

# Arizona State Retirement System A Component Unit of the State of Arizona

Comprehensive Annual Financial Report For the Year Ended June 30, 2004



#### 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
- Funded Status
- Investment Performance
- Operational Effectiveness

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

#### Values

Our organizational culture will be based upon the following Values:

Service:	A commitment to service excellence will permeate the organization.
Professionalism:	A highly capable workforce will promote a professional and respectful environment and lead 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 agency to ever greater achievement.
Results:	A results-oriented approach to operations will energize the organization.

Dr. Keith Meredith, Chair Mr. Karl L. Polen Jr., Vice Chair

# Report prepared by the Arizona State Retirement System staff

Paul Matson, Director



Comprehensive Annual Financial Report Fiscal Year Ended June 30, 2004

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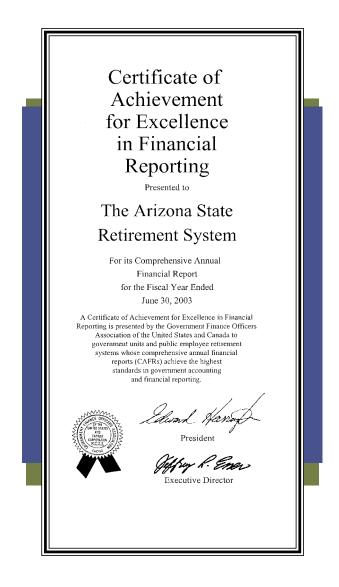
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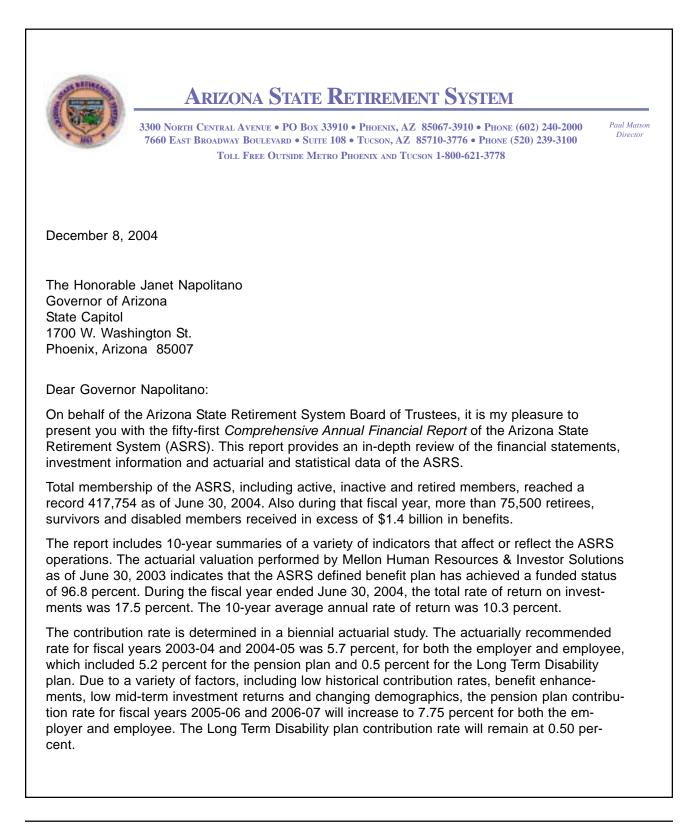
Introductory - adj. 1. Of, relating to, or constituting an introduction.
2. Serving to introduce.

# Certificate of Achievement for Excellence in 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 Arizona State Retirement System for its comprehensive annual financial report for the fiscal year ended June 30, 2003. This was the 15th consecutive year that the government has achieved this prestigious award.

# Letter From the Chairman



#### Letter From the Chairman

In order to both increase the funded status of the Plan as well as mitigate future increases in contribution rates, the ASRS has been engaged in significant program and policy review. While this is an on-going process - program, policy and legislative initiatives have been successfully implemented that have reduced total contributions to the ASRS by more than \$100 million per year, which is equivalent to approximately \$1.0 billion dollars in liability savings for the group of all current employees, or approximately \$2.4 billion in liability savings for the group of all current and future employees. These very significant savings will reduce future increases in contribution rates to both employees and employers by approximately 1.4% in total each year.

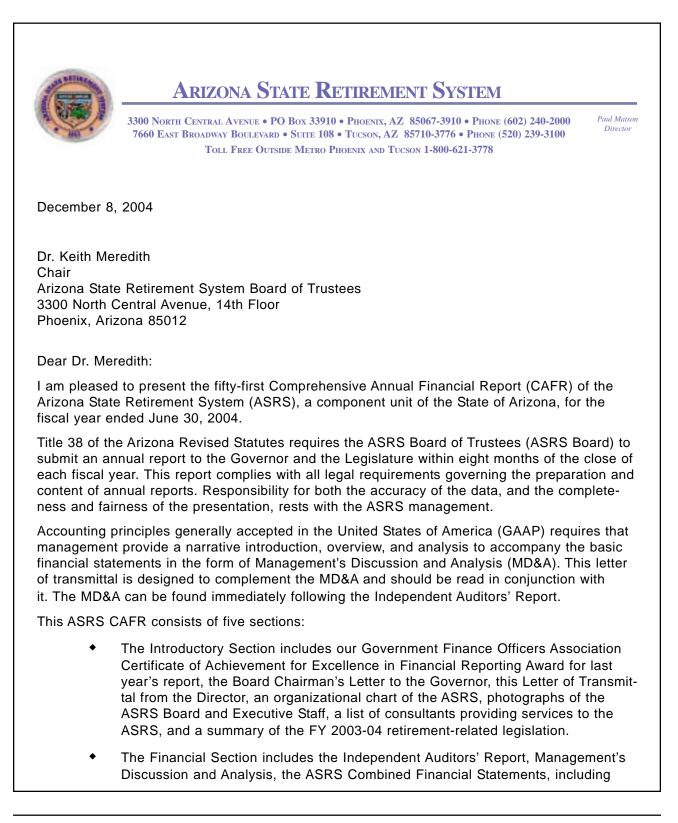
The ASRS Board is committed to prudent management of the Retirement System's assets for the benefit of our members. At the same time, we are aware of our responsibilities to the State of Arizona, its taxpayers, and our member employers.

