69	9,060,630,604
M	VIII. Total contribution for fiscal year 2013 as a percentage of covered payroll					
	A. Member portion	11.55%		0.00%		11.55%
	B. Employer portion	%09'6		0.65%		10.25%
	C. Total	21.15%		0.65%		21.80%
X.	. Present value of future covered payroll	\$ 67,527,783,569	8	0	69	67,527,783,569
×	Present value of future benefits <sup>1</sup>	\$ 46,650,367,180	8	1,661,731,486	8	48,312,098,666
X.	XI. Present value of future normal cost (Item X Item I.D.)	\$ 9,599,187,841	\$	157,541,812	S	9,756,729,653

<sup>&</sup>lt;sup>1</sup> Includes System assets and liabilities for members who retired or will retire on or after July 1, 1981 for 401(a).

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<sup>1</sup> Subsequent to the completion of this actuarial valuation, the 50th Arizona State Legislature enacted legislation which retroactively reverted the contribution rate percentage back to 50% for employees and 50% for employers, as of July 1, 2011.

#### **ACTUARIAL CERTIFICATION - PLAN AND HBS (CONTINUED)**

#### Arizona State Retirement Plan Actuarial Valuation - June 30, 2011

The Board adopted a new asset valuation method (described in Section 9B) on November 15, 2002, to be effective for valuations on and after June 30, 2002.

On November 23, 2009 the Board adopted assumptions to be effective for valuations on and after June 30, 2011. On November 18, 2011, the Board adopted an optional form load on liabilities and the 0.50% decrease in the wage inflation assumption to be effective for valuations on and after June 30, 2011. These assumptions are as follows:

1. Investment yield - 8% per annum net of all expenses.

#### 2. Salary increases

Years of Service	Merit Component	Total Salary Increase		
1	5.00%	9.00%		
2	4.00	8.00		
3	2.50	6.50		
4	1.80	5.80		
5	1.40	5.40		
6	1.25	5.25		
7	1.00	5.00		
8	0.80	4.80		
9	0.75	4.75		
10	0.50	4.50		
11 to 19	0.25	4.25		
20 or more	0.00	4.00		

<sup>\*</sup> Total salary increase rate = wage inflation (or growth) rate (3.25%) + productivity increase rate (0.75%)

#### 3. Rates of disability

_	Age	Males	Females
	20	0.04%	0.06%
	30	0.05	0.08
	40	0.16	0.16
	50	0.38	0.36
	60	0.90	0.82

4. Rates of withdrawal - Sample ages and years of service

		Years of Service Male Members				
Age		1	2	5	8	10+
	20	20.50%	15.00%	9.25%	5.75%	17.24%
	30	20.50	15.00	9.25	5.75	7.63
	40	20.50	15.00	9.25	5.75	3.06
	50	20.50	15.00	9.25	5.75	2.09
	60	20.50	15.00	9.25	5.75	1.46

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<sup>+</sup> merit component

### Arizona State Retirement Plan Actuarial Valuation - June 30, 2011

	Years of Service Female Members								
Age	1	2	5	8	10+				
20	20.50%	15.00%	9.25%	5.75%	29.00%				
30	20.50	15.00	9.25	5.75	11.08				
40	20.50	15.00	9.25	5.75	3.23				
50	20.50	15.00	9.25	5.75	2.25				
60	20.50	15.00	9.25	5.75	1.19				

5. Rates of retirement - Sample ages and years of service

	Years of	Service	
0-4	5	6-9	10-19
0.00%	10.00%	5.00%	5.00%
0.00	10.00	5.00	5.00
0.00	9.00	9.00	9.00
0.00	15.00	15.00	33.00
30.00	30.00	30.00	30.00
22.00	22.00	22.00	22.00
20	25	30	31+
7.00%	8.67%	35.00%	20.00%
7.00	25.00	35.00	13.63
35.00	25.00	35.00	24.00
35.00	25.00	35.00	33.00
35.00	25.00	35.00	30.00
35.00	25.00	35.00	22.00
	0.00% 0.00 0.00 0.00 30.00 22.00 20 7.00% 7.00 35.00 35.00 35.00	0-4         5           0.00%         10.00%           0.00         10.00           0.00         9.00           0.00         15.00           30.00         30.00           22.00         22.00           20         25           7.00         25.00           35.00         25.00           35.00         25.00           35.00         25.00           35.00         25.00           35.00         25.00	0.00%         10.00%         5.00%           0.00         10.00         5.00           0.00         9.00         9.00           0.00         15.00         15.00           30.00         30.00         30.00           22.00         22.00         22.00           20         25         30           7.00         25.00         35.00           35.00         25.00         35.00           35.00         25.00         35.00           35.00         25.00         35.00           35.00         25.00         35.00           35.00         25.00         35.00

Deferred vested members are assumed to retire at their normal retirement age.

- 6. Mortality rates 1994 GAM Static, Projected to 2010 with Projection Scale AA with no setback. This mortality assumption was chosen to be used from June 30, 2008 to June 30, 2012. The rates were projected to the middle point of this period and include an appropriate level of conservatism that reflects expected future mortality improvements.
- 7. Mortality rates after disability Post disablement mortality rates are based on experience of other large public sector system and ASRS' own experience.
- 8. Future Retirees Eligible for the Health Insurance Premium Supplement It is assumed that 70% of future retirees will be eligible to receive the post-retirement health insurance premium supplement and that 35% of those retirees will be eligible for the dependent premium supplement.



### **ACTUARIAL CERTIFICATION - PLAN AND HBS** (CONTINUED)

### Arizona State Retirement Plan Actuarial Valuation - June 30, 2011

9. Portion of members who will not withdraw their contributions - It is assumed that active members who terminate (prior to eligibility for retirement) and deferred vested members who have already terminated will choose to receive the enhanced refund option if the value of the enhanced refund option is greater than the present value of the deferred benefit. Otherwise, the members are assumed to elect to receive the deferred benefit. If the member is assumed to elect the enhanced refund option, then it is also assumed that the member forfeits the health insurance premium supplement.

Members who terminate eligible for early retirement are assumed to commence payments immediately.

- 10. Spouse Assumptions We assume that 100% of the members are married. We also assume that the husband is three years older than the wife.
- 11. Modified Cash Refund Assumption We assume that members who elect a single life annuity will receive accumulated benefit payments equal to their contributions after three years of being in receipt.
- 12. 415(b) Limits 415(b) limits are not applied in the Plan valuation because there is an excess plan that pays benefits above the 415(b) limit.
- 13. Optional Form load on liabilities A load of 0.087% has been added to the nonretired 401(a) liabilities to account for the election of optional forms other than a single life annuity.

The asset valuation method is the market value less ten year phase-in of excess (shortfall) investment income. See Section 9B.

The funding method is the projected unit-credit method as prescribed in Arizona Revised Statutes Section 38.757A.

The actuarial calculations have been performed by qualified actuaries in accordance with accepted actuarial procedures based on the current provisions of the Plan and on the actuarial assumptions adopted by the Board.

ASRS prepared all trend data schedules in the financial section and the supporting schedules in the actuarial section of its Comprehensive Annual Financial Report.

Sincerely,

Charles E. Chittenden, FSA, EA, MAAA

Charles E. Chittender

## **GENERAL ACTUARIAL INFORMATION - PLAN AND HBS**

The following charts prepared by the actuary will serve to indicate some of the more important statistics regarding the retirement program; each chart will identify each membership category separately where possible.

As of June 30, 2011

Active Members	Higher Education Members	Other Education Members	City Members	County Members	State Members	Political Subdivision Members	Total Active Members
Number of Members (active)	24,352	113,103	16,992	21,704	26,685	6,103	208,939
Average age	46.8	45.0	45.4	46.9	47.0	46	45.7
Average annual salary	\$50,473	\$38,170	\$54,556	\$46,920	\$45,902	\$56,390	\$43,365
Average years of service	9.7	9.2	10.0	9.6	10.1	7.6	9.4

### As of June 30, 2011

Retired Members	Higher Education Members	Other Education Members	City Members	County Members	State Members	Political Subdivision Members	Total Retired Members
Number of Retirees	12,725	58,087	6,750	11,574	17,585	1,275	107,996
Average age	71.1	69.5	67.4	70.0	70.0	68.8	69.7
Average monthly benefit	\$1,801	\$1,715	\$1,799	\$1,287	\$1,378	\$1,488	\$1,627
Average years of service	19.3	20.5	19.1	16.9	18.4	16.1	19.5

Of all plan retirees at June 30, 2011, 57.9% received annuities of more than \$1,000 per month. 12.6% received less than \$300 per month. Of the retirees 12.8% are less than 60 years old, 60.8% are between 60 and 75 years old, and 26.4% are over 75 years old.

## **Funding Objective**

The funding objective of the Arizona State Retirement System is to maintain reasonably stable contribution rates and to achieve an ultimate funded status of 100%. As of June 30, 2011, the date of the most recent actuarial valuation, this funding level is 75.8%. When the present actuarial asset value of \$29.231 billion is compared to the actuarial liabilities of \$ 38.555 billion, actuarial liabilities exceed actuarial assets by the amount of \$ 9.324 billion.

As of fiscal year 2008, statutory changes require annual actuarial valuations, not the biannual valuation required by a prior statutory change effective in 1998. The rates determined by the Plan, System and HBS (combined) valuations do not include contributions to the LTD program.

## Normal Costs and Required Contribution Rates (measured as of June 30, 2011)

The Plan's normal cost, for fiscal year (FY) 2010-2011 was 13.34% and for FY 2009-2010 was 13.33%. The normal cost represents the present value cost, expressed as a percentage of pay, of the current level of benefits provided by the Plan. The Plan has a positive unfunded actuarial accrued liability (an actuarial deficit), which is treated as a debit on the Plan's required contribution rate. Because of the actuarial deficit, the required contribution rate is higher than the normal cost. If the actuarial value of assets and liabilities were equal, the required contribution rate would be the same as the normal cost. Because liabilities exceed assets, the required contribution rate is higher than the normal cost. Components of the normal cost are as follows:

Components of Normal Cost 1  Retirement benefits	9,62%
Health insurance premium supplement	0.42%
Survivor benefits	0.38%
Withdrawals	2.56%
Long-term disability benefit	0.36%
Total, Normal Cost	13.34%
Amortization of the UAAL	8.46%
Required contribution rate for FY 2012	21.80%
Required contribution rate for FY 2012	10.48%
Required matching contribution rate shared by member and employer to the nearest 0.05%	10.50% <sup>2</sup>

<sup>&</sup>lt;sup>1</sup> 2010 results include System liabilities and assets for members who retired or will retire on or after July 1, 1981.

### **Asset Valuation**

The ASRS actuary determines the actuarial value of assets by recognizing investment gains and losses over a period of time. For gains and losses that occurred before fiscal 2002, the period is five years. For gains and losses that occurred in fiscal 2002, or later years, the period is ten years. The gradual recognition of investment gains and losses reduces volatility in the year-to-year level of contribution rates.

<sup>&</sup>lt;sup>2</sup> Subsequent to the completion of this actuarial valuation, the 50<sup>th</sup> Arizona State Legislature enacted legislation which retroactively reverted the contribution rate percentage back to 50% for employees and 50% for employers, as of July 1, 2011.

## **Long-Term Disability Benefit**

In addition to pension, health insurance, and survivor benefits, the ASRS also offers a long-term disability benefit.

Effective October 1, 1995, to comply with Internal Revenue Code requirements, liabilities associated with the long-term disability benefit was separated from the Plan. No assets were transferred to the LTD fund. Accordingly, the objectives of the funding method that the Board adopted for the LTD program have been:

- To produce a positive cash flow
- To maintain reasonably stable contribution rates
- To build up the assets gradually

As determined by the 2011 and 2010 actuarial reports, the LTD contribution rate is .49%, .26% for employees and .23% for employers. These rates are effective for FY 2012 and 2011.

## **Summary of Actuarial Method for Long-Term Disability Benefit**

The actuarial cost method changed, effective for the 2005 valuation, to the projected unit credit method. Assets are valued at market, less (or plus) an adjustment to reflect investment gains (or losses) over a 10-year period. This method applies to gains and losses incurred in fiscal 2006 and later years. The unfunded actuarial accrued liability is amortized over 15 years in level dollar payments.

<sup>1</sup> Subsequent to the completion of this actuarial valuation, the 50th Arizona State Legislature enacted legislation which retroactively reverted the contribution rate back to .48%, shared equally by employees and employers, as of July 1, 2011.

## SUMMARY OF THE BENEFIT PROVISIONS - PLAN AND HBS

The Arizona State Retirement Plan makes provision for the retirement, disability, and death and survivor benefits to all employees of the State, instrumentalities of the State and certain political subdivisions. The major provisions of the Plan may be summarized as follows:

### A. RETIREMENT BENEFITS

## 1. Normal Retirement Date (the earliest of the following):

- a) a member's sixty-fifth birthday,
- b) a member's sixty-second birthday and completion of at least ten years of credited service, or
- c) the first day immediately following the day that the sum of the member's age and his years of total credited service equal eighty for members hired before July 1, 2011 or for members hired on or after July 1, 2011, age 60 with 25 years of credited service or age 55 with 30 years of service.

### 2. Monthly Life Annuity

The product of a benefit multiplier (as determined below) and the member's best 36 month average compensation (in last 120 months) for members hired before July 1, 2011 and 60-month average compensation (in last 120 months) for members hired on or after July 1, 2011 multiplied by his or her years of total credited service. Members who commenced membership prior to 1984 can use a 60-month average and include additional types of compensation, if doing so produces a larger result.

Years of Credited Service	Benefit Multiplier
Less than 20	2.10%
20.0 to 24.99	2.15%
25.0 to 19.99	2.20%
30 or more	2.30%

### 3. Normal Retirement Benefits

The sum of the monthly life annuity and any prior service benefits to which the employee was entitled under the System.

### 4. Early Retirement

Age 50 with 5 or more years of credited service.

### 5. Early Retirement Benefits

If not eligible for normal retirement and at least age 50 with 5 years of total credited service, normal retirement benefit earned to the date of retirement, reduced according to the following table:

Years of																
Service						Α	ge a	t Dat	te of	Reti	reme	nt				
	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
Members F	lired [	3efore	July	1, 20	11											
5-10	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	88%	91%	94%	97%	100%
10-19	44%	49%	54%	59%	64%	69%	74%	79%	84%	89%	94%	97%	100%	100%	100%	100%
20+	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%	100%	100%	100%	100%	100%	100%
Members H	lired (	On or	After	July 1	, 201	1										
5-10	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	88%	91%	94%	97%	100%
10+	44%	49%	54%	59%	64%	69%	74%	79%	84%	89%	94%	97%	100%	100%	100%	100%

Provided, however, that if the member meets the Rule of 77 (but not the Rule of 80), the reduction will be 3% for each unit below 80 for members hired before July 1, 2011.