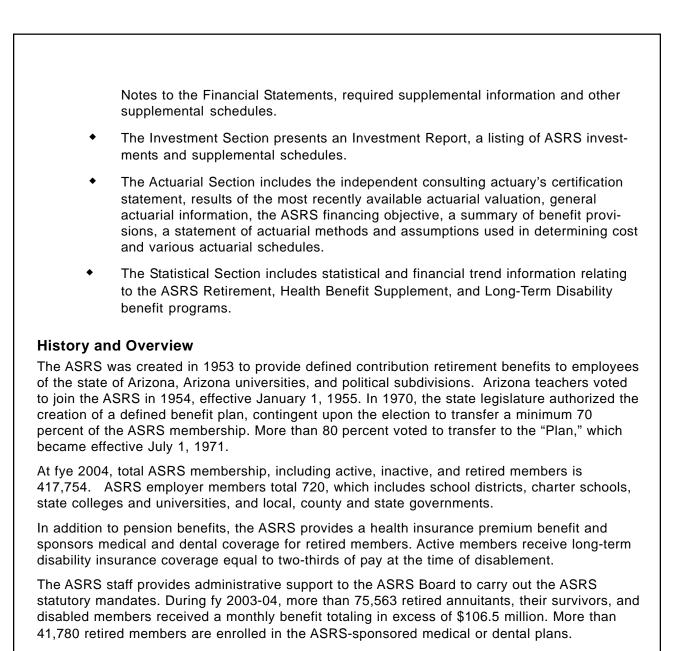
The Board of Trustees appreciates the cooperation extended to it by the Governor's Office and the State Legislature, which enables and empowers us to meet the challenges we face in today's economic climate.

The Board pledges to continue to administer the affairs of the Arizona State Retirement System in the most competent and efficient manner possible.

Respectfully submitted,

Dr. Keith Meredith Board Chair Arizona State Retirement System





#### Major Initiatives and Accomplishments Fiscal Year July 1, 2003 - June 30, 2004

Gov. Janet Napolitano appointed four Trustees to the ASRS Board. 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. There is no limit on the number of terms an ASRS Board Trustee may serve. During fy 2003-04, the following ASRS Board Trustees were appointed:

- Mr. Karl Polen, re-appointed as a representative of the public; term to expire on January 15, 2007.
- Mr. Jaime Guttierez, appointed as a representative of educators; term to expire on January 15, 2007.
- Ms. Anne Mariucci, appointed as a representative of the public, term to expire on January 15, 2007.
- Mr. Michael Townsend, appointed as a representative of political subdivisions, term to expire on January 17, 2005.

During fiscal years 2001, 2002, and 2003 the ASRS, as virtually all pension funds, experienced lower than expected investment returns. Additionally, in response to constituent requests, the state Legislature enhanced certain retirement benefits in fy 2001. These combined factors resulted in the ASRS contribution rate increase from 2.49 percent to 5.7 percent for fy 2003-04.

In an effort to reduce the upward pressure on contribution rates, the agency, with the full support of the ASRS Board, engaged in an equity and efficiency review of ASRS programs which resulted in some policy changes. In addition, during fy 2003-04 we provided technical assistance to the legislature during the drafting of several bills that were ultimately enacted into law. The new laws and major ASRS policy change are:

- House Bill 2029 requires the ASRS to base the cost to purchase service on actuarial present value (APV). An APV calculation reflects the true cost to the ASRS of providing benefits relating to the purchased service.
- House Bill 2052 requires employers to pay for the liability to the ASRS created by early retirement incentive programs.
- House Bill 2077 protects the ASRS LTD Trust from fraudulent activities.
- ASRS Service Purchase Deferrals Policy requires members to pay interest on service purchase payroll deduction agreements.

On January 16, 2004, the ASRS Board adopted the Board Governance Handbook. The Board adopted the Handbook because it recognizes that a sound governance structure is essential to fulfilling its duties and responsibilities. The Handbook provides orientation material for new ASRS Board Trustees as to the roles, responsibilities, structure, procedures, policies and activities in the governance and oversight of the ASRS. It also serves as an ongoing reference manual for the current ASRS Board and ASRS staff.

Throughout the latter half of fy 2003-04, The ASRS solicited input from senior management, staff, Trustees and ASRS members in order to develop an ASRS Vision and Values statements. This process culminated in the statements adoption by the ASRS Board on July 16, 2004. The new vision and values appear inside the front cover of this CAFR. The vision will serve as a touchstone against which all strategic decisions can be tested. The values will provide the parameters within which the ASRS operates.

#### **Investment Management**

Investment Management oversaw 27 externally managed portfolios and managed 6 portfolios internally. Of the 33 total portfolios, 12 external and 2 internal portfolios outperformed established benchmarks for investment returns for fy 2003-04. The total return of the ASRS' investment funds was 17.5 percent for fy 2003-04, outperforming the actuarial assumed rate of 8 percent by 9.5 percent.

In other Investment Management developments, the ASRS:

- Awarded contracts to two Global Tactical Asset Allocation portfolios. Several billion dollars of assets were transitioned by the ASRS Investment Management Division, which resulted in new exposure into this asset strategy.
- Transitioned assets from a passively-managed internal Mid Cap portfolio to an actively-managed external Mid Cap portfolio, which gained additional active exposure into this asset class.
- Awarded a contract to one Fixed Income Manager, which gained additional active exposure into this asset class.
- Concluded the total fund Asset Allocation Study which added institutional real estate as a new asset class.
- Hired a real estate consultant and staff to develop the real estate program.

#### Member Services

Member Services continues to focus on maintaining and/or improving levels of service. Some results of these efforts are:

- According to the fye June 30, 2004 Member Satisfaction Survey, 94 percent of members were either very satisfied or satisfied with the level of service provided through the Call Center.
- According to the fye June 30, 2004 Member Satisfaction Survey, 98 percent of members were either very satisfied or satisfied with the level of service provided by the Walk-In Centers in Phoenix and Tucson.
- Implemented imaging of member service purchase documents and master files.
- Implemented an automated work flow system for service purchase requests.

#### **External Affairs**

The External Affairs Division continued to focus on the key areas of employer relations, legislation, ASRS rules and policies, and external and internal communications in fy 2003-04.

One new position was added in fy 2003-04. A second Employer Liaison was hired to bolster the outreach efforts of the employer relations division.

In other developments, External Affairs:

- Continued to accept new employer members to the ASRS, averaging four per month.
- Conducted two dozen employer conferences throughout the state, reaching more than 600 representatives.
- Added a new series of training workshops specifically for new employer staff members.
- Pursued an aggressive review of ASRS rules, drafting new ASRS Board rules on a variety of topics and beginning the formal adoption process for several, which included a number of public meetings.
- Expanded the communication process with a growing list of electronic newsletter recipients, as well as publishing member and employer newsletters, a series of ASRS fact sheets, and other publications.
- Assisted with a review of ASRS documents and forms, resulting in a streamlining of the forms and processes used by our members for a variety of services.
- Updated and improved the ASRS website, including creating new on-line capabilities for calculating benefits and other information by members. A test-program from electronic on-line contributions from employers was launched.
- Facilitated outreach meetings for the ASRS Board , which provided members and the public an opportunity to learn more about the ASRS.

#### **Financial Services Division**

The ASRS continued to experience record numbers of new retirees and increased demands in most service areas for fy 2003-04. The Financial Services Division responded by re-engineering several of its processes. Some results of these efforts are:

- Processed over 6,300 new retirees without hiring seasonal, temporary staff.
- Eliminated the six month backlog of the final audit of new retiree benefits.
- Implemented an automated workflow system to process payroll deduction and lump sum service purchases.
- Began accepting employer contributions via Automated Clearing House (ACH) payments.

•	Awarded a contract for an automated financial accounting system which will eliminate many manual processes currently in place.
Administra	ative Services Division
	than one and one half years of public testimony on retiree health care, d analysis by select committees and the ASRS staff, we accomplished the follow-
•	PacifiCare of Arizona and ScriptSave, Inc., were awarded contracts to continue to provide medical and prescription drug discount card services plans to ASRS.
•	No increases in premiums or changes in ASRS retiree health care plan provisions through calendar year 2006.
•	Retirees enrolled in PacifiCare's Preferred Provider Organization (PPO) plan will have premiums reduced beginning January 1, 2005, and further reduced July 1, 2005, upon the expiration of the enhanced rural subsidy.
•	PacifiCare's Medicare+Choice HMO plan (renamed PacifiCare's Medicare Advan- tage Plan) service area will include Pinal County beginning January 1, 2005. The service area will expand to include La Paz, Yuma, Santa Cruz, Cochise, Graham and Greenlee Counties beginning July 1, 2005.
•	A vision benefit will be added to PacifiCare's Medicare Advantage and Senior Supplement plans.
•	The Silver Sneakers Fitness program will be extended to Non-Medicare eligible retirees beginning January 1, 2005.
	on Services Division 003-04, the ASRS:
bunng ry 20	Implemented the following legislation passed by the legislature:
·	<b>HB 2023</b> – Limits contributions not withheld to a 15 year look back period
	<ul> <li>HB 2023 – Elimits contributions not withheld to a 15 year look back period</li> <li>HB 2024 – Requires the ASRS to recalculate military service purchased prior to July 20, 1996</li> </ul>
	HB 2349 – Extended rural health insurance premium subsidy
	SB 1037 – Provides health insurance premium subsidy to contingent annuitant
•	Developed and implemented a service audit system which automates the verifica- tion and validation of credited service.

- Developed and implemented a service purchase system which automates the request, tracking and processing of the purchase of service by a member.
- Developed a web authentication system which allows member employees and employers to register through the ASRS web site to perform secure transactions with their account information.
- Developed and implemented an ACH system that allows employers to electronically submit contribution payments to the ASRS.

#### **Financial Information**

Responsibility for the accuracy, completeness and fair presentation of all financial information, as well as disclosures, rests with the ASRS. The basic financial statements have been prepared in accordance with GAAP applied on a consistent basis as promulgated by the Government Accounting Standards Board (GASB). The basic financial statements are presented in accordance with the guidelines established by GASB Statement No. 25, "Financial Reporting for Defined Benefit Plans", GASB Statement No. 34 "Basic Financial Statements-Management Discussion and Analysis for State and Local Governments" and other GASB statements as appropriate.

The ASRS financial statements are audited annually by an independent accounting firm. The current contract for external audit services is with Deloitte & Touche LLP. The auditors' report for this year is unqualified. It means that in the opinion of our independent auditor, our financial statements present fairly, in all material respects, the financial position of the ASRS for the period under audit, and the results of its operations for that period are in conformity with accounting principles generally accepted in the United States.

#### **Internal Control**

The management of the ASRS is responsible for maintaining a system of adequate internal controls. The system of internal controls at the ASRS is designed to provide reasonable assurance that the assets of the ASRS are protected and financial transactions are executed in accordance with state policy and statute, to ensure management's responsibility to the retirement fund, and to facilitate the timely preparation of financial statements in accordance with accounting principles generally accepted in the United States.

Control procedures and responsibilities are documented and reviewed periodically by the ASRS Internal Audit Department. The Chief Auditor submits all audit reports to the ASRS Operations Review Committee. An audit plan is prepared biennially based on a risk analysis performed by the Internal Audit Department.

The Operations Review Committee, the members of which are appointed by the ASRS Board Chairman, monitors operations and controls throughout the year.

#### **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. Funds are managed by internal and external investment money managers. The total portfolio is kept diversified between broad asset classes of U.S. equities, U.S. fixed income, international equities and real estate.