### 6. Normal Form of Benefit

Straight life annuity with cash refund feature payable monthly with benefits commencing on the day following the date of termination of employment.

### 7. Optional Forms

- a) joint and contingent annuity (with pop-up) with either 100%, 66-2/3% or 50% of the reduced retirement income payable for the life of the contingent annuitant upon the death of the retiring participant,
- b) period certain and life annuity (with pop-up) with either five, ten, or fifteen years of payments guaranteed, or
- c) a social security leveling option combined with any of the other forms of payment.

### 8. Minimum Benefit

The minimum monthly benefit payable to a retired member who is at least age 75 and who has 20 or more years of service is \$600.

## SUMMARY OF THE BENEFIT PROVISIONS - PLAN AND HBS (CONTINUED)

### **B. DISABILITY BENEFITS** (for disability after June 30, 1988)

### 1. Long-Term disability

Monthly benefit equal to two-thirds of monthly compensation, reduced by percentages of other income received payable commencing six months after date of disability until the earlier of:

- a) Date of cessation of total disability, or
- b) Normal retirement date.

This benefit is paid by a separate LTD plan.

### 2. Disability Payments if Member Remains Disabled Through Normal Retirement Date

Monthly benefit participant would have received if service had continued to normal retirement date assuming the participant's salary remained at the level it was at his or her date of disability, also provided that the amount of total credited service is limited to 30 years unless he or she had more than 30 years at date of disability.

### 3. The minimum monthly benefit payable to a disabled participant is \$50.00.

## C. DISABILITY BENEFITS (for disability before July 1, 1988)

### 1. Eligibility

Age 50 with 5 years of service.

#### 2. Benefit Amount

A life annuity that can be provided by the member's contribution account. Disability payments after normal or early retirement eligibility are reduced by the actuarial value of the disability payments made up to the date of normal or early retirement eligibility.

### D. PRE-RETIREMENT DEATH BENEFITS

### 1. Eligibility

Applicable if death occurs prior to retirement.

### 2. Benefit

Any one of the following, at the option of the beneficiary:

- a) a lump sum equal to the sum of (i) and (ii):
  - i) the sum of the member's member and employer balances, and
  - ii) the amount of the member's employee and employer accounts, along with supplemental credits, if any, transferred from the System to the Plan, with interest
- b) if (a) is greater than \$5,000, the beneficiary may elect to receive a monthly income for five or ten years certain and life thereafter which is actuarially equivalent to the amount in (a).

### 3. Death of an Active Member After 15 Years of Credited Service or After Eligibility for Early Retirement

Beneficiary receives a benefit in the form of a survivor annuity equal to the benefit that would have been payable to the beneficiary if the participant had retired on the date of his or her death and elected to receive an annuity payable in the form of joint and 100% survivor with the beneficiary named as the joint pensioner.

### E. VESTING OF BENEFITS

### 1. Vesting

A member is fully vested in his or her accrued benefit.

### 2. Benefits Upon Vesting

A fully vested member is entitled to either:

- a) the enhanced refund option for members hired before July 1, 2011 or for members terminated due to an Employer Reduction in Force or position elimination for members hired on or after July 1, 2011, or
- b) the retirement benefit payable at normal retirement earned to the date of member's termination.

The enhanced refund option allows members who terminate prior to eligibility for retirement to receive a refund of their member contributions with interest. In addition, if a member has at least five years of service, he or she is also entitled to a share of the employer contributions with interest. The share is 25% for members with five years of service and increases 15% for each additional year of service up to a maximum of 100% for ten or more years of service. The board reduced the interest rate to be credited on refund of contributions from 8% to 4%, effective June 30, 2005.

### F. RETIREE HEALTH INSURANCE PREMIUM SUPPLEMENT

### 1. Eligibility

Retirement or disability after 5 years of credited service and covered by an employer-sponsored group insurance program for which the retired or disabled member must pay part of the cost. Employees who elect the enhanced refund option are not eligible for this benefit.

### 2. Benefit

The benefit is payable only with respect to allowable health insurance premiums for which the participant is responsible. There is no benefit payable after the retiree dies. The maximum benefits for participants with 10 or more years of service are:

- a) with respect to premiums paid for retirees with member only coverage:
  - \$150 per month if the retiree is under age 65
  - \$100 per month if the retiree is 65 or over
- b) with respect to premiums paid for retirees with family coverage:
  - \$260 per month if the member and dependents are under age 65
  - \$170 per month if the member and dependents are 65 or over
  - \$215 per month if the member is over age 65 and the dependent is under age 65
  - \$215 per month if the member is under age 65 and the dependent is over age 65

For members with five to nine years of service, the benefits are the same dollar amounts as above multiplied by a vesting fraction equal to 10 percent for each completed year of service (i.e., 50 percent to 90 percent).

## G. AUTOMATIC COST OF LIVING ADJUSTMENT BASED ON EXCESS INVEST-**MENT EARNINGS**

### 1. Permanent Benefit Increase (PBI)

Retirees who have been retired one year and LTD members are eligible for a COLA up to a maximum of a 4% increase. The COLA is paid from a reserve of "Excess Investment Earnings." If there are no "Excess Investment Earnings" in reserve, then no COLA is paid.

### 2. Permanent Benefit Increase Enhancement

Provides retired members with at least ten years of service who have been retired five or more years an additional benefit. For each complete 5-year period the member has been retired an incremental benefit is paid if monies to pay the benefit are available. This benefit is funded by an interest credit of 8.0% of the reserve for future PBIs.

PBI and enhanced PBI benefits are reflected in the valuation as soon as they are awarded. Future PBI and enhanced PBI are not included in the valuation.

### H. EMPLOYEE AND EMPLOYER CONTRIBUTIONS

The contribution rate for the fiscal year beginning on July 1st is based on the results of the most recent actuarial valuation as of the last day of the preceding plan year. The member's contribution rate is equal to 53% of the total contribution rate. The employer's contribution rate is equal to 47% of the total contribution rate. The total contribution rate for fiscal year 2012 is 20.96 %, based on the 2010 actuarial valuation. The total contribution rate for fiscal year 2013 will be 21.80% based on this valuation. Interest is credited at 8.00%; however, interest is credited at 4% from July 1, 2005 for return of contributions upon termination for reasons other than retirement or death. 1

<sup>1</sup> Subsequent to the completion of this actuarial valuation, the 50<sup>th</sup> Arizona State Legislature enacted legislation which retroactively reverted the contribution rate percentage back to 50% for employees and 50% for employers, as of July 1, 2011.

## STATEMENT OF ACTUARIAL METHODS AND ASSUMPTIONS PLAN AND HBS

ADOPTED BY BOARD ACTION ON NOVEMBER 23, 2009 AND NOVEMBER 18, 2011 EFFECTIVE AS OF JUNE 30, 2011

## **A. Actuarial Assumptions**

### 1. Investment Yield Rate

8% per annum compounded annually, net of investment expenses

### 2. Mortality

The mortality assumption was chosen to be used from June 30, 2008 to June 30, 2012. The rates were projected to the middle point of this period and include an appropriate level of conservatism that reflects expected future mortality improvements.

### a) Pre-retirement

Assumption: 1994 GAM – Static, Projected to 2010 With Projection Scale AA, with no setback. Rates at representative ages are shown below:

Rat	tes of Mortality	(Active)
AGE	MALE PARTICIPANTS	FEMALE PARTICIPANTS
20	0.000373	0.000219
25	0.000563	0.000232
30	0.000739	0.000299
35	0.000785	0.000400
40	0.000943	0.000557
45	0.001280	0.000752
50	0.001929	0.001085
55	0.003255	0.002017
60	0.006162	0.004097
65	0.011600	0.007970
70	0.018633	0.012672
75	0.029696	0.019950
80	0.052813	0.035208
85	0.086903	0.061520
90	0.143432	0.110808

### b) Post-retirement

Assumptions: Non-Disabled rates are based on the 1994 GAM - Static, Projected to 2010 with Projection Scale AA with no setback. Disabled rates are based on the experience of other large public sector retirement systems and ASRS' own experience. Rates at representative ages are shown below.

		Rates o	f Mortality			
	Male Part	icipants	Female Participants			
AGE	NON-DISABLED	DISABLED	NON-DISABLED	DISABLED		
20	0.000373	0.051100	0.000219	0.027440		
25	0.000563	0.063540	0.000232	0.038300		
30	0.000739	0.058810	0.000299	0.053930		
35	0.000785	0.040920	0.000400	0.056980		
40	0.000943	0.034740	0.000557	0.037590		
45	0.001280	0.031360	0.000752	0.025700		
50	0.001929	0.031110	0.001085	0.022840		
55	0.003255	0.030860	0.002017	0.024605		
60	0.006162	0.033730	0.004097	0.026507		
65	0.011600	0.048250	0.007970	0.028555		
70	0.018633	0.055540	0.012672	0.030762		
75	0.029696	0.090010	0.019950	0.036143		
80	0.052813	0.146340	0.035208	0.046560		
85	0.086903	0.228520	0.061520	0.056647		
90	0.143432	0.313770	0.110808	0.068920		

### 3. Disability Rates

Ra	Rates of Decrement Due to Disability									
AGE	MALE PARTICIPANTS	FEMALE PARTICIPANTS								
20	0.000431	0.000551								
25	0.000479	0.000603								
30	0.000548	0.000760								
35	0.000822	0.001172								
40	0.001583	0.001583								
45	0.002519	0.002378								
50	0.003846	0.003649								
55	0.005786	0.005266								
60	0.008994	0.008185								

## STATEMENT OF ACTUARIAL METHODS AND ASSUMPTIONS - PLAN AND HBS (CONTINUED)

4. **Withdrawal Rates** (for causes other than death, disability or retirement)
Select and ultimate withdrawal rates are used. Rates at representative ages are shown below.

			Rates	of Deci	ement	Due t	o With	drawa			
				YE	ARS OF	SERVIC	ES				
AGE	0	1	2	3	4	5	6	7	8	9	10+
				ľ	MALE EM	PLOYEES	5				
20	0.2775	0.2050	0.1500	0.1250	0.1025	0.0925	0.0800	0.0700	0.0575	0.0525	0.1724
30	0.2775	0.2050	0.1500	0.1250	0.1025	0.0925	0.0800	0.0700	0.0575	0.0525	0.0763
40	0.2775	0.2050	0.1500	0.1250	0.1025	0.0925	0.0800	0.0700	0.0575	0.0525	0.0306
50	0.2775	0.2050	0.1500	0.1250	0.1025	0.0925	0.0800	0.0700	0.0575	0.0525	0.0209
60	0.2775	0.2050	0.1500	0.1250	0.1025	0.0925	0.0800	0.0700	0.0575	0.0525	0.0146
70	0.2775	0.2050	0.1500	0.1250	0.1025	0.0925	0.0800	0.0700	0.0575	0.0525	0.0243
				FE	MALE E	MPLOYE	ES .				
20	0.2775	0.2050	0.1500	0.1250	0.1025	0.0925	0.0800	0.0700	0.0575	0.0525	0.2900
30	0.2775	0.2050	0.1500	0.1250	0.1025	0.0925	0.0800	0.0700	0.0575	0.0525	0.1108
40	0.2775	0.2050	0.1500	0.1250	0.1025	0.0925	0.0800	0.0700	0.0575	0.0525	0.0323
50	0.2775	0.2050	0.1500	0.1250	0.1025	0.0925	0.0800	0.0700	0.0575	0.0525	0.0225
60	0.2775	0.2050	0.1500	0.1250	0.1025	0.0925	0.0800	0.0700	0.0575	0.0525	0.0119
70	0.2775	0.2050	0.1500	0.1250	0.1025	0.0925	0.0800	0.0700	0.0575	0.0525	0.0194

### 5. Salary Scales

A select and ultimate salary scale made up of a merit component and general salary increase component as follows:

Years of Service	Merit Component	Total Salary Increase <sup>1</sup>
1	5.00%	9.00%
2	4.00%	8.00%
3	2.50%	6.50%
4	1.80%	5.80%
5	1.40%	5.40%
6	1.25%	5.25%
7	1.00%	5.00%
8	0.80%	4.80%
9	0.75%	4.75%
10	0.50%	4.50%
11 to 19	0.25%	4.25%
20 or more	0.00%	4.00%

<sup>&</sup>lt;sup>1</sup> Total salary increase rate = wage inflation (or growth) rate (3.25%) + productivity increase rate (0.75%) + merit component<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Wage inflation assumption was lowered 0.50% pursuant to Board action on November 18, 2011.

### 6. Retirement Age

Select and ultimate retirement rates are used. Rates at representative ages and years of service are shown below:

		Rates o	of Decre	nent Due	e to Reti	rement			
	YEARS OF SERVICE - ALL MEMBERS								
AGE	0-4	5	6-9	10-19	20	25	30	31+	
50	0.000	0.100	0.050	0.050	0.070	0.087	0.350	0.200	
55	0.000	0.100	0.050	0.050	0.070	0.250	0.350	0.136	
60	0.000	0.090	0.090	0.090	0.350	0.250	0.350	0.240	
62	0.000	0.150	0.150	0.330	0.350	0.250	0.350	0.330	
65	0.300	0.300	0.300	0.300	0.350	0.250	0.350	0.300	
70	0.220	0.220	0.220	0.220	0.350	0.250	0.350	0.220	

Deferred vested members are assumed to retire at normal retirement age.

### 7. Future Retirees Eligible for the Health Insurance Premium Supplement

It is assumed that 70% of future retirees will be eligible to receive the post-retirement health insurance premium supplement and that 35% of those retirees will be eligible for the dependent premium supplement.

### 8. Proportion of Vested Term Members Who Will Not Withdraw Their Contributions

It is assumed that active members who terminate (prior to eligibility for retirement) and deferred vested members who have already terminated will choose to receive the enhanced refund option if the value of the enhanced refund option is greater than the present value of the deferred benefit. Otherwise, the members are assumed to elect to receive the deferred benefit. If the member is assumed to elect the enhanced refund option, then it is also assumed that the member forfeits the health insurance premium supplement.