The overall rate of return of the ASRS investment funds was 17.5 percent for fy 2003-04.

The ASRS adheres to all statutory requirements set forth by Arizona state law, which applies upper limits to the portions of the fund that may be invested in real estate, any single entity, international equities, or total equities. The ASRS has also established investment guidelines for its 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 audit procedures are in place. Oversight and direction responsibilities are ensconced with the ASRS Board. Details of investments are contained in the Investment Section of this report.

#### Budget

All expenditures of the ASRS are appropriated by the Arizona State Legislature with the exception of investment fees, consulting fees necessary to meet the ASRS Board's investment objectives, rent and retiree payroll. For fy 2003-04, the ASRS had an appropriated budget of approximately \$24 million.

#### 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 and a biennial actuarial determination of contribution rates. According to the ASRS' most recently available actuarial valuation, dated June 30, 2003, the actuarial value of plan assets was \$23.52 billion and the actuarial accrued liability was \$24.3 billion. The unfunded actuarial accrued liability of \$787 million results in an actuarial funding ratio of 96.8%. The change in funding percentage from last year's 104.6% is primarily due to continued recognition of investment losses for fiscal years 2001, 2002 and 2003.

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 Required Supplementary Information, Schedule of Funding Progress.

In order to both increase the funded status of the Plan as well as mitigate future increases in contribution rates, the ASRS has been engaged in significant program and policy review. While this is an on-going process - program, policy and legislative initiatives have been successfully implemented that have reduced total contributions to the ASRS by more than \$100 million per year, which is equivalent to approximately \$1.0 billion dollars in liability savings for the group of all current employees, or approximately \$2.4 billion in liability savings for the group of all

current and future employees. These very significant savings will reduce future increases in contribution rates to both employees and employers by an average of approximately 1.4% in total each year.

#### 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, 2003. The ASRS has received the GFOA Certificate of Achievement for Excellence in Financial Reporting in each of the last 15 years.

To be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized CAFR, whose contents meet or exceed program standards. This report must satisfy both GAAP 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.

#### Acknowledgments

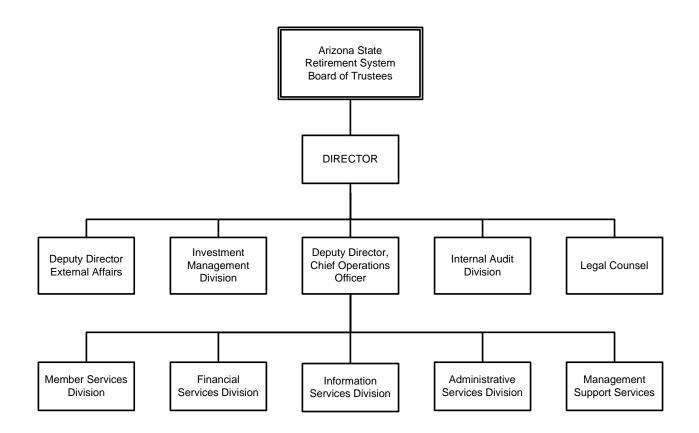
This report represents the culmination of hours of hard work by the ASRS General Accounting and External Affairs staff. It is intended to provide complete and reliable information for decision making, to insure compliance with legal requirements, and is a means of measuring the responsible stewardship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

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, the entire staff of the ASRS and many other individuals, has been instrumental in maintaining the quality of service and performance which has become the standard for the ASRS.

Respectfully submitted,

Paul Matson Director

# **Organizational Chart**

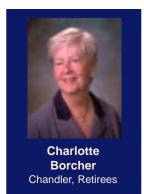


# Dr. Keith Meredith Chair Member at Large, Tucson

# **ASRS Board of Trustees**



Karl L. Polen Jr. Vice-Chair Phoenix, Public



Jim Bruner Scottsdale, Public



Trachtenberg Scottsdale, Public



Phoenix, State Employees



Jaime Gutierre: Tucson, Educators



**Michael Townsend** Flagstaff, Political Subdivisions



Public

# **Executive Staff**



# **Outside Professional Services**

# ACTUARY

Mellon Human Resources & Investor Solutions Phoenix, AZ

#### LONG TERM DISABILITY BENEFITS

*VPA* Calabasas, CA

# **CUSTODIAL BANK**

Mellon Global Securities Services Pittsburgh, PA

#### **INDEPENDENT AUDITORS**

Deloitte & Touche LLP Phoenix, AZ

# **INVESTMENT ADVISORS**

William M. Mercer Investment Consulting, Inc. Los Angeles, CA

> Callan Associates, Inc. San Francisco, CA

#### **INVESTMENT MANAGERS**

Investment managers are listed in the Schedule of Broker Commissions on page 73

#### Summary of 2004 Retirement Legislation

#### House Bill (HB) 2029 - Service Purchase

- Changes the ASRS calculation method used to determine military, other public service or leave of absence service credit from "normal cost" to "actuarial present value."
- Prohibits the purchase of credited service for time employed in a prison while the member was incarcerated.
- Increases the amount of credited service an active member may receive for active military duty from 48 to 60 months (conforms to Uniformed Services Employment and Reemployment Rights Act).
- Allows a member to use accrued vacation and sick leave compensation paid at termination to purchase service credit on a pre-tax basis.
- Stipulates that the cost of service purchase is based on the greater of the contribution rate or the normal cost in effect at the time of the purchase.
- Excludes service purchase monies from member contributions that are doubled to pay survivor benefits.
- Stipulates that, at the time of employment termination, an employee's accrued vacation, sick leave or overtime pay used to purchase additional service time is nontaxable.
- Permits the purchase of credited service using 401(a) or 403(a) plans through a trustee-to-trustee transfer.
- Makes technical and conforming changes.
- Effective August 25, 2004.

#### HB 2052 - Retirement Incentive Costs

- Requires an ASRS member employer to pay the amount of the unfunded liability to the ASRS if the employer implements a retirement incentive program that creates an unfunded liability to the ASRS.
- Requires the ASRS to determine the amount of unfunded liability through consultation with its actuary.
- Requires an employer to notify the ASRS if the employer intends to implement a retirement incentive program that may affect ASRS funding.
- Establishes guidelines for the ASRS to collect monies resulting from any unfunded liability.
- Defines "retirement incentive program."
- Effective July 1, 2005.

#### Summary of 2004 Retirement Legislation

#### HB 2077 - Long Term Disability

- Requires existing employees of new employers to meet the 12-month pre-existing condition limitations that new employees of existing employers are required to meet.
- States that a member will no longer receive benefits if the member refuses to participate in a work rehabilitation program for which the member is reasonably qualified by education, training or experience and that is requested by the insurance company or claims administrator.
- Clarifies that LTD benefits shall be reduced by both primary and dependent Social Security benefits received by the member.
- Requires members eligible for LTD benefits to pursue obtaining Social Security benefits through the appeals process or until the insurance company or claims administrator determines that the member would not be eligible for Social Security disability benefits.
- Modifies the criteria for a member to be considered totally disabled to mean the member has received monthly benefits for 24 months within a five-year period.
- Allows a member on the LTD program to elect to rely on treatment by prayer through spiritual means in accordance with the tenets and practice of a recognized church or religious denomination or Native American traditional medicine without suffering a reduction or suspension of LTD benefits.
- Prohibits an ASRS member convicted of a criminal offense and sentenced to more than six months in any penal institution from receiving LTD benefits for the period of confinement beginning the first day of the month following the first 30 days continuous of the member's confinement.
- Makes technical and conforming changes.
- Effective August 25, 2004.

#### HB 2078 - Asset Management

- Modifies the requirements for qualifications of investment managers to include those with no less than three years experience handling institutional investments of at least \$250 million and no less than \$250 million currently under management.
- Effective August 25, 2004.

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#### Independent Auditor's Report

# Deloitte.

Deloitte & Touche LLP Suite 1200 2901 N. Central Avenue Phoenix, AZ 85012-2799

USA

Tel: +1 602 234 5100 Fax: +1 602 234 5186 www.deloitte.com

Audit Committee of the Arizona State Retirement System Board and Auditor General of the State of Arizona Phoenix, Arizona

We have audited the accompanying basic financial statements of the Arizona State Retirement System ("ASRS") as of and for the year ended June 30, 2004, as listed in the foregoing table of contents. These financial statements are the responsibility of the ASRS's management. Our responsibility is to express an opinion on the respective financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the respective 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 opinions.

In our opinion, such financial statements present fairly, in all material respects, the net assets of the ASRS as of June 30, 2004, and the changes in its net assets for the year then ended in conformity with accounting principles generally accepted in the United States of America.

The Management's Discussion and Analysis as listed in the table of contents is not a required part of the basic financial statements but is supplementary information required by the Governmental Accounting Standards Board. This supplementary information is the responsibility of ASRS's management. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit such information and we do not express an opinion on it.

Our audit was conducted for the purpose of forming and opinion on ASRS's respective financial statements that collectively comprise ASRS's basic financial statements. The

#### **Independent Auditor's Report**

Introductory Section, Required Supplementary Information and Additional Supplemental Schedules, Investment Section, Actuarial Section and Statistical Section as listed in the foregoing table of contents are also presented for the purposes of additional analysis and are not required part of the basic financial statements. The Required Supplementary Information and Additional Supplemental Schedules as listed in the foregoing table of contents under the Financial Section have been subjected to the auditing procedures applied by us in the audit of the basic financial statements and, in our opinion, are fairly stated in all material respects in relation to the basic financial statements taken as a whole. The Introductory Section, Investment Section, Actuarial Section and Statistical Section have not been subjected to auditing procedures applied in our audit of the basic financial statements and, in our opinion, and Statistical Section have not been subjected to auditing procedures applied in our audit of the basic financial statements applied in our audit of the basic financial statements applied in our audit of the basic financial statements applied in our audit of the basic financial statements applied in our audit of the basic financial statements and, accordingly, we express no opinion on them.

October 29, 2004

Member of Deloitte Touche Tohmatsu

This 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, 2004. 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' CAFR, and the basic financial statements and notes to the basic financial statements presented in the Financial Section of the CAFR.

#### **Financial Highlights**

An upturn in the global securities markets during the fiscal year led to an increase in the ASRS rate of return on investments and ASRS combined net assets. Financial highlights that follow reflect the stronger global securities market.

- The ASRS rate of return on investments for fy 2004 was 17.5 percent compared to 2.4 percent for fy 2003. The increase in the rate of return is due to an upturn in the global securities markets during the fiscal year.
- The ASRS combined total net assets had increased by 14.42 percent at fye June 30, 2004. The increase in the net assets is due to an upturn in the global securities markets during the fiscal year.
- The ASRS received a total of \$827 million in employee and employer contributions during fy 2004 compared to \$354 million in fy 2003. The 134 percent increase is due primarily to a contribution rate increase from 2.49 percent in fy 2003 to 5.7 percent in fy 2004.
- The ASRS paid \$1.4 billion in pension, disability, health insurance and survivor benefits during fy 2004 compared to \$1.2 billion in fy 2003. The 16.7 percent increase is due to an increase in retirements, number of deaths and enhanced retirement benefits such as the optional partial lump sum disbursement.
- As of June 30, 2003, the most recent actuarial valuation, the Retirement and Health Benefit Supplement Funds combined were 96.8 percent funded. This compares to a combined funding ratio of 104.6 percent as of June 30, 2002. The change in funding percentage is primarily due to continued recognition of investment losses for fiscal years 2001, 2002 and 2003.

#### **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 comprise the following components: 1) basic financial statements, 2) notes to the basic financial statements, 3) required supplementary information and 4) other supplementary schedules. Collectively, this information presents the combined net assets held in trust for pension benefits for each of the funds administered by the ASRS as of June 30, 2004. 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, 2004, financial statements are presented for the funds administered by the ASRS. These fiduciary funds are used to account for resources held for the benefit of the ASRS members.