Members who terminate eligible for early retirement are assumed to commence payments.

### 9. Spouse Assumptions

We assume that 100% of the members are married. We also assume that the husband is three years older than the wife.

### 10. Modified Cash Refund Assumption

We assume that members who elect a single life annuity will receive accumulated benefit payments equal to their contributions after three years of being in receipt.

### 11. 415 (b) Limits

415(b) limits are not applied in the Plan valuation because there is an excess plan that pays benefits above the 415(b) limit.

## STATEMENT OF ACTUARIAL METHODS AND ASSUMPTIONS - PLAN AND HBS (CONTINUED)

### 12. Optional Form Load

A load of 0.087% has been added to the non-retired 401(a) liabilities to account for the election of optional forms other than a single life annuity.

### **B. Actuarial Value of Assets**

The actuarial value of assets is equal to the market value of assets less a ten-year phase in (five-year phase-in prior to June 30, 2002) of the Excess (Shortfall) between expected investment return and actual income on the market value of assets. There is no corridor around market value within which the actuarial value is required to fall.

## C. Actuarial Funding Method

Costs are determined under the projected unit credit method. The unfunded actuarial accrued liability is funded on a level dollar basis over the period of time described in Section 38-737. For the actuarial valuation as of June 30, 2011, the period is 30 years.

### D. Data for Valuation

In preparing the actuarial valuation as of June 30, 2011, the actuary has relied on data and assets provided by the staff of the Arizona State Retirement System. While not verifying the data at their source, the actuary has performed tests for consistency and reasonableness.

## **Schedule of Plan Active Member Valuation Data**

Last 6 Years

	Contributing Active Members								
VALUATION AS OF JUNE 30	NUMBER	ANNUAL PAYROLL	ANNUAL AVERAGE PAY	INCREASE IN AVERAGE PAY					
2006	217,676	8,311,869,615	38,185	0.9%					
2007	224,001	9,161,803,726	40,901	7.1%					
2008	226,415	9,708,352,896	42,879	4.8%					
2009	222,515	9,834,810,345	44,198	3.1%					
2010	213,530	9,419,951,810	44,115	-0.2%					
2011	208,939	9,060,630,604	43,365	-1.7%					

### Schedule of Plan Retirees Added to and Removed From Rolls

Last 6 Years

Valuation as of June 30	Retirants and Beneficiaries Added to Rolls		Retirants and Beneficiaries Removed from Rolls		Beneficia	rants and aries Rolls End of Year	% Increase in Annual Allowance	Average Annual Allowances
	NO.	ANNUAL ALLOWANCES*	NO.	ANNUAL ALLOWANCES	NO.	ANNUAL ALLOWANCES 1		
2006	7,143	170,867,676	2,498	32,717,257	78,498	1,474,713,766	10.3%	18,787
2007	7,393	144,536,847	2,297	30,532,270	83,594	1,588,718,343	7.7%	19,005
2008	7,784	148,885,733	2,422	33,418,979	88,956	1,704,185,097	7.3%	19,158
2009	7,958	153,218,995	2,490	30033184.0	94,424	1,827,370,908	7.2%	19,353
2010	9,360	176,419,906	2,477	35,666,261	101,307	1,968,124,553	7.7%	19,427
2011	9,288	179,066,507	2,599	38,511,310	107,996	2,108,679,750	7.1%	19,526

<sup>&</sup>lt;sup>1</sup> Cost of Living Increases included here.

## Schedule of HBS Retirees Added to and Removed From Rolls

Last 3 Years<sup>2</sup>

Valuation as of June 30	Retirants and Beneficiaries Added to Rolls		Retirants and Beneficiaries Removed from Rolls		Retirants and Beneficiaries Rolls End of Year			Increase in Annual Allowance	Average Annual llowances			
	NO.	Αl	ANNUAL LOWANCES	NO.	Αl	ANNUAL LOWANCES	NO.			NNUAL DWANCES		
2009	N/A		N/A	N/A		N/A	54,753		\$ 82	2,222,248	N/A	\$ 1,502
2010	5,689	\$	10,358,376	2,647	\$	6,487,680	57,795		86	6,092,944	4.7%	1,490
2011	6,047	\$	10,459,392	3,199	\$	7,707,744	60,643	3	88	8,844,592	3.2%	1,465

<sup>&</sup>lt;sup>2</sup> Information not available for prior years.

<sup>&</sup>lt;sup>3</sup> Includes 679 System members receiving HBS benefits and 1,705 members receiving LTD benefits and HBS benefits.

## Schedule of Unfunded (Over) Accrued Liabilities (Plan and HBS combined)

Last 10 Years

Year Ended June 30	Aggregate Accrued Liabilities Plan	Actuarial Value of Net Plan Assets	Assets as a % of Accrued Liabilities Plan	Unfunded (overfunded) Accrued Liabilities Plan (UAL)	Active Member Payroll	UAL as a % of Active Member Payroll
2002	22,586,920,751	23,623,015,969	105%	(1,036,095,218)	6,989,339,000	-14.80%
2003	24,303,639,447	23,516,898,511	97%	786,740,936	7,296,827,756	10.80%
2004	25,918,329,505	23,642,904,763	91%	2,275,424,742	7,485,590,038	30.40%
2005	27,942,601,285	23,836,519,123	85%	4,106,082,162	8,032,457,947	51.10%
2006	29,696,631,262	24,851,522,776	84%	4,845,108,486	8,311,869,615	58.30%
2007	31,995,671,426	26,476,687,905	83%	5,518,983,521	9,161,803,726	60.20%
2008	33,870,864,745	27,851,825,730	82%	6,019,039,015	9,708,352,896	62.00%
2009	35,742,538,572	28,360,159,450	79%	7,382,379,122	9,834,810,345	75.10%
2010	37,557,862,066	28,823,144,688	77%	8,734,717,378	9,419,951,810	92.70%
2011	38,555,369,013	29,230,960,267	76%	9,324,408,746	9,060,630,604	102.90%

## Solvency Test (Plan)

Last 10 Years

		Aggregate	Accrued Liabil	ities for:							
Year End	ACTIVE MEMBER RETIREES ear End CONTRIBUTIONS BENEFICIA			ACTIVE MEMBER RETIREES AND FINANCED A				Net Assets Available for Benefits	Portion of Accrued Liabilities Covered by Net Assets Available for Benefits		
June 30		(1)	(2)	(3)		(1)	(2)	(3)			
2002		3,046,008,125	10,141,767,789	8,097,396,037 <sup>1</sup>	22,641,693,322	100%	100%	100.0%			
2003		3,110,690,039	10,911,141,534	8,912,910,871	22,572,007,289	100%	100%	95.9%			
2004		3,407,611,954	11,888,766,685	9,209,865,919 <sup>1</sup>	22,659,396,325	100%	100%	79.9%			
2005		3,717,945,957	12,970,620,699	9,797,630,212	22,808,290,293	100%	100%	62.5%			
2006		4,168,243,157	13,998,186,812	10,025,660,085	23,766,572,590	100%	100%	55.9%			
2007		5,533,036,906	15,191,806,375	9,665,632,410	25,309,888,063	100%	100%	47.4%			
2008		6,256,502,949	16,357,773,654	9,810,200,566	26,612,440,139	100%	100%	40.8%			
2009		7,054,925,502	17,455,947,713	9,779,242,657	27,093,788,614	100%	100%	26.4%			
2010	2	7,704,328,621	19,246,476,421	9,121,714,675	27,571,999,406	100%	100%	6.8%			
2011		8,374,149,814	20,541,081,742	8,135,947,783	27,983,517,225	100%	95.5%	0.0%			

<sup>&</sup>lt;sup>1</sup> 401(a) liabilities for 2006 and earlier include 401 (h) liabilities for inactive members.

<sup>&</sup>lt;sup>2</sup> 2010 and subsequent years results include System liabilities and assets for members who retired or will retire on or after July1, 1981.

## **Solvency Test (HBS)**

Last 10 Years

	Aggregate	Accrued Liabili	ties for:					
Year End	ACTIVE MEMBER CONTRIBUTIONS	RETIREES AND BENEFICIARIES	ACTIVE MEMBERS (EMPLOYER FINANCED PORTION)	Net Assets Available for Benefits			overed by Available	
June 30	(1)	(2)	(3)		(1)	(2)	(3)	
2002	-	455,596,600	846,152,200 <sup>1</sup>	981,322,647	100%	100%	62.1%	
2003	-	517,510,480	851,386,523 <b>1</b>	944,891,222	100%	100%	50.2%	
2004	-	533,183,961	878,900,986 <sup>1</sup>	983,508,438	100%	100%	51.2%	
2005	-	552,285,029	904,119,388 <sup>1</sup>	1,028,228,830	100%	100%	52.6%	
2006	-	578,560,443	925,980,765 <sup>1</sup>	1,084,950,186	100%	100%	54.7%	
2007	-	598,088,408	1,007,107,327	1,166,799,842	100%	100%	56.5%	
2008	-	619,808,594	826,578,982	1,239,385,591	100%	100%	75.0%	
2009	-	627,536,754	824,885,946	1,266,370,836	100%	100%	77.4%	
2010	-	652,876,059	832,466,290	1,251,145,282	100%	100%	71.9%	
2011	-	669,593,178	834,596,496	1,247,433,042	100%	100%	69.2%	

 $<sup>^{1}</sup>$  HBS Liabilities for 2006 and earlier are included in Plan liabilities for inactive members.

## **Schedule of Recommended vs. Actual Plan Contributions**

Last 10 Years

Year Ended June 30	Active Member Payroll	Employee Contributions	Employer Retirement Contribution Rate - Actual	Actuary Recommended Contribution
2002	6,989,000,000	135,274,945	2.00%	2.00%
2003	7,297,000,000	142,356,325	5.20%	5.20%
2004	7,486,000,000	377,436,100	5.20%	5.20%
2005	8,032,000,000	403,269,191	5.20%	5.20%
2006	8,312,000,000	570,581,044	6.90%	1 7.75% <b>1</b>
2007	9,162,000,000	766,624,734	8.60%	<b>1</b> 7.75% <b>1</b>
2008	9,708,000,000	857,502,851	9.10%	9.10%
2009	9,835,000,000	844,405,884	8.95%	8.95%
2010	9,420,000,000	808,814,419	9.00%	9.00%
2011	9,061,000,000	833,205,706	9.60%	9.60%

<sup>&</sup>lt;sup>1</sup> The 7.75% rate was determined in the 2004 valuation and would have applied to the 2006/2007 biennium. The Legislature adopted a stairstep approach to increasing contribution rates and set the rate at 6.9% for fiscal year 2006 and 8.6% for fiscal year 2007.

## **Analysis of Financial Experience for the Plan**

Last 10 Years (Dollars in Millions)

	Unfunded Actuarial	Normal								
Year	Liability	Cost for		Interest	On					Gain
Ended	(UAAL)	the	Contributions	at 8%	Normal	_		Expected	Actual	(Loss) for
June 30	Prior Year	Year	for the Year	on UAAL	Cost	Contributions	Total	UAAL	UAAL	the Year <sup>1</sup>
2002	(2,846.40)	701.14	(317.73)	(227.71)	56.09	(12.71)	(184.33)	(2,647.32)	(1,356.52)	(1,290.80)
2003	(1,356.52)	781.41	(371.27)	(108.52)	62.51	(14.85)	(60.86)	(1,007.24)	362.74	(1,369.98)
2004	362.74	900.43	(786.31)	29.02	72.03	(31.45)	69.60	546.46	1,846.85	(1,300.39)
2005	1,846.85	958.24	(861.35)	147.75	76.66	(34.45)	189.95	2,133.69	3,677.91	(1,544.22)
2006	3,677.91	1,023.15	(1,171.73)	294.23	81.85	(46.87)	329.22	3,858.54	4,425.52	(566.98)
2007	4,425.52	1,116.57	(1,527.70)	354.04	89.33	(61.11)	382.26	4,396.65	5,080.59	(683.94)
2008	5,080.59	1,165.17	(1,616.67)	406.45	93.21	(64.67)	434.99	5,064.08	5,812.04	(747.96)
2009	5,812.04	1,205.10	(1,598.33)	464.96	96.41	(63.93)	497.44	5,916.24	7,196.33	(1,280.08)
2010	7,196.33	1,234.67	(1,571.82)	575.71	98.77	(62.87)	611.61	7,470.79	8,500.52	(1,029.73)
2011	8,500.52	1,215.14	(1,619.79)	680.04	97.21	(64.79)	712.46	8,808.33	9,067.66	(259.33)

<sup>&</sup>lt;sup>1</sup> Gain/Loss includes assumption and plan changes.

## **Analysis of Financial Experience for HBS**

Last 10 Years (Dollars in Millions)

Year Ended June 30	Unfunded Actuarial Liability (UAAL) Prior Year	Normal Cost for the Year	Contributions for the Year	Interest at 8% on UAAL	On Normal Cost	On Contributions	Total	Expected UAAL	Actual UAAL	Gain (Loss) for the Year
2002	259.77	45.77	(4.04)	20.78	3.66	(0.16)	24.28	325.78	320.42	5.36
2003	320.42	50.32	(4.26)	25.63	4.03	(0.17)	29.49	395.97	424.00	(28.03)
2004	424.00	50.35	(79.66)	33.92	4.03	(3.19)	34.76	429.46	428.57	0.89
2005	428.57	51.98	(85.35)	34.29	4.16	(3.41)	35.03	430.23	428.17	2.06
2006	428.17	52.31	(93.46)	34.25	4.18	(3.74)	34.70	421.72	419.59	2.13
2007	419.59	55.04	(103.47)	33.57	4.40	(4.14)	33.83	404.99	438.39	(33.40)
2008	438.39	53.73	(99.03)	35.07	4.30	(3.96)	35.41	428.50	207.00	221.50
2009	207.00	46.38	(90.48)	16.56	3.71	(3.62)	16.65	179.55	186.05	(6.50)
2010	186.05	41.88	(59.39)	14.88	3.35	(2.38)	15.85	184.39	234.20	(49.81)
2011	234.20	40.28	(51.05)	18.74	3.22	(2.04)	19.92	243.35	256.75	(13.40)

Values shown for valuation dates on or after June 30, 2010, for the above two schedules, include System assets and liabilities for members who retired or will retire on or after July 1, 1981.