- The combined statement of plan net assets is presented as of June 30, 2004 with combined total comparative information as of June 30, 2003. These financial statements reflect the resources available to pay benefits to members, including retirees and beneficiaries, at the end of the years reported. Investments totaled \$24.3 billion at fye 2004 compared to \$21.6 billion at fye 2003. The 12.5 percent increase was primarily due to an upturn in the global securities markets. Receivables of \$2.2 billion reflect a 425 percent increase of 59 percent compared to \$3.2 billion last year. These increases result from two new external investment managers brought on during the year which trade heavily in forward/futures contracts. In addition, an existing external investment manager was given authorization to utilize forward/futures contracts during fy 2004.
- The combined statement of changes in plan net assets is presented for the year ended June 30, 2004 with comparative information for the year ended June 30, 2003. These financial statements reflect the changes in resources available to pay benefits to retirees and other beneficiaries for the fy 2004 and 2003.

**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. Information in the notes to the basic financial statements is described below.

- Note 1 provides a general description of ASRS, as well as descriptions of the funds, reporting relationships, the participating employers and the benefits administered.
- Note 2 provides a summary of significant accounting policies, including the basis of accounting, new accounting pronouncements, investment accounting policies, management use of estimates, tax status and comparative data.
- Note 3 describes information about cash, investments, investing authority, and investment risk categories.
- Note 4 describes the security lending program.
- Note 5 describes derivatives and the investment managers' use of derivatives.
- Note 6 provides information about the actuarial assumptions, funding status and progress for the defined benefit program.
- Note 7 provides information about the contributions required and made to the ASRS.

- Note 8 describes the additional benefits of the health insurance premium benefit program and the long term disability program.
- Note 9 describes information about contingent liabilities.
- Note 10 describes transfers to and from other funds.
- Note 11 describes required supplementary schedules.
- Note 12 describes employees' retirement benefit plan.
- Note 13 describes events that occurred subsequent to fiscal year end June 30, 2004 but prior to issuance of the financial statements.

**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) Other 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, cash receipts and cash disbursements, professional and investment expenses.

#### Financial Analysis of the ASRS Funds

The ASRS administers retirement, health and long term disability benefits for teachers and 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, 2004 were \$21.4 billion a 14.4 percent increase from \$18.7 billion at June 30, 2003. The increase in net assets is primarily due to an upturn in the global securities markets during the fiscal year. A contribution rate increase from 2.49 percent to 5.7 percent, put into effect during fy 2004, also contributed to the increase in net assets. The retirement fund net assets were \$20.5 billion compared to \$17.9 billion last year, a 14.5 percent increase. The HBS fund net assets were \$808 million at year end compared to \$698 million in fye 2003, a 15.8 percent increase. The LTD fund net assets were \$138 million at year end compared to \$110 million last year, a 25.5 percent increase.

**Changes in Net Assets.** For the 2004 fiscal year, employer and member contributions totaled \$827 million, a 133 percent increase over the 2003 fiscal year contributions of \$354 million. A contribution rate increase from 2.49 percent to 5.7 percent, put into effect during fy 2004, is primarily responsible for the increased contributions.

For fy 2004, the ASRS recognized net investment income of \$3.2 billion which compares to net investment income of \$369 million in the previous year. This 767 percent increase in investment

income is primarily due to an increase in the rate of return in the U.S. stock market.

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 2004 fiscal year, pension, disability, health insurance and survivor benefits totaled \$1.4 billion, an increase of 16.7 percent from the \$1.2 billion paid during fy 2003. Pension payments totaled \$1.2 billion in fy 2004 compared to \$1 billion in the previous year. The 20 percent increase is explained by a 6.7 percent increase in retirees, 70,878 compared to 66,400 in 2003, and the new partial lump sum benefit which allows members to take up to 36 months of retirement payments in a lump sum at retirement. Partial lump sum payments totaled \$58 million for the 2004 fiscal year compared to \$30 million last year. Refunds and transfers to other plans totaled \$38.5 million dollars in 2004, an 11 percent decrease from the \$43.4 million paid out in 2003. For fy 2004, the cost of administering the ASRS benefits totaled \$26.8 million, an increase of approximately 11 percent from the \$24.2 million paid in fy 2003. This increase is due primarily to increased salary expenditures relating to the hiring of 24 additional employees and the purchase of new computer equipment.

The following tables shows the principal ASRS net assets and changes in net assets for fiscal years 2004 and 2003, in thousands of dollars:

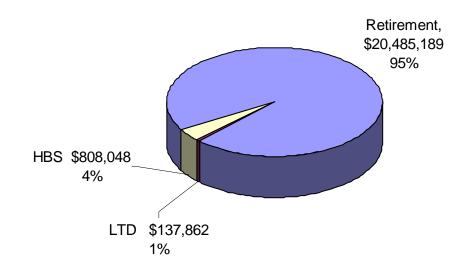
	2004	2003	Change	% Change
Assets			U	U
Cash and receivables	\$2,232,468	\$433,978	\$1,798,490	414.42%
Investments at fair value	22,049,392	19,325,696	2,723,696	14.09%
Security lending	2,289,996	2,248,014	41,982	1.87%
Total assets	26,571,856	22,007,688	4,564,168	20.74%
Liabilities				
Payables for investments	2,850,761	1,029,796	1,820,965	176.83%
Securities Lending	2,289,996	2,248,004	41,992	1.87%
Total Liabilities	5,140,757	3,277,800	1,862,957	56.84%
Total Net Assets	\$21,431,099	\$18,729,888	\$2,701,211	14.42%