## **History of Contribution Rates**

Fiscal Year	Calculat	ed Rates	Actua	l Rates	Total	Rate
Beginning July 1	MEMBER	<b>EMPLOYER</b>	MEMBER	EMPLOYER	CALCULATED	ACTUAL
1980	7.00%	6.28%	7.00%	7.00%	13.28%	14.00%
1981	7.00%	6.29%	7.00%	7.00%	13.29%	14.00%
1982	7.00%	5.79%	7.00%	7.00%	12.79%	14.00%
1983	7.00%	6.04%	7.00%	7.00%	13.04%	14.00%
1984	6.27%	6.27%	6.27%	6.27%	12.54%	12.54%
1985	5.67%	5.67%	5.67%	5.67%	11.34%	11.34%
1986	5.53%	5.53%	5.53%	5.53%	11.06%	11.06%
1987	5.16%	5.16%	4.00%	4.00%	10.32%	8.00%
1988	5.09%	5.09%	5.09%	5.09%	10.18%	10.18%
1989	4.69%	4.69%	2.00%	2.00%	9.38%	4.00%
1990	3.82%	3.82%	3.82%	3.82%	7.64%	7.64%
1991	3.60%	3.60%	3.60%	3.60%	7.20%	7.20%
1992	3.59%	3.59%	3.59%	3.59%	7.18%	7.18%
1993	4.09%	4.09%	3.14%	3.14%	8.18%	6.28%
1994	3.75%	3.75%	3.75%	3.75%	7.50%	7.50%
1995	3.95%	3.95%	3.36%	3.36%	7.90%	6.72%
1996	3.20%	3.20%	3.20%	3.20%	6.40%	6.40%
1997	3.05%	3.05%	3.05%	3.05%	6.10%	6.10%
1998	2.85%	2.85%	2.85%	2.85%	5.70%	5.70%
1999	2.17%	2.17%	2.17%	2.17%	4.34%	4.34%
2000	2.73% <sup>1</sup>	2.73% <sup>1</sup>	2.17%	2.17%	5.46% <b>1</b>	4.34%
2001	1.92%	1.92%	2.00%	2.00%	3.84%	4.00%
2002	3.86% <sup>1</sup>	3.86% <sup>1</sup>	2.00%	2.00%	7.72% <sup>1</sup>	4.00%
2003	5.20%	5.20%	5.20%	5.20%	10.40%	10.40%
2004	6.96% <sup>1</sup>	6.96% <b>1</b>	5.20%	5.20%	13.92% <sup>1</sup>	10.40%
2005	7.75%	7.75%	6.90% <sup>2</sup>	6.90% <sup>2</sup>	15.50%	13.80% <sup>2</sup>
2006	8.70% <sup>1</sup>	8.70% <sup>1</sup>	8.60% <sup>2</sup>	8.60% <sup>2</sup>	17.40% <sup>1</sup>	17.20% <sup>2</sup>
2007	9.10%	9.10%	9.10%	9.10%	18.20%	18.20%
2008	8.94%	8.94%	8.95%	8.95%	17.88%	17.90%
2009	9.00%	9.00%	9.00%	9.00%	18.00%	18.00%
2010	9.58%	9.58%	9.60%	9.60%	19.15%	19.20%
2011 <b>3, 4, 5</b>	11.13%	9.87%	11.13%	9.87%	20.96%	21.00%
2012 <b>3, 4, 5</b>	11.55%	10.25%	11.55%	10.25%	21.80%	21.80%

<sup>&</sup>lt;sup>1</sup> Hypothetical Rate. The actual contribution rate was set by the prior year valuation.

<sup>&</sup>lt;sup>2</sup> Legislation action has fixed the rates for fiscal 2006and 2007 at 6.9% and 8.6% respectively.

<sup>&</sup>lt;sup>3</sup> Includes System liabilities and assets for members who retired and will retire on or after July 1, 1981. Reflects the change in contribution responsibility from 50% employees and 50% employers to 53% employees and 47% employers.

<sup>&</sup>lt;sup>4</sup> Reflects the change in contribution responsibility from 50% employees and 50% employers to 53% employees and 47% employers.

<sup>&</sup>lt;sup>5</sup> Subsequent to the completion of this actuarial valuation, the 50th Arizona State Legislature enacted legislation which retroactively reverted the contribution rate percentage back to 50% for employees and 50% for employers, as of July 1, 2011.

## **ACTUARIAL CERTIFICATION – LTD**



## A Xerox Company

January 20, 2012

Retirement Board Arizona State Retirement System 3300 North Central Avenue 14<sup>th</sup> Floor Phoenix, AZ 85012

### Valuation of the ASRS Long Term Disability Program as of June 30, 2011

Dear Retirement Board Members:

We certify that the information contained in the attached 2011 actuarial valuation report is accurate and fairly presents the actuarial position of the Arizona State Retirement System Long Term Disability Program (the LTD Program) as of June 30, 2011.

We have made all calculations for this report in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, the report's results comply with the requirements of the Arizona Constitution and statutes and, where applicable, the Internal Revenue Code, the Employee Retirement Income Security Act of 1974 (ERISA), and the Statements of the Governmental Accounting Standards Board. The undersigned actuaries are independent. They are both Enrolled Actuaries, members of the American Academy of Actuaries and one is a Fellow and one is an Associate of the Society of Actuaries. Both are experienced in performing valuations for large public retirement systems and are fully qualified to provide actuarial services to the State of Arizona.

### **Actuarial Valuations**

The primary purpose of the valuation report is to determine the required member and employer contribution rates, to describe the current financial condition of the LTD Program, and to analyze changes in the LTD Program's condition. In addition, the report provides information that ASRS requires for its Comprehensive Annual Financial Report and it summarizes census data.

Valuations are performed annually as of June 30 which is the last day of both the LTD Program year and ASRS' fiscal year.

Tabor Center, 1200 17th Street, Suite 1200 • Denver, CO 80202 720.359.7700 • 720.359.7701 (fax)

Retirement Board January 20, 2012 Page 2

### **Funding Objectives**

The actuarial valuation calculates the contribution rates payable by members and participating employers. These rates, when applied to payroll, yield contribution amounts sufficient to fund the normal cost plus the amortization of unfunded actuarial accrued liability over a rolling 15-year period. Contribution rates are set annually, based on the valuation of the preceding year. The rate calculated in this report (0.49% in total) will apply in the fiscal year beginning July 1, 2012. The LTD program is meeting its funding objectives. 1

### **Experience Studies**

Most of the assumptions of the LTD program are also assumptions of the ASRS defined benefit plan (the Plan). The actuary performs experience studies for ASRS every five years. The most recent experience analysis was completed in the first quarter of 2008 using experience from July 1, 2002 to June 30, 2007. Revised actuarial assumptions were approved and implemented for the June 30, 2008 valuation. Further revised actuarial assumptions were approved and implemented for the June 30, 2009 valuation and the June 30, 2011 valuation.

### **Benefit Provisions**

There have been no changes in benefit provisions since the last valuation.

The terms of the LTD Program are summarized on pages 13 to 15 of this report. There is no provision for LTD benefits to increase for cost-of-living adjustments.

### **Assumptions and Methods**

As a result of the experience analysis conducted on actual plan experience from July 1, 2002 to June 30, 2007, revised pre- and post-retirement mortality assumptions were adopted for the June 30, 2008 valuation. Further revised actuarial assumptions were adopted by ASRS for the June 30, 2009 valuation. Rates of retirement, rates of disability and rates of withdrawal were updated to rates recommended as a result of the last experience analysis. A revised salary scale was adopted by ASRS for the June 30, 2011 valuation. The wage inflation rate was decreased by 0.5%.

The actuary originates the assumptions, in consultation with the ASRS Director and other ASRS staff members, and recommends the assumptions to the Board which makes the ultimate decision on which assumptions and methods to use.

The Board elected to use the projected unit credit method. Under this method, actuarial gains (or losses) are subtracted from (or added to) the unfunded actuarial accrued liability.

<sup>1</sup> Subsequent to the completion of this actuarial valuation, the 50<sup>th</sup> Arizona State Legislature enacted legislation which retro actively reverted the contribution rate back to 50% for employees and 50% for employers. This has resulted in a revision of the total LTD rate to .48% beginning July 1, 2012.



## **ACTUARIAL CERTIFICATION - LTD** (CONTINUED)

Retirement Board January 20, 2012 Page 3

### Data

ASRS staff and Sedgwick (the administrator of the LTD program) supplied census data for participants as of June 30, 2011. We have not audited these data, but have examined them for reasonableness and consistency with the prior year's data. ASRS staff also supplied asset information.

### Trend Data and Supporting Schedules

ASRS prepared all trend data schedules in the financial section of ASRS' Comprehensive Annual Financial Report (CAFR). ASRS also prepared all supporting schedules in the actuarial section of the CAFR.

We look forward to discussing this report with you at your convenience.

Sincerely,

Charles E. Chittenden, FSA, EA, MAAA Principal and Consulting Actuary

Charles E. Chittenter

Douglas J. Fiddler, ASA, EA, MAAA Director, Retirement Actuary

**buck**consultants

## **GENERAL ACTUARIAL INFORMATION - LTD**

Effective October 1, 1995, to comply with Internal Revenue Code requirements, liabilities associated with the long-term disability benefit was separated from the Plan. No assets were transferred to the LTD fund. Accordingly, the objectives of the funding method that the Board adopted for the LTD program have been:

- To produce a positive cash flow
- To maintain reasonably stable contribution rates
- To build up the assets gradually

The following table summarizes the key results of the June 30, 2011, actuarial valuation of the Arizona State Retirement System (ASRS) Long Term Disability (LTD) Program.

Amount in 000's	2010	2011
Normal Cost	\$ 30,456	28,165
Actuarial Accrued Liability	477,266	455,695
Valuation Assets	319,308	307,537
Funded Status on Valuation Assets	66.90%	67.49%
Market Value of Assets	250,378	280,856
Funded Status on Market Value of Assets	52.46%	61.63%
Unfunded Actuarial Accrued Liability (UAAL)	157,958	148,158
Past Service Cost	17,087	16,027
Annual Required Contribution (ARC)	47,544	44,192
Payroll	9,419,952	9,060,631
ARC as % of payroll for each employer	0.23%	0.23% <sup>1</sup>
ACR as % of payroll for each employee	0.26%	0.26%
UAAL as % of payroll	1.70%	1.60%

The following chart will serve to indicate some of the more important statistics regarding the long-term disability program.

Number of LTD Open Claim Members	4,609
Average Age	54.3
Average Monthly Benefit	\$ 1,269

<sup>&</sup>lt;sup>1</sup> Subsequent to the completion of this actuarial valuation, the 50<sup>th</sup> Arizona State Legislature enacted legislation which retro actively reverted the contribution rate back to 50% for employees and 50% for employers, as of July 1, 2011.

## **SUMMARY OF BENEFIT PROVISIONS - LTD**

The Arizona State Retirement System (ASRS) Long Term Disability (LTD) Program began on July 1, 1995. The program covers ASRS LTD Program participants who become disabled on or after July 1, 1995. ASRS members who were receiving LTD benefits prior to July 1, 1995, were transferred to the program on October 1, 1995. Contributions began July 1, 1995, and are now paid 47% by employers and 53% by active members.<sup>1</sup>

Below we have summarized the main provisions of the LTD Program.

**Effective Date:** The plan was established effective July 1, 1995.

**Participation:** To be eligible, members must be actively at work and engaged to work at least 20 weeks in a fiscal year and at least 20 hours each week. Coverage is contingent on payment of premiums.

**Contributions:** Members are required to contribute to the LTD Program in accordance with the schedule ratified each year by the Board. The FY13 rate is 0.26% of payroll. Employers have equal contributions<sup>1</sup>, and the Board allocates all contributions to the LTD Program's depository.

**Qualifications for Benefit:** Monthly benefits are not payable until a member has been totally disabled for a period of six consecutive months. Monthly benefits are not payable to a member whose disability is due to the following:

- 1. an intentionally self-inflicted injury
- 2. war, whether declared or not
- 3. an injury incurred while engaged in a felonious criminal act or enterprise
- 4. for employees hired on or after July 1, 1998, any injury, sickness, or pregnancy for which you received medical treatment within three months prior to the effective date coverage began under the LTD Income Plan. Except for any employee who becomes an active contributing member on or after July 1, 2008 and receives medical treatment within six months prior to the date coverage begins under the LTD Income Plan. This exclusion does not apply to a disability commencing after a person has been an active contributing member of a participating employer for twelve continuous months.

Monthly benefits are not payable to a member who is receiving retirement benefits from ASRS.

**Totally Disabled:** A member is considered totally disabled if:

- 1. during the first thirty months of a period of disability, the member is unable to perform all duties of the position held by the member when the member became totally disabled; and
- 2. for a member who has received monthly benefits for 24 or more total months, that a member is unable to perform any work for compensation or gain for which the member is reasonably qualified by education, training, or experience.

<sup>&</sup>lt;sup>1</sup> Subsequent to the completion of this actuarial valuation, the 50<sup>th</sup> Arizona State Legislature enacted legislation which retro actively reverted the contribution rate back to 50% for employees and 50% for employers, as of July 1, 2011.

Benefit Amount: Benefits payable from the plan equal two-thirds of a member's monthly compensation at the time of disability. Benefits are offset by:

- 1. 85% of social security disability benefits that the member or the member's dependents are eligible to receive;
- 2. 85% of social security retirement benefits that the member is eligible to receive;
- 3. all of any worker's compensation benefits;
- 4. all of any payments for a veteran's disability if both of the following apply:
  - a) the veteran's disability payment is for the same condition or a condition related to the condition currently causing the member's total disability;
  - b) the veteran's disability is due to service in the armed forces of the United States;
- 5. all of any other benefits by reason of employment that are financed partly or wholly by an employer, including payments for sick leave; and
- 6. 50% of any salary, wages, commissions, or similar pay that the member receives or is entitled to receive from any gainful employment in which the member engages.

**Benefit Period:** Monthly benefits cease to be payable to a member at the earliest of the following:

- 1. the date the member ceases to be totally disabled;
- 2. the date the member ceases to be under the direct care of a doctor or refuses to undergo any medical examination requested by the company selected by the Board to administer the LTD Program;
- 3. the date the member withdraws employee contributions with interest and ceases to be a member; and
- 4. the later of following:
  - a) the member's normal retirement date;
  - b) the month following 60 months of payments if disability occurs before age 65;
  - c) the month following attainment of age 70 if disability occurs at age 65 or after but before age 69;
  - d) the month following twelve-months of payments if disability occurs at or after age 69.

**Expenses:** Expenses associated with the operation of the LTD Program are payable by the LTD Program. The fee schedule is as follows:

> Administrative: \$13,000 / month New Claims Fee: \$420 / claim Claims Management: \$29 / claim / month

Changes in Plan Terms Since the Prior Valuation: The contribution allocation between employees and employers has been changed from 50%/50% to 53% for employees and 47% for employers.

<sup>&</sup>lt;sup>1</sup> Subsequent to the completion of this actuarial valuation, the 50<sup>th</sup> Arizona State Legislature enacted legislation which retro actively reverted the contribution rate back to 50% for employees and 50% for employers, as of July 1, 2011.

## STATEMENT OF ACTUARIAL METHODS AND ASSUMPTIONS - LTD

We have prepared this report on our actuarial valuation of the assets and liabilities of the Arizona State Retirement System LTD Program as of June 30, 2011, in accordance with generally accepted actuarial principles, and with the requirements of GASB #43.

The actuarial assumptions and methods on which our valuation has been based are, in our opinion, appropriate for the purpose of our current valuation. The ASRS Board has adopted the assumptions used in this valuation, except for the wage inflation assumption, in its meeting on November 23, 2009. The wage inflation assumption (a 0.50% decrease from the previous year's assumption) was adopted by the ASRS Board in it meeting on November 18, 2011.

We have not audited the data or the asset information used in this valuation, but believe them to be complete and accurate.

### **Summary of Actuarial Methods**

The actuarial cost method is the projected unit credit method. Assets are valued at market, less (or plus) an adjustment to reflect investment gains (or losses) over a 10-year period starting as of June 30, 2006. The unfunded actuarial accrued liability is amortized over a rolling 15 year period using a level dollar amortization method.

### **Summary of Actuarial Assumptions**

The assumptions unique to the LTD valuation were as follows:

### 1. Discount Rate

8% per annum, net of investment expenses

### 2. Rates of Termination of Claims in Payment Due to Death or Recovery

1987 Commissioners' Group Long Term Disability Valuation Table (1987 CGDT), applicable to plans with a sixmonth elimination period.

### 3. Disability Incidence Rates for Active Members

Age and sex based rates as developed for the Plan. Rates at representative ages are given below:

I	Age	Males	Females
	20	0.04%	0.06%
	30	0.05%	0.08%
	40	0.16%	0.16%
	50	0.38%	0.36%
	60	0.90%	0.82%

### 4. Offsets for Disabled Members

We are assuming that the amounts the administrator reports as offsets (other than overpayment offsets) will continue to apply to each member's benefit until that benefit expires. For members within first three years of receipt of LTD benefits, we have adjusted benefit amounts to reflect future offsets, assuming 90% of members will have offsets after 3 years.

We assume that these offsets reduce the gross benefits by 40%. We also assume that the weighted average months of overpayment are equal to 19 months.

These assumptions are reviewed annually.

### 5. Offsets for Active Members

We assume that LTD Program benefits, after all applicable offsets are 60% of the benefits before the offsets. This is the percentage that applies for currently disabled members and is based on the experience study as of June 30, 2007.

### 6. Administrative Expense Reserve for Active Members

2.8% of projected claim liabilities. This is the percentage that applies for currently disabled members.

### 7. Elimination Period

A 3% reduction in liabilities is applied to reflect the six-month elimination period for benefits.

### 8. Changes in Assumptions Since the Prior Valuation

The wage inflation rate was decreased by 0.50%.

Years of Service	Previous Salary Scale	Current Salary Scale
1	9.50%	9.00%
2	8.50%	8.00%
3	7.00%	6.50%
4	6.30%	5.80%
5	5.90%	5.40%
6	5.75%	5.25%
7	5.50%	5.00%
8	5.30%	4.80%
9	5.25%	4.75%
10	5.00%	4.50%
11 to 19	4.75%	4.25%
20 or more	4.50%	4.00%

All other assumptions are the same as those used in the valuation of the Plan.

## LTD SCHEDULES

## Schedule of Benefit Recipients Added to and Removed from Rolls

Last 6 Years

Valuation Beneficiari		Retirants and Beneficiaries Added to Rolls		Retirants and Beneficiaries Removed from Rolls		ficiaries Beneficiaries		Beneficiarie		eficiaries	% Increase in Annual	1	verage Annual
June 30	NO.		ANNUAL <sup>1</sup> LOWANCES	NO.	A	ANNUAL <sup>2</sup> LLOWANCES	NO.	D. ANNUAL <sup>1</sup> ALLOWANCES		Allowance	Allowances		
2006	840	\$	16,021,268	761	\$	12,191,399	5,018	\$	69,413,433	5.8%	\$	13,833	
2007	800		15,958,305	747		13,060,111	5,071		72,311,627	4.2%		14,260	
2008	640		12,610,021	829		16,270,484	4,882		68,651,164	-5.1%		14,062	
2009	723		15,966,067	893		13,502,776	4,712		71,114,455	3.6%		15,092	
2010	789		17,200,407	777		15,066,829	4,724		73,248,033	3.0%		15,506	
2011	752		15,000,150	867		18,071,429	4,609		70,176,754	-4.2%		15,226	

Reflects actual, but not assumed, benefit offsets. Does not include overpayment offsets.
 Includes changes in benefit amounts.

## Schedule of Unfunded (Over) Accrued Liabilities

Last 6 Years

(Dollars in Thousands)

Year Ended June 30	Actuarial Accrued Liabilities Plan	Actuarial Value of Net Plan Assets	Assets as a % of Accrued Liabilities Plan	Unfunded (over funded) Accrued Liabilities Plan (AAL)	Active Member Payroll	UAAL as a % of Active Member Payroll
2006	574,701	194,297	33.8%	380,404	8,311,870	4.60%
2007	604,486	231,685	38.3%	372,800	9,161,804	4.10%
2008	553,185	274,902	49.7%	278,283	9,708,353	2.90%
2009	476,276	311,232	65.4%	165,044	9,834,810	1.70%
2010	477,266	319,308	66.9%	157,958	9,419,952	1.70%
2011	455,695	307,537	67.5%	148,158	9,060,631	1.60%

## **Solvency Test**

Last 6 Years (Dollars in Thousands)

	Aggregate Accrued Liabilities for:								
Year End June 30	ACTIVE MEMBER	RETIREES AND BENEFICIARIES	ACTIVE MEMBERS (EMPLOYER FINANCED PORTION)	Net Assets Available for Benefits	Liabi by	ilities C			
	(1)	(2)	(3)		(1)	(2)	(3)		
2006	-	247,577	327,124	194,297	100%	78%	0%		
2007	-	274,947	329,539	231,685	100%	84%	0%		
2008	-	233,871	319,315	274,902	100%	100%	13%		
2009	-	235,921	240,355	311,232	100%	100%	31%		
2010	-	242,098	235,168	319,308	100%	100%	33%		
2011	-	234,155	221,540	307,537	100%	100%	33%		

## Schedule of Recommended vs. Actual LTD Contributions

Last 10 Years (Dollars in Thousands)

Year Ended June 30	Active Member Payroll	Employee Contributions	Employer LTD Contribution Rate - Actual	Actuary Recommended Contribution
2002	6,989,000	34,945	0.50%	0.50%
2003	7,297,000	36,485	0.50%	0.50%
2004	7,486,000	37,430	0.50%	0.50%
2005	8,032,000	40,160	0.50%	0.50%
2006	8,312,000	41,560	0.50%	0.50%
2007	9,162,000	45,810	0.50%	0.50%
2008	9,708,000	48,540	0.50%	0.50%
2009	9,834,810	49,174	0.50%	0.50%
2010	9,419,952	37,680	0.40%	0.40%
2011	9,060,630	23,558	0.48%	0.48% <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Subsequent to the completion of the June 30, 2011 Actuarial Valuation which set the LTD rate at .50% beginning July 1, 2011, the 50<sup>th</sup> Arizona State Legislature enacted legislation which retroactively reverted contribution rates back to 50% for employees and 50% for employers and resulted in a revision of the LTD rate to .48% beginning July 1, 2011.

## **Analysis of Financial Experience for LTD**

As of June 30, 2011

	Lives		Reserves
1. CHANGE IN OPEN CLAIMS RESERVES	2.703		
The increase in the reserves for payments not yet due on disable follows:	ed lives may be	sumn	narized as
(a) Open Claims Reserve Liability on July 1, 2010	4,724	\$	235,540,669
(b) Change in reserve on 3,857 continuing disabled lives	N/A		(31,889,111)
(c) Reserves released on terminated lives	(867)		(22,436,093)
(d) Reserves added on new lives	752		46,476,269
(e) Open Claims Reserve Liability on June 30, 2011			
= (a) + (b) + (c) + (d)	4,609	\$	227,691,734
2. DEVELOPMENT OF LIABILITY (GAIN)/LOSS			
(a) Actuarial Accrued Liability as of July 1, 2010		\$	477,265,773
(b) Normal Cost for 2009/2010			30,456,285
(c) Expected Benefit Payments for 2009/2010			71,785,000
(d) Expected Actuarial Accrued Liability on June 30, 2011			
$= ((a) + (b)) \times 1.08 - (c) \times (1 + .08 \times 13/24)$			473,444,140
(e) Change in Plan Terms			N/A
(f) Change in Assumptions			(6,202,201)
(g) Liability (Gain)/Loss			(11,546,699)
(h) Actual Actuarial Accrued Liability on June 30, 2011			
= (d) + (e) + (f) + (g)		\$	455,695,240
3. SOURCES OF LIABILITY (GAIN)/LOSS			
(a) Offset (Gain)/Loss		\$	(5,738,891)
(b) Liability for members who were terminated in last year's va	luation		8,970,566
(c) More Terminations than Expected			(2,998,877)
(d) Fewer LTD Retirees than Expected			(6,226,337)
(e) Salary Gain on Continuing Actives			(10,226,530)
(f) New Active Entrants			5,188,042
(g) Other (Gain)/Loss			(514,672)
(h) Liability (Gain)/Loss			
= (a) + (b) + (c) + (d) + (e) + (f) + (g)		\$	(11,546,699)

4. DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS		
(a) Excess (Shortfall) of Investment Income:		
(i) Current Year	\$	36,999,159
(ii) Current Year – 1		10,543,678
(iii) Current Year – 2		(68,696,736)
(iv) Current Year – 3		(44,661,134)
(v) Current Year – 4		11,421,699
(vi) Current Year – 5		1,895,241
(b) Deferral of Excess (Shortfall):		
(i) Current Year (90% Deferral)		33,299,243
(ii) Current Year – 1 (80% Deferral)		8,434,942
(iii) Current Year – 2 (70% Deferral)		(48,087,715)
(iv) Current Year – 3 (60% Deferral)		(26,796,680)
(v) Current Year – 4 (50% Deferral)		5,710,850
(vi) Current Year – 5 (40% Deferral)		758,096
(vi) Total Deferred for the Year		(26,681,264)
(c) Market Value of Assets as of June 30, 2011		280,855,626
(d) Actuarial Value of Assets as of June 30, 2011 = (c) - (b)(vi)	\$	307,536,890
5. DEVELOPMENT OF ASSET (GAIN)/LOSS		
(a) Actuarial Value of Assets as of July 1, 2010	\$	319,308,050
(b) Contributions		43,378,524
(c) Actual Benefit Payments for 2010/2011		66,123,876
(d) Administrative Expenses		2,675,996
(e) Expected Investment Income at 8% Return =		
$((a) \times .08) + ((b) \times .08 \times 1/2) - ((c) \times .08 \times 13/24)$		24,414,417
(e) Expected Actuarial Assets as of June 30, $2010 = (a) + (b) - (c) - (d) + (e)$		318,301,119
(f) Gain/(Loss) on Actuarial Assets		10,764,229
(g) Actuarial Assets as of June 30, 2010 = (f) - (g)	\$	307,536,890
The asset loss occurred because investment earnings on actuarial assets were less. The actual net return on actuarial assets was 4.47%, compared to the assumption net return on market value of assets was 23.66%, compared to the assumption of	of 80	

	AMOUNT OF	
6. ANALYSIS OF SEDGWICK OFFSETS	MONTHLY	NUMBER WITH
	OFFSETS	OFFSETS
Description of Offset from Sedgwick as of June 30, 2011		
Social Security Disability	\$ 2,591,123	3,431
Social Security Retirement	121,389	145
Other	492,182	986
Total	\$3,204,694	4,562
Description of Offset from Sedgwick as of June 30, 2010		
Social Security Disability	\$ 2,378,771	3,459
Social Security Retirement	143,371	169
Other	446,539	918
Total	\$2,968,681	4,546

## A. LEGISLATED PLAN CHANGES ENACTED BY THE 1989 LEGISLATURE OF THE STATE OF ARIZONA

### 1. Projected Unit Credit (PUC) Funding Method

Beginning with the June 30, 1989 actuarial valuation, the total employee and employer contributions payable beginning July 1, 1990 shall be determined using the Projected Unit Credit (PUC) funding method.

### 2. \$12,000 Minimum Average Compensation for Current Retirees

Recalculation of the retirement benefit for all plan members retired before June 30, 1989 who had 10 years of credited service using a minimum average compensation of one thousand dollars per month.

### 3. 2.0% Ad Hoc COLAs

- Effective July 1, 1989, all members retired on or before June 30, 1988 shall receive a 2.0% permanent benefit increase to their December 31, 1988 base benefit.
- Effective July 1, 1990, all members retired on or before June 30, 1989 shall receive a 2.0% permanent benefit increase to their June 30, 1990 base benefit.

### 4. Early Retirement Window

During the period of May 15, 1989 through November 14, 1989 a member who is eligible for either Normal Retirement or Early Retirement with age plus credited service at least equal to 80, may retire and receive a benefit calculated using a 2.2% multiplier instead of the 2.0% multiplier in effect at that time.

### 5. 3.0% Tax Equity Allowance

Retroactive to the later of January 1, 1989 or the date payments commence, each member retiring on or before September 14, 1989 shall receive a tax equity benefit allowance consisting of a permanent increase of 3.0% in his or her January 1, 1989 base benefit.

## B. LEGISLATED PLAN CHANGES ENACTED BY THE 1990 LEGISLATURE OF THE STATE OF ARIZONA

### 1. Rule of 82

Effective May 1, 1990, the number of points (sum of member's age and years of service) required to be eligible for normal retirement shall be reduced from 85 to 82. Also, the early retirement reduction factor for employees with 77 or more points but less than 82 points shall be 3% for each point or fraction thereof less than 82.