#### Net Assets- ASRS

#### **Changes in Net Assets - ASRS**

	2004	2003	Change	% Change
Additions				
Employee contributions	\$413,462	\$177,157	\$236,305	133.39%
Employer contributions	413,458	177,156	236,302	133.39%
Service credit purchase and transfers in	113,944	93,552	20,392	21.80%
Investment and security lending income	3,280,722	416,219	2,864,503	688.22%
Investment and security lending expense	(51,937)	(47,587)	(4,350)	9.14%
Total	4,169,649	816,497	3,353,152	410.68%
Deductions				
Benefits	1,381,622	1,206,703	174,919	14.50%
Death benefits	14,859	15,861	(1,002)	(6.32%)
Refunds and transfers	38,548	43,433	(4,885)	(11.25%)
Administration and other	33,409	30,421	2,988	9.82%
Total	1,468,438	1,296,418	172,020	13.27%
Net Change	2,701,211	(479,921)	3,181,132	663.84%
Net assets beginning of year	18,729,888	19,209,809	(479,921)	(2.5%)
Net assets end of year	\$21,431,099	\$18,729,888	\$2,701,211	14.42%

#### Net Assets by Fund - June 30, 2004



**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, 2003.

At June 30, 2003 the total funded status of the ASRS retirement and health benefit supplement funds decreased to 96.8 percent from 104.6 percent at fye 2002. At fye 2003 ASRS actuarial liabilities exceeded actuarial assets for the retirement and health benefit supplement funds by \$787 million. This compares to an excess of actuarial assets over actuarial liabilities of \$1 billion at fye 2002. This decrease in funded status is related primarily to recognition of investment losses in fiscal years 2001, 2002 and 2003 and to a change in actuarial assumptions.

**Investments**. During the fy 2004, the ASRS funds remained broadly diversified with investments in domestic and international equities, domestic fixed income, and cash equivalent securities. According to statutory restrictions, no more than 80 percent of the fund may be allocated to domestic and international equity securities, and no more than 20 percent of the fund may be allocated solely to international equity securities.

The Retirement and HBS funds are combined in a commingled investment pool. Investment income is allocated to the HBS Fund in accordance with its respective ownership share of the total investment pool. The LTD investments are held in a separate fund.

At June 30, 2004, the ASRS held total investments of \$24.3 billion, an increase of \$2.8 billion from fye 2003. The \$2.8 billion increase in total investments is primarily due to an upturn in the global securities markets. The combined investment portfolio experienced a return of 17.5 percent compared to the benchmark return of 15.7 percent. The interim benchmark is comprised of 56 percent S&P 500, 28 percent Lehman Brother Aggregate and 16 percent MSCI EAFE indices.

At June 30, 2004, the ASRS held \$11.8 billion in domestic equities and \$3.8 billion in international equities, an increase of 12.4 percent in domestic equities and a 22.6 percent increase in international equities from fye 2003. The fy 2004 rate of return for ASRS domestic equities was 22.2 percent compared to (.10) percent in fy 2003 reflecting an upturn in the domestic equity markets. The ASRS domestic equities benchmark, S&P 500, had a return of 19.1 percent for fy 2004.

The fy 2004 rate of return for ASRS international equities was 34.3 percent compared to (6.3) percent in fy 2003, reflecting the upturn in the international equity markets. The ASRS international equities benchmark, MSCI EAFE, had a rate of return of 32.9 percent for fy 2004. The benchmarks for both domestic and international equities are representative of the returns that could be expected in a similar investing environment.

At June 30, 2004, the ASRS held \$5.6 billion in domestic fixed income securities, an increase of \$700 million from fye 2003. The rate of return was 0.2 percent compared to 10.7 percent in the previous year, reflecting the flattening of performance in the fixed income markets. The ASRS domestic income benchmark, the Lehman Aggregate, had a rate of return of 0.3 percent for fy 2004. This benchmark is representative of the returns that could be expected in a similar investing environment.

The ASRS earns additional investment income by lending investment securities to brokers. This is done on a pooled basis by our custodial bank, Mellon Trust. The brokers provide collateral and generally use the borrowed securities to cover short sales and failed trades. Security lending income for fy 2004 was \$6.6 million compared to \$5.7 million for fy 2003.

Additional information is available upon request. Please direct your request to the ASRS, 3300 North Central Ave., Phoenix, AZ 85012.

# Combined Statement of Plan Net Assets June 30, 2004 with Comparative Totals for 2003

(Dollars in Thousands)

	Retirement Fund	Health Benefit Supplement Fund	Long-Term Disability Fund	Com	bined
		(Note 8)	(Note 8)	2004	2003
ASSETS:					
Cash (Note 3)	\$14,144	\$-	\$5,001	\$19,145	\$15,099
RECEIVABLES:					
Accrued interest & dividends	62,716	2,470	-	65,186	63,945
Securities sold (Note 3)	297,518	11,717	-	309,235	336,946
Forward contracts (Note 5)	1,748,805	68,874	-	1,817,679	6,818
Contributions (Note 7)	15,107	1,763	1,604	18,474	7,232
Due from Other Funds		-	1,030	1,030	2,133
Miscellaneous	1,311	402	6	1,719	1,805
Total Receivables	2,125,457	85,226	2,640	2,213,323	418,879
INVESTMENTS AT FAIR VALUE (Note 3):					
Temporary investments	1,917,927	75,535	-	1,993,462	1,081,982
Temporary investments from					
securities lending collateral (Note 4)	2,203,225	86,771	-	2,289,996	2,248,014
U.S.government obligations	2,987,889	117,674	38,000	3,143,563	3,352,902
Corporate bonds	2,121,192	83,540	-	2,204,732	1,454,699
Common and preferred stocks	14,035,659	552,773	92,428	14,680,860	13,405,901
Real estate mortgages & contracts	25,760	1,015	-	26,775	30,212
Total investments	23,291,652	917,308	130,428	24,339,388	21,573,710
TOTAL ASSETS	25,431,253	1,002,534	138,069	26,571,856	22,007,688
LIABILITIES:					
Payable for securities purchased (Note 3) Payable for securities lending	982,992	38,714	-	1,021,706	1,017,264
collateral (Note 4)	2,203,225	86,771	-	2,289,996	2,248,004
Forward contracts payable (Note 5)	1,752,025	69,001	-	1,821,026	6,801
Due to Other funds	1,030	-	-	1,030	2,133
Other	6,792	-	207	6,999	3,598
Total Liabilities	4,946,064	194,486	207	5,140,757	3,277,800
NET ASSETS HELD IN TRUST					
FOR PENSION BENEFITS:	\$20,485,189	\$808,048	\$137,862	\$21,431,099	\$18,729,888
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(A schedule of Funding Progress is presented on page 46) The accompanying notes are an integral part of these statements.