### 2. 3.0% Tax Equity Allowance

Each member who retires between September 15, 1989 and September 14, 1990 shall receive a tax equity benefit allowance consisting of a permanent increase of 3.0% in his or her base benefit, retroactive to the date of retirement.

### 3. Graded Vesting for Health Insurance Premium Supplement

The Health Insurance Premium Supplement is extended to those qualifying members with between five and nine years of service. The member will be eligible to receive 10% of the benefit for each completed year of service (i.e., 50% to 90%).

# C. LEGISLATED PLAN CHANGES ENACTED BY THE 1991 LEGISLATURE OF THE STATE OF ARIZONA

### 1. 3.0% Tax Equity Allowance

Each member who retires between September 15, 1990 and September 14, 1991 shall receive a tax equity benefit allowance consisting of a permanent increase of 3.0% in his or her base benefit, retroactive to the date of retirement.

### 2. Recalculation of Retiree Benefits Using 2.0% Benefit Multiplier

Each retired member with at least 10 years of service who retired prior to June 30, 1985 shall have his or her benefit recomputed. The recomputed benefit shall be equal to 2% times final average earnings times credited service plus an additional \$2 for each year of service. The retired member will receive the larger of the recalculated benefit or his/her current benefit. This increase is effective October 1, 1991.

#### 3. 2.3% Ad Hoc Increase

Effective July 1, 1991 all members retired on or before June 30, 1990 shall receive a 2.3% permanent benefit increase in their June 30, 1991 base benefit.

### 4. Rule of 80

Effective July 1, 1992, the number of points (sum of member's age and years of service) required to be eligible for normal retirement shall be reduced from 82 to 80. (For continuation purposes this legislation is not reflected until the 1993/94 fiscal year).

### 5. Pop-up Option

A pop-up option is added for retiring members who first participate in the Plan on or after December 31, 1991.

# D. LEGISLATED PLAN CHANGES ENACTED BY THE 1992 LEGISLATURE OF THE STATE OF ARIZONA

### 1. 3.0% Tax Equity Allowance

Each member who retires between September 15, 1991 and September 14, 1992 shall receive a tax equity benefit allowance consisting of a permanent increase of 3.0% in his or her base benefit, retroactive to the date of retirement.

#### 2. Minimum Retiree Benefit

Each retiree of the Arizona State Retirement Plan who is at least age 75 on December 31, 1992 and who had at least ten years of service upon retirement from the plan ten years of service upon retirement from the plan shall be eligible for a minimum benefit. If the eligible retiree had at least ten years of service but less than fifteen years, his minimum benefit is \$350 a month. If the eligible retiree had at least fifteen years of service but less than twenty, his minimum benefit is \$500. If the eligible retiree had at least twenty years of service his minimum benefit is \$600. The minimum benefit shall be compared to the retiree's current benefit (including all ad hoc increases).

#### 3. 5% Ad Hoc Increase

Effective November 1, 1992 all members retired on or before October 31, 1992 shall receive a 5% permanent benefit increase in their October 31, 1992 benefit.

#### 4. Forfeited Service Repurchase

Any present active member who has previously forfeited service has until December 31, 1994 to repurchase the forfeited service by paying the Plan the employee and employer contributions (accumulated with interest) which would have been contributed during the member's period of forfeited service.

#### 5. Repurchase of Service Due to Reduction in Force

Any present active member who was terminated prior to December 31, 1992 as a result of a required reduction in force may purchase the credited service for the following period of unemployment if the member had five or more years of service at the time of termination and resumed employment with a participating employer within two years of termination. The cost of the repurchase is the total of the employee and employer contribution (accumulated with interest) which would have been contributed during the member's period of unemployment.

#### 6. Change in Section 38-781.05 Funding Method

Section 38-781.05 of the plan was amended so that the funding period for the Plan would continue to be the period between valuation and June 30, 2003 as long as the Plan has a negative Unfunded Actuarial Accrued Liability. If the Plan were to have a positive UAAL, then the old funding mechanism would apply.

### E. LEGISLATED PLAN CHANGES ENACTED BY THE 1993 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. No benefit changes were passed by the 1993 Legislature.

However, the Legislature passed legislation to reduce the required contribution rate of 4.09% down to 3.14%.

## F. LEGISLATED PLAN CHANGES ENACTED BY THE 1994 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Minimum LTD Benefit

Each member on long term disability will receive a minimum monthly benefit of \$50.

#### **SUMMARY OF LEGISLATIVE PLAN CHANGES (CONTINUED)**

#### 2. Minimum Retiree Benefit

Each retiree of the Arizona State Retirement Plan who is at least age 75 and who had 20 or more years of service at retirement will receive a minimum monthly benefit of \$600.

#### 3. Pop-up Benefit

Members who retired prior to January 1, 1992 and who elected a Joint and Survivor option shall receive a "Pop-up" in their retirement income if their beneficiary pre-deceases them.

#### 4. Excess Investment Earnings COLA

Retirees at least age 55 who have been retired at least one year and members on long-term disability are eligible to receive a cost-of-living adjustment equal to one-half the increase in CPI for the prior calendar year. The COLA will be paid from a reserve of Excess Investment Earnings. If there are no Excess Investment Earnings in reserve, no COLA will be granted.

#### 5. Change in Section 38-737 Funding Period

Section 38-737 was amended to change the funding period of the Plan to a rolling 30-year period. The change is to be phased-in over the next nineteen years. If the Plan ceases to have a surplus, the funding period would immediately go to 30-years.

# G. LEGISLATED PLAN CHANGES ENACTED BY THE 1995 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Change in Maximum Increase Provided by Excess Investment Earnings COLA

The maximum COLA payable from Excess Investment Earnings was increased from 50% to 100% of the increase in the CPI.

#### 2. Removal of LTD Benefit from the Plan

The Legislature established a new LTD program and removed the LTD benefit from the Plan. Liabilities for current LTD recipients will be transferred to the new LTD program effective October 1, 1995.

#### 3. Creation of Separate Account for the Health Premium Supplement

The Health Premium Supplement benefit is to be separated into a 401(h) account. The assets and liabilities associated with the Health Premium Supplement will be accounted for separately.

# H. LEGISLATED PLAN CHANGES ENACTED BY THE 1996 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. No material changes.

## I. LEGISLATED PLAN CHANGES ENACTED BY THE 1997 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Creation of family Health Supplement.

Allows unused portion of the Health Supplement of a member or dependent to be used to pay the other recipient's health insurance premium.

- 2. The calculation methodology for the Excess Investment Earnings COLA was modified.
- 3. The contribution rate will be determined on a biennial cycle beginning with the 2000 fiscal year.

## J. LEGISLATED PLAN CHANGES ENACTED BY THE 1998 LEGISLATURE OF THE STATE OF ARIZONA

1. No material changes.

## K. LEGISLATED PLAN CHANGES ENACTED BY THE 1999 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Enhanced Refund Option

Employees who terminate prior to eligibility for retirement may elect to receive a refund of their employee contributions with interest. If the employee has at least five years of service, the employee is also entitled to a share of the employer contributions with interest. The share is 50% with five years of service and increases 10% for each additional year of service to a maximum of 100% for ten or more years of service.

#### 2. Benefit Multiplier Increased to 2.1%

The benefit multiplier increased from 2.0% to 2.1% effective July 1, 2000.

#### 3. 5% Ad Hoc Increase

A 5% retiree ad hoc increase for retirees and beneficiaries effective July 1, 2000.

#### 4. Increase in Maximum Service While on LTD

Increase in the maximum amount of service that may be accrued while on LTD from 25 to 30.

### 5. Changes in Permanent Benefit Increase COLA

- a) The maximum aggregate COLA was increased from 3% to 4%.
- b) The threshold for determining "Excess Earnings" was lowered from 9% to 8%.
- c) The limitation of the COLA to the increase in the CPI was removed.

# L. LEGISLATED PLAN CHANGES ENACTED BY THE 2000 LEGISLATURE OF THE STATE OF ARIZONA

1. The age restriction on the Permanent Benefit Increase was eliminated.

# M. LEGISLATED PLAN CHANGES ENACTED BY THE 2001 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Health Insurance Premium Benefit Increase

Increases the health insurance premium benefit for eligible members as follows:

- Benefit for Medicare eligible member with member only coverage increased from \$65 to \$100
- Benefit for non-Medicare eligible member with member only coverage increased from \$95 to \$150
- Benefit for family coverage where member and dependent are non-Medicare eligible increased from \$175 to \$260
- Benefit for family coverage where member and dependent are Medicare eligible increased from \$115 to \$170
- Benefit for family coverage where member is Medicare eligible and dependent is non-Medicare eligible increased from \$145 to \$215
- Benefit for family coverage where member is non-Medicare eligible and dependent is Medicare eligible increased from \$145 to \$215

#### 2. Graded Multiplier

Provides a graded multiplier in the retirement benefit formula, increasing with years of service according to the following:

- 0.00 to 19.99 Years of Service 2.10%
- 20.00 to 24.99 Years of Service 2.15%
- 25.00 to 29.99 Years of Service 2.20%
- 30.00 or More Years of Service 2.30%

#### 3. Employer Option Service Purchase Incentive

Permits an employer to offer a member who is eligible to retire under the Rule of 80 a contract to work an additional three years of employment. No contributions are made to ASRS during the contract. If the employee completes the contract, then they receive an additional three years of service with the option to purchase three more years of service.

#### 4. Permanent Benefit Increase Enhancement

Provides that interest at a rate of 8% be credited on the funds held in reserve for the permanent benefit increase (PBI). This interest will then be used to fund an additional increase for retirees who have at least 10 years of service and who have been retired at least five years. The increase is incremental for each five years of retirement.

#### 5. Temporary Rural Health Insurance Premium Benefit

In addition to the premium benefit paid to ASRS retired and disabled members, the Legislature granted a temporary benefit for retired and disabled members who live in areas of the state not served by a managed care program (HMO) and who have 10 years of credited service in the following amounts:

- Benefit for Medicare eligible member with member only coverage of \$170 per month
- Benefit for non-Medicare eligible member with member only coverage of \$300 per month
- Benefit for Medicare eligible members with Medicare eligible dependent with family coverage of \$350 per month
- Benefit for non-Medicare eligible members with non-Medicare eligible dependent with family coverage of \$600 per month
- Benefit for Medicare eligible members with non-Medicare eligible dependent with family coverage of \$470 per
- Benefit for non-Medicare eligible members with Medicare eligible dependent with family coverage of \$470 per month

#### 6. Partial Lump Sum Option

Allows a retiring member to receive a portion of his benefit in a lump sum payment. The lump sum is limited to a maximum of 36 monthly payments. The member's monthly annuity is actuarially reduced to reflect the lump sum payment.

#### 7. Maximum Benefit

Members who are hired after the date the graded multiplier became law have a maximum benefit equal to 80% of the member's 36-month final average earnings.

## N. LEGISLATED PLAN CHANGES ENACTED BY THE 2002 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. No material changes.

## O. LEGISLATED PLAN CHANGES ENACTED BY THE 2003 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Additional Temporary Health Insurance Premium Benefit (Rural Subsidy)

The Legislature extended the additional temporary Rural Health Insurance Subsidy for two years, beginning July 1, 2003 and ending June 30, 2005. The full benefit is provided to retired and disabled members who live in areas of the state not served by a Health Maintenance Organization (HMO) and who have 10 years of credited service. The Rural Health Insurance Subsidy now requires "minimum out of pocket" payments ranging from \$100 to \$425 per month, depending on the plan and coverage selected.

Rural Health Insurance Subsidy	without	Coverage Medicare A & B	Insurance Co	overage with arts A & B <sup>1</sup>
JUNE 1, 2003 - JUNE 30, 2005	SINGLE	FAMILY	SINGLE	FAMILY
Required Minimum Out-of-Pocket Payment	\$125	\$425	\$100	\$200
Rural Health Insurance Subsidy (Maximums)	Up to \$300	Up to \$600	Up to \$170	Up to \$350

<sup>1</sup> Combination plans that include Medicare eligible and non-Medicare eligible retiree and dependent coverage require a \$400 monthly out of pocket payment.

### P. LEGISLATED PLAN CHANGES ENACTED BY THE 2004 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Service Purchase Program

The Arizona Legislature revised the method of calculating the cost of service purchases, so that future purchased would be made at true actuarial present value.

#### 2. Early Retirement Incentive Programs

The Arizona Legislature provided that employers that participate in ASRS and offer early retirement incentives to their employees must notify the ASRS of the incentives. ASRS will determine the cost of the incentives and the employers will pay the cost.

#### 3. Long-Term Disability Program

The Arizona Legislature revised and clarified LTD provisions so that disabled members will be required to participate in rehabilitation programs and to pursue Social Security Disability benefits. In addition, the legislation limited the receipt of disability benefits on the basis of a member's "own occupation" to 24 months, rather than to 24 consecutive months.

## Q. LEGISLATED PLAN CHANGES ENACTED BY THE 2005 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Temporary Rural Health Insurance Premium Benefit

The Legislature extended the temporary Rural Health Insurance Subsidy for the next two years, from July 1, 2005 to June 30, 2007. The benefit is provided to Medicare-eligible retirees and disabled members who live in Arizona counties with no Health Maintenance Organization (HMO) service area and who have 10 years of credited service.

#### 2. Contribution Rates

The Legislature pegged the contribution rates for fiscal 2006 and 2007 at 6.90% and 8.60%, respectively. After fiscal 2007, contribution rates are to be determined annually.

### R. LEGISLATED PLAN CHANGES ENACTED BY THE 2006 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Elections After Retirement

Legislature limited the ability of ASRS retirees to rescind their elections after retirement. Specifically, members who have chosen a form with a death benefit can "pop up" once to the single life form, but are then not allowed to "pop down" to a death benefit form. ASRS will implement this provision upon receipt of a private letter ruling from the Internal Revenue Service.

#### 2. Conformance with Certain Federal Regulations

State statutes were modified to conform to federal regulations regarding military service purchases, optional forms of retirement benefits, and minimum required distributions.

#### 3. Repeal of Deferred Retirement Option Plan

The Legislature repealed the modified Deferred Retirement Option Plan (DROP).

# S. LEGISLATED PLAN CHANGES ENACTED BY THE 2007 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Social Security Offsets and Pre-Existing Condition Period

Offset percentages for Social Security disability benefits were increased from 64% to 85% and for Social Security retirement benefits from 83% to 85% for members who become disabled on or after July 1, 2008. The pre-existing condition period is increased from three months to six months for members hired on or after July 1, 2008. ASRS is required to recover overpayments by reducing future benefits to a member, beneficiary, or alternate payee.

#### 2. Temporary Rural Health Insurance Premium Benefit

The Legislature extended the temporary Rural Health Insurance Subsidy for two years from July 1, 2007 to June 30, 2009. The benefit is provided to Medicare-eligible retirees and disabled members who live in Apache, Gila, Mohave, or Navajo counties if they have ten years of credited service.

#### 3. Exemption of Post-Doctoral Scholars

Effective September 19, 2007, post-doctoral scholars are exempted from ASRS membership.

#### 4. Expanded Eligibility for Active Military Service Credit

Effective July 1, 2007, the term "presidential" call-up is changed to "military" call-up. It applies death and disability benefits to those that occur during active military service rather than just to those that are a result of active service. The law allows a member who becomes disabled during or as a result of active service to receive service credit (paid by the employer) from the date active service began through one year after the member's date of disability if the member cannot return to work. The disability provision expires June 30, 2009.

# T. LEGISLATED PLAN CHANGES ENACTED BY THE 2008 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Unclaimed Property Exemption and Procedures

Legislation exempted ASRS from unclaimed property statutes. ASRS members will forfeit their benefits if they do not claim them by the time they reach age 73½. If such a member later claims his benefit, his benefit will be restored with interest if applicable. ASRS will send notices to members beginning at age 65½, and will make efforts to find lost members.

#### 2. Divestment from Companies Investing in Iran or Doing Business in Sudan

ASRS must engage with and potentially divest from companies that have invested, since August 5, 1996, \$20 million or more in any year in Iran's petroleum energy sector or that meet specific Sudan-related business operations criteria. Additionally, ASRS must divest from companies that violate paragraph 6(j) of the Export Administration Act.

#### 3. Transfer Procedures

For voluntary transfers, the legislation allowed retired or disabled members to elect whether to remain with ASRS or to transfer to another system and specified how a transfer will affect payroll deduction agreements. For a transfer that is mandated by either statute or an employer, the legislation required retired or disabled members to remain with ASRS and specified how a transfer will affect payroll deduction agreements.

#### 4. Transfer Out Bills

These bills expanded the ASRS credited service that a dispatcher may transfer to CORP and extended the time-frame for ASRS to transfer assets from 60 to 90 days. They expanded the definition of designated position to include State detention officers and provided that all prior ASRS service will transfer to CORP unless the employee irrevocably elects to remain with ASRS. They allowed the local board of the judiciary to designate certain positions within the Administrative Office to the Courts for membership in CORP.

#### 5. Plan Administration

This bill modified one of the salary calculations used for service purchases to be the average of the three pay periods (out of the last five) that remain after the pay periods with the highest and lowest pay are removed. It clarified that the salary calculations used for other public service purchases are also used for leave of absence purchases. It granted the ASRS Board rulemaking authority over the Plan, LTD program, and transfers. It clarified that a member who purchases forfeited service credit is subject to the benefit structure in place when the person again becomes a member. Finally, it required ASRS to recover overpayments by reducing benefits owed to a member, beneficiary, or alternate payee.

#### 6. Federal Conforming Changes

The Legislature made changes to comply with federal laws and IRS regulations, most notably the Economic Growth and Tax Relief Reconciliation Act of 2001.

## **U. LEGISLATED PLAN CHANGES ENACTED BY THE 2009 LEGISLATURE OF** THE STATE OF ARIZONA

#### 1. Service Purchase

Effective July 1, 2010, members will be required to have five years of service credit in ASRS before initiating a service purchase.

#### 2. 80% Cap on Benefits

Effective July 1, 2010, the maximum limit on ASRS pensions of 80% of 36-month final average earnings is eliminated.

#### 3. Return to Work

Retired members who return to work with a suspension of benefits and work for at least 60 consecutive months will be permitted to choose a new optional form of benefit when they again retire.

Retired members are allowed to return to work without suspension if the member returns to a different position that does not require participation and the member participates in another program.

#### 4. Administration

ASRS is exempt from State Personnel Management and Personnel Board provisions and the State classification and compensation statute.

#### 5. Early Termination Incentives

The scope of the early termination incentive statute is broadened and exceptions are limited.

#### 6. Dual Employment

Contributions from a second employer will count, beginning January 1, 2010, only if member meets 20/20 membership criteria with respect to the second employer, with certain exceptions.

## V. LEGISLATED PLAN CHANGES ENACTED BY THE 2010 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Average Monthly Compensation

The Average Monthly Compensation used in the retiring member's retirement benefit calculation is changed from the average of the highest consecutive 36 months in the last 120 months to the average of the highest consecutive 60 months in the last 120 months for a member whose membership commences on or after July 1, 2011.

#### 2. Normal Retirement Date

The Normal Retirement Date definition is changed from 80 to 85 points (age plus years of service) for a member whose membership commences on or after July 1, 2011.

#### 3. Early Retirement Deductions

The Early Retirement reductions were also modified to conform to the 85 point normal retirement for a member whose membership commences on or after July 1, 2011 by adjusting the period over which the reduction is calculated.

#### 4. Employer Contribution Refunds

Employer contribution refunds are eliminated for a member hired on or after July 1, 2011 except for a member who was terminated due to an Employer Reduction in Force or position eliminated, in which case the member will receive the current refund vesting schedule.

#### 5. Long-Term Disability Plan Appeals

A person appealing an ASRS decision under the LTD Program (usually a decision of an Administrative Law Judge) may request that the ASRS Board hear the appeal in Executive Session, rather than in a Public Hearing. The request for Executive Session must be made at least 48 hours in advance and the Board shall then conduct the hearing in Executive Session. The Board is required to follow existing Executive Session procedures established in the Open Meeting Law statutes. Minutes of and discussions held at an Executive Session are confidential except from the appellant for use in the appellant's further appear to the Superior Court.

#### 6. Health Insurance

A retiree may no longer purchase individual health care coverage and receive the Health Benefit Supplement (HBS). [NOTE: this provision will not eliminate the HBS or ASRS insurance enrollees or retirees enrolled in their former Employer's insurance. ASRS may continue to pay the HBS to a retiree who is receiving the payment under the current statutory provisions (one retiree).

### 7. Compensation

I.R.C. 415 Compensation Regulations and military differential wage payments from the Heroes Earnings Assistance and Relief Tax Act of 2008 (HEART Act) have been updated as required by the Internal Revenue Service.

## W.LEGISLATED PLAN CHANGES ENACTED BY THE 2011 LEGISLATURE OF THE STATE OF ARIZONA

#### 1. Eligibility of New State Employees

State employees hired after July 20, 2011, will not be eligible for the ASRS Plan or LTD program before their 27<sup>th</sup> week of employment, unless they are already members of ASRS.

#### 2. Normal Retirement Age

For members whose membership commenced on or after July 1, 2011, the 85-point requirement is removed and replaced by two rules: age 60 and 25 years of credited service or age 55 and 30 years of credited service. Early retirement reductions are adjusted to reflect these new rules.

#### 3. Service Purchase Rules

Purchases of Other Public Service, Leave of Absence Service, and Military Service (except USERRA or Heart Act purchases) are limited to 60 months for each type of purchase, and a member is required to have ten years of credited service before initiating a request to purchase such service.

#### 4. Return to Work Rules

Employers are required to pay an Alternate Contribution Rate (ACR) for retired members who return to work on or after July 1, 2012, in any capacity and in a position ordinarily filled by an employee of the employer. The ACR is the greater of 2% or the contribution rate to fund the deficits of the Plan and LTD program, but not greater than the employer's portion of the total contribution rate for the Plan and LTD program.

#### 5. Split of Contributions

Retroactive to July 1, 2011, responsibility for making contributions to the ASRS Plan and LTD programs is changed from 50% employees and 50% employers to 53% employees and 47% employers. Pre-retirement survivor benefits are based on the sum of the employee and employer balances, rather than twice the employee balance.<sup>1</sup>

<sup>1</sup> Subsequent to the completion of this actuarial valuation, the 50<sup>th</sup> Arizona State Legislature enacted legislation which retro actively reverted the contribution rate back to 50% for employees and 50% for employers, beginning July 1, 2011.

## V. Statistical Section

This part of the Arizona State Retirement System's Comprehensive Annual Financial Report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required summary information says about the ASRS's overall financial health.

#### Financial Trends

These schedules contain trend information to help the reader understand how the ASRS's Financial Performance has changed over the past 10 years.

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#### Revenues

These schedules contain information to help the reader understand the ASRS's funding over the last 10 years.

	al Contribution Rates – Last 10 Fiscal Years 151
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## **Operations**

These schedules contain information about the ASRS's Operations.

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Principal Participating Employers – Current Year and Nine Years Ago	156

Schedules and information is derived from ASRS internal sources unless otherwise noted.

# Net Assets Last 10 Fiscal Years (Dollars in Thousands)

Retirement Net Assets					Fiscal Year	Year				
ASSETS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cash, Receivables, and Prepaids	\$ 414,382	\$ 2,139,601	\$ 2,091,244	\$ 2,396,175	\$ 2,197,053	\$ 2,095,722	\$ 867,888	\$ 975,021	\$ 1,056,204	\$ 1,006,349
Investments at Fair Value	20,659,916	23,291,652	24,154,827	25,699,691	30,978,445	29,021,366	23,379,787	24,620,142	27,911,298	26,247,996
Total Assets	21,074,298	25,431,253	26,246,071	28,095,866	33,175,498	31,117,088	24,247,675	25,595,163	28,967,502	27,254,345
LIABILITIES										
Investments Payable	3,149,294	4,938,242	4,654,687	4,853,112	6,078,211	6,368,470	4,313,128	3,404,191	2,086,445	795,215
Other Payables	3,423	7,822	20,470	23,108	27,729	31,431	54,094	44,012	41,834	52,036
<b>Total Liabilities</b>	3,152,717	4,946,064	4,675,157	4,876,220	6,105,940	6,399,901	4,367,222	3,448,203	2,128,279	852,251
TOTAL NET ASSETS	\$17,921,581	\$20,485,189	\$21,570,914	\$23,219,646	\$27,069,558	\$24,717,187	\$19,880,453	\$22,146,960	\$26,839,223	\$26,402,094
HBS Net Assets					Fiscal Year	Year				
ASSETS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cash, Receivables, and Prepaids	\$ 15,451	\$ 85,226	\$ 85,061	\$ 96,084	\$ 90,106	\$ 94,213	\$ 45,385	\$ 48,532	\$ 52,196	\$ 79,217
Investments at Fair Value	805,430	917,308	974,406	1,081,538	1,335,221	1,273,867	1,046,717	1,101,174	1,236,614	1,177,906
Total Assets	820,881	1,002,534	1,059,467	1,177,622	1,425,327	1,368,080	1,092,102	1,149,706	1,288,810	1,257,123
LIABILITIES										
Investments Payable	122,775	194,486	187,770	204,237	261,980	279,619	193,139	152,374	92,594	35,022
Other Payables	•		09	3,639	394	475	1,770	1,737	1,487	19,282
Total Liabilities	122,775	194,486	187,830	207,876	262,374	280,094	194,909	154,111	94,081	54,304
TOTAL NET ASSETS	\$ 698,106	\$ 808,048	\$ 871,637	\$ 969,746	\$ 1,162,953	\$ 1,087,986	\$ 897,193	\$ 995,595	\$ 1,194,729	\$ 1,202,819
LTD Net Assets					Fiscal Year	Year				
ASSETS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cash, Receivables, and Prepaids	\$ 4,145	\$ 7,641	\$ 14,040	\$ 15,241	\$ 10,565	\$ 12,331	\$ 11,998	\$ 6,808	\$ 6,371	\$ 7,172
Value	108,364	130,428	151,025	180,983	233,148	233,062	215,151	243,823	274,734	250,594
Total Assets	112,509	138,069	165,065	196,224	243,713	245,393	227,149	250,631	281,105	257,766
LIABILITIES										
Investments Payable	1	•	1	•	•	1	i	1	1	1
Other Payables	2,308	207	231	222	227	222	4,341	252	250	443
Total Liabilities	2,308	207	231	222	227	222	4,341	252	250	443
TOTAL NET ASSETS	\$ 110,201	\$ 137,862	\$ 164,834	\$ 196,002	\$ 243,486	\$ 245,171	\$ 222,808	\$ 250,379	\$ 280,855	\$ 257,323

# **Changes in Net Assets** Last 10 Fiscal Years (Dollars in Thousands)

Retirement Change in Net Assets					Fiscal Year	Year				
ADDITIONS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Member Contributions	\$ 142,356	\$ 377,436	\$ 403,661	\$ 570,933	\$ 766,962	\$ 857,813	\$ 844,540	\$ 808,908	\$ 833,287	\$ 905,968
Employer Contributions	138,100	297,770	318,311	477,472	663,544	759,482	754,044	763,099	786,662	852,167
Service/Transfers	93,552	113,944	141,932	125,751	107,548	95,226	72,436	73,973	70,812	53,659
(Loss)	354,735	3,096,779	1,720,991	2,126,272	4,105,644	(1,963,259)	(4,433,461)	2,872,297	5,406,714	322,870
Total Additions	728,743	3,885,929	2,584,895	3,300,428	5,643,698	(250,738)	(2,762,441)	4,518,277	7,097,475	2,134,664
DEDUCTIONS										
Retirement Benefits	1,067,481	1,238,966	1,406,547	1,538,992	1,650,818	1,768,219	1,888,931	2,031,119	2,166,779	2,297,947
Survivor Benefits	15,861	14,859	18,402	17,125	21,590	22,648	30,378	26,472	23,949	29,731
Refunds due to Separation	35,976	36,212	44,164	60,313	77,910	104,387	120,689	154,144	180,719	207,289
Transfers Out	7,457	2,336	4,581	5,129	10,117	177,176	2,706	11,455	6,256	5,024
Administration and Other	27,345	29,948	25,476	30,137	33,351	29,203	28,589	28,580	27,509	31,802
<b>Total Deductions</b>	1,154,120	1,322,321	1,499,170	1,651,696	1,793,786	2,101,633	2,074,293	2,251,770	2,405,212	2,571,793
NET CHANGE	(425,377)	2,563,608	1,085,725	1,648,732	3,849,912	(2,352,371)	(4,836,734)	2,266,507	4,692,263	(437,129)
Net assets beginning of year	18,346,958	17,921,581	20,485,189	21,570,914	23,219,646	27,069,558	24,717,187	19,880,453	22,146,960	26,839,223
NET ASSETS END OF YEAR \$17,921,581	\$17,921,581	\$20,485,189	\$21,570,914	\$23,219,646	\$27,069,558	\$24,717,187	\$19,880,453	\$22,146,960	\$26,839,223	\$ 26,402,094

# **Changes in Net Assets** Last 10 Fiscal Years (Dollars in Thousands)

HBS Change in Net Assets								Fisc	Fiscal Year	<u> </u>						
ADDITIONS	2003		2004		2002		2006	2007		2008	I.N	5009	2010		2011	2012
Employer Contributions \$	4,256	₩.	79,662	\$	\$ 056,380	\$	93,461 \$	\$ 103,473	3 \$	99,027	\$	\$ 067'06	26,393	3 \$	51,048	\$ 54,463
Reimbursements	•		•		•		1			•					1	35,473
Net Investment Income (Loss)	10,436		114,906		68,750		86,587	174,348	œ	(87,559)	(19	(192,303)	128,258		240,994	13,439
Total Additions	14,692		194,568	1	154,100	11	180,048	277,821	1	11,468	(101	(101,813)	187,651		292,042	103,375
DEDUCTIONS																
Health Premium Benefits	84,534		83,680		89,602		80,827	83,236	9:	85,132	<i></i>	87,723	87,983	3	91,699	93,915
Administration and Other	899		946		606		1,112	1,378	8	1,303		1,257	1,266	9	1,209	1,370
Total Deductions	85,433		84,626		90,511	~	81,939	84,614	4	86,435	8	88,980	89,249		92,908	95,285
NET CHANGE	(70,741)		109,942		63,589	,	98,109	193,207		(74,967)	(190	(190,793)	98,402		199,134	8,090
Net assets beginning of year	768,847		698,106		808,048	ω	871,637	969,746	9.	1,162,953	1,08	1,087,986	897,193		995,595	1,194,729
NET ASSETS END OF YEAR	\$ 698,106	₩.	808,048	8	871,637	96 \$	969,746	\$ 1,162,953	₩.	1,087,986	68 \$	\$ 561,168	995,595	₩.	1,194,729	\$1,202,819
LTD Change in Net Assets								Fisc	Fiscal Year	ř						
ADDITIONS	2003		2004		2002		2006	2007		2008	1.7	2009	2010		2011	2012
Member Contributions \$	\$ 34,801	\$	36,026	\$	38,982	₩.	41,188 \$	\$ 44,518	\$ 8.	47,171	\$	47,213 \$	32,939	\$ 6	21,689	\$ 20,998
Employer Contributions	34,800		36,026		38,982		41,188	44,518	ωį	47,171	7	47,213	35,939	6	21,689	20,998
Net Investment Income (Loss)	3,461		17,100		13,651		18,080	30,526	بو	(21,623)	4	(47,726)	27,661	1	56,744	2,419
Total Additions	73,062		89,152		91,615	11	100,456	119,562	2	72,719	4	46,700	99,539		100,122	44,415
DEDUCTIONS																
Disability Benefits	54,688		926'85		62,183		269′99	69,221	11	68,284	)	65,781	69,148	8	66,124	65,190
Administration and Other	2,177		2,515		2,460		2,593	2,857	22	2,750		3,282	2,820	0	3,522	2,757
Total Deductions	56,865		61,491		64,643	-	69,288	72,078	8	71,034	9	69,063	71,968		69,646	67,947
NET CHANGE	16,197		27,661		26,972	,	31,168	47,484	4	1,685	(22	(22,363)	27,571		30,476	(23,532)
Net assets beginning of year	94,004		110,201		137,862	1	164,834	196,002	12	243,486	77	245,171	222,808		250,379	280,855
NET ASSETS END OF YEAR	\$ 110,201	₩.	137,862	\$ 1	164,834	\$ 19	196,002	\$ 243,486	\$ 9	245,171	\$ 22	\$ 808'222	250,379	₩.	280,855	\$ 257,323

# **Actual Contribution Rates Last 10 Fiscal Years**

Retirement <sup>1</sup> Contribution Rates				F	iscal `	Years				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Member	2.00	5.20	5.20	6.90	8.60	9.10	8.95	9.00	9.60	10.50
Employer	1.94	4.10	4.10	5.77	7.55	8.05	7.99	8.34	9.01	9.87

HBS Contribution Rates				F	iscal `	Years				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Employer	0.06	1.10	1.10	1.13	1.05	1.05	0.96	0.66	0.59	0.63

LTD Contribution Rates				F	iscal `	Years				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Member	0.49	0.50	0.50	0.50	0.50	0.50	0.50	0.40	0.25	0.24
Employer	0.49	0.50	0.50	0.50	0.50	0.50	0.50	0.40	0.25	0.24

The above schedule does not include System retirees.

Source: Buck Consultants, LLC

# Members by Type of Benefit As of June 30, 2012

Retirement Monthly Benefit <sup>2</sup>			(	Options¹			
	1	2	3	4	5	6	7
Under \$300	9,410	259	379	721	2,241	188	395
\$300 - \$499	6,422	277	417	531	1,934	244	457
\$500 - \$999	12,948	634	1,084	1,038	3,773	755	1,328
\$1,000 - \$1,499	8,767	500	911	669	3,070	826	1,219
\$1,500 - \$1,999	6,053	333	555	490	2,464	762	1,036
\$2,000 & Over	17,382	604	1,333	1,600	7,916	2,569	3,502
Totals	60,982	2,607	4,679	5,049	21,398	5,344	7,937

<sup>&</sup>lt;sup>1</sup> OPTIONS KEY

- 1. Life Annuity
- 2. Life Annuity guaranteed 5 years
- 3. Life Annuity guaranteed 10 years
- 4. Life Annuity guaranteed 15 years
- 5. Joint Annuity 100 percent to contingent survivor
- 6. Joint Annuity 66 2/3 percent to contingent survivor
- 7. Joint Annuity 50 percent to contingent survivor

Source: Buck Consultants, LLC

<b>HBS Monthly Benefits</b>	Members
\$1-199	64,770
\$200-299	3,308
\$300-399	280
\$400 & Over	0
Total	68,358

Source: ASRS Pension Administration System

LTD MONTHLY BENEFIT	MEMBERS
\$1-299	8
\$300-499	31
\$500-999	421
\$1,000-1,499	1,092
\$1,500-1,999	1,160
\$2,000 & over	1,934
TOTAL	4,646

Source: Sedgwick CMS

<sup>&</sup>lt;sup>2</sup> Most recent information available is 2012.

# **Average Benefit Payments Last 10 Fiscal Years**

				Year	s of Cre	dited S	ervice			
Retirement	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45+
FISCAL YEAR 2002										
Average Monthly Benefit	\$ 142	\$ 317	\$ 664	\$1,042	\$1,578	\$2,368	\$2,990	\$3,286	\$3,195	\$3,958
Number of Retirees	1,397	9,357	12,188	10,145	10,443	10,023	5,399	1,193	182	19
FISCAL YEAR 2003										
Average Monthly Benefit	\$ 149	\$ 328	\$ 695	\$1,068	\$1,571	\$2,312	\$2,957	\$3,314	\$3,535	\$4,335
Number of Retirees	1,555	9,744	12,811	10,568	11,103	10,838	6,477	1,373	203	25
FISCAL YEAR 2004										
Average Monthly Benefit	\$ 139	\$ 345	\$ 726	\$1,109	\$1,629	\$2,384	\$3,092	\$3,499	\$3,863	\$4,413
Number of Retirees	1,716	10,153	13,268	10,984	11,747	11,567	7,607	1,611	248	30
FISCAL YEAR 2005										
Average Monthly Benefit	\$ 125	\$ 326	\$ 687	\$1,742	\$1,995	\$2,460	\$2,894	\$3,035	\$3,082	\$2,817
Number of Retirees	1,697	10,290	13,540	19,674	16,813	8,394	2,815	550	77	3
FISCAL YEAR 2006										
Average Monthly Benefit	\$ 126	\$ 334	\$ 702	\$1,746	\$2,079	\$2,541	\$3,001	\$3,190	\$3,427	\$3,255
Number of Retirees	1,889	10,789	13,986	19,845	18,680	9,419	3,215	592	81	2
FISCAL YEAR 2007										
Average Monthly Benefit	\$ 121	\$ 329	\$ 697	\$1,743	\$2,101	\$2,572	\$3,034	\$3,268	\$3,616	\$4,542
Number of Retirees	2,124	11,416	14,534	20,663	20,232	10,474	3,454	615	78	4
FISCAL YEAR 2008										
Average Monthly Benefit	\$ 122	\$ 339	\$ 717	\$1,106	\$1,655	\$2,425	\$3,273	\$3,776	\$4,422	\$4,760
Number of Retirees	2,952	12,530	15,527	13,045	14,970	14,789	12,392	2,347	361	43
FISCAL YEAR 2009										
Average Monthly Benefit	\$ 195	\$ 339	\$ 715	\$1,105	\$1,663	\$2,435	\$3,321	\$3,862	\$4,453	\$4,845
Number of Retirees	3,385	13,236	16,321	13,658	15,995	15,587	13,314	2,499	380	49
FISCAL YEAR 2010										
Average Monthly Benefit	\$ 119	\$ 338	\$ 714	\$1,108	\$1,674	\$2,445	\$3,342	\$3,900	\$4,533	\$5,040
Number of Retirees	4,011	14,223	17,233	14,418	17,150	16,581	14,549	2,691	399	52
FISCAL YEAR 2011										
Average Monthly Benefit	\$ 121	\$ 339	\$ 716	\$1,111	\$1,681	\$2,457	\$3,368	\$3,944	\$4,661	\$5,134
Number of Retirees	4,420	15,231	18,329	15,157	18,371	17,557	15,608	2,840	426	57

<sup>&</sup>lt;sup>1</sup> Most recent information available.

Note: The above schedule does not include System retirees. Average final salary information is not available.

Source: Buck Consultants, LLC

# **Average Benefit Payments Last 7 Fiscal Years**

HBS		Year	s of Cr	edited	Servic	e
	5	6	7	8	9	10 or more
FISCAL YEAR 2006						
Average Monthly Benefit	\$ 65	\$ 71	\$ 81	\$ 86	\$ 103	\$ 130
Number of HBS Participants	1,008	861	872	869	895	47,117
FISCAL YEAR 2007						
Average Monthly Benefit	\$ 57	\$ 69	\$ 83	\$ 89	\$ 96	\$ 130
Number of HBS Participants	1,046	877	903	885	891	49,368
FISCAL YEAR 2008						
Average Monthly Benefit	\$ 61	\$ 72	\$ 76	\$ 89	\$ 97	\$ 130
Number of HBS Participants	1,082	917	911	934	897	51,167
FISCAL YEAR 2009						
Average Monthly Benefit	\$ 61	\$ 70	\$ 78	\$ 89	\$ 100	\$ 130
Number of HBS Participants	1,123	941	916	951	906	53,198
FISCAL YEAR 2010						
Average Monthly Benefit	\$ 61	\$ 67	\$ 76	\$ 86	\$ 97	\$ 127
Number of HBS Participants	1,149	941	928	998	924	54,589
FISCAL YEAR 2011						
Average Monthly Benefit	\$ 59	\$ 67	\$ 75	\$ 87	\$ 92	\$ 126
Number of HBS Participants	1,252	1,018	999	1,057	983	58,656
FISCAL YEAR 2012						
Average Monthly Benefit	\$ 64	\$ 74	\$ 78	\$ 96	\$ 100	\$ 144
Number of HBS Participants	1,352	1,074	1,087	1,094	1,045	62,706

Note: Information prior to 2006 is not available.

Source: ASRS Pension Administration System

# **Average Benefit Payments Last 7 Fiscal Years**

LTD	
FISCAL YEAR 2006	
Average Monthly Benefit	\$1,689
Number of LTD Participants	4,968
FISCAL YEAR 2007	
Average Monthly Benefit	\$1,743
Number of LTD Participants	4,976
FISCAL YEAR 2008	
Average Monthly Benefit	\$1,823
Number of LTD Participants	4,957
FISCAL YEAR 2009	
Average Monthly Benefit	\$1,886
Number of LTD Participants	4,672
FISCAL YEAR 2010	
Average Monthly Benefit	\$1,966
Number of LTD Participants	4,797
FISCAL YEAR 2011	
Average Monthly Benefit	\$1,931
Number of LTD Participants	4,785
FISCAL YEAR 2012	_
Average Monthly Benefit	\$1,240
Number of LTD Participants	4,646

Note: Long term disability payments are based on salary and not years of credited service. Information prior to 2006 is not available.

Source: Sedgwick CMS

# **Principal Participating Employers Current Year and Nine Years Ago**

		2012			2003	
Participating Employer	COVERED EMPLOYEES	RANK	% OF MEMBERSHIP	COVERED EMPLOYEES	RANK	% OF MEMBERSHIP
Dept Of Administration	26,998	1	12.60%	30,289	1	14.95%
Maricopa County	8,992	2	4.20%	9,467	3	4.67%
Mesa Unified Dist 4	8,466	3	3.95%	8,178	4	4.04%
Tucson Unified Dist 1	7,087	4	3.31%	7,416	5	3.66%
University Of Arizona	7,061	5	3.29%	7,047	6	3.48%
Maricopa County Community College District	6,729	6	3.14%	4,672	9	2.31%
Arizona State University	5,323	7	2.48%	4,843	8	2.39%
Pima County	5,274	8	2.46%	6,471	7	3.19%
Gilbert Unified Dist 41	4,647	9	2.17%			
Chandler Unified Dist 80	4,141	10	1.93%			
Maricopa County School Office				13,440	2	6.63%
Maricopa Country Health Services				4,069	10	2.01%
<sup>1</sup> All other	129,628		60.48%	106,754		52.68%
Total	214,346		100%	202,646		100.00%

<sup>1</sup> In 2012, "All Other" consisted	of:	
ТҮРЕ	NUMBER	<b>EMPLOYEES</b>
Public Schools	239	87,482
Charter Schools	148	4,691
Cities	80	17,192
Counties	13	8,040
Higher Education	10	5,698
Other	93	6,525
Total	583	129,628

Note: All participating employers participate in the retirement, HBS and LTD Plans.

Source: ASRS Pension Administration System



# ARIZONA STATE RETIREMENT SYSTEM

A Component Unit of the State of Arizona

# Visit ASRS Online at: www.azasrs.gov

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