# Combined Statement of Changes in Plan Net Assets for the Year Ended June 30, 2004 with Comparative Totals for 2003

	, (Dollars in Tl	nousands)				
		Health Benefit		Com	bined	
	Retirement	Supplement Fund	-			
	Fund	(Note 8)	Fund (Note 8)	2004	2003	
ADDITIONS		(1010-0)	(1010-0)	2004	2003	
Contributions:	•		•	• • • • • • •	•	
Member contributions (Note 7)	\$377,436		\$36,026	\$413,462	\$177,157	
Employer contributions (Note 7)	297,770	79,662	36,026	413,458	177,156	
Transfers from other plans	1,906	-	-	1,906	1,984	
Member reimbursements	112,038	-	-	112,038	91,568	
Total Contributions	789,150	79,662	72,052	940,864	447,865	
Income from investment activities:						
Net appreciation (depreciation) in fair						
value	2,693,993	99,995	17,059	2,811,047	(51,437)	
Interest	230,749	8,565	41	239,355	269,664	
Dividends	184,034	6,831	-	190,865	156,929	
Real estate Other	6,709	249 98	-	6,958 3,826	7,774	
	3,728		- 17 100		2,840	
Total income from investment activities Less investment activity expenses: Investment	3,119,213	115,738	17,100	3,252,051	385,770	
management fees and						
monitoring services	23,936	888	-	24,824	17,278	
Realestate	4,880	181	-	5,061	5,523	
Total investment activity expenses	28,816	1,069	-	29,885	22,801	
Net income from investment activities	3,090,397	114,669	17,100	3,222,166	362,969	
From securities lending activities (Note 4):						
Security loan program	27,644	1,026	-	28,670	30,449	
Security loan interest expense	21,262	789	-	22,051	24,786	
Net income from securities						
lending activities	6,382	237	-	6,619	5,663	
Total net investment income	3,096,779	114,906	17,100	3,228,785	368,632	
TOTAL ADDITIONS	3,885,929	194,568	89,152	4,169,649	816,497	
	0,000,020	,	00,.02	.,,	0.0,.0.	
DEDUCTIONS						
Retirement and disability benefits Survivor benefits	1,238,966	83,680	58,976	1,381,622	1,206,703	
Refunds to withdrawing members,	14,859	-	-	14,859	15,861	
including interest	36,212	-	-	36,212	35,976	
Administrative expenses	23,466	853	2,515	26,834	24,182	
Transfers to other plans	2,336	-	-	2,336	7,457	
Other	6,482	93	-	6,575	6,239	
TOTAL DEDUCTIONS	1,322,321	84,626	61,491	1,468,438	1,296,418	
NET INCREASE (DECREASE)	2,563,608	109,942	27,661	2,701,211	(479,921)	
NET ASSETS HELD IN TRUST FOR PENSION BENEFITS:						
Beginning of year	17,921,581	698,106	110,201	18,729,888	19,209,809	
End of year	\$20,485,189	\$808,048	\$137,862	\$21,431,099	\$18,729,888	

The accompanying notes are an integral part of these 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, 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 of the Arizona Revised Statutes (A.R.S.).

The ASRS administers the Arizona State Retirement System (the System) and the Arizona State Retirement Plan (the Plan). The System was established by the Arizona Legislature in 1953 to provide retirement and other benefits for state employees and teachers, together with 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 to be covered by the Arizona State Retirement System 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 Arizona State Retirement System.

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 Arizona State Retirement 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.

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

**Contributions** – Participating employers and their employees contribute percentages of employees' salaries for retirement annuities and survivor annuities in accordance with Arizona Revised Statutes. Contributions are excluded from employees' gross income for federal and state income tax purposes. Employers collect contributions from the employees, add their matching share and remit the total amounts to the Plan.

State statutes allow the purchase of eligible service credit for which no benefit could be paid by another qualified plan. Purchasable services include military service, previously forfeited service under ASRS and other public service employment.

At June 30, 2004, the number of participating employers and employees totaled:

EMPLOYER REPORTING UNITS:	
School Districts	233
Charter Schools	177
Cities and Towns	70
Counties	14
Special Districts	68
Community College Districts	10
Universities	3
State Government	1
TOTAL **	576
TOTAL ** EMPLOYEE MEMBERS:	576
	<b>576</b> 70,878
EMPLOYEE MEMBERS:	
EMPLOYEE MEMBERS: Retirees (including Beneficiaries)	70,878
EMPLOYEE MEMBERS: Retirees (including Beneficiaries) Non Active Fully Vested	70,878 136,618
EMPLOYEE MEMBERS: Retirees (including Beneficiaries) Non Active Fully Vested Long-Term Disability recipients	70,878 136,618

\* Plan members are deemed fully vested when retirement contributions are made.

\*\* The 576 Employer Reporting Units represent 720 total employers.

**Benefits** – The Plan provides benefits under formulas and provisions described in state law. Benefits and administrative expenses are paid from funds contributed by members and employers and from earnings on the invested funds. The Plan provides for retirement, disability, health insurance premium benefits, and death 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 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, or (c) the first day that the sum of their age plus total credited service equals 80. The benefit is based on a percentage of average monthly compensation multiplied by the years of service credit.

The years of service credit is a graded multiplier based on years of service according to the following schedule: 0-19.99 years – 2.1 percent, 20-24.99 years – 2.15 percent, 25-29.99

years – 2.2 percent, 30 or more years of service 2.3 percent. Average monthly 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. 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. Members who began participation in the Plan prior to January 1, 1984, may choose to have average monthly compensation determined 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 at a reduced retirement benefit.

Effective July 1, 1988, members of the Plan 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. A participant continues to earn service credit up to their normal retirement date. For those on disability after June 30, 1999, the years of service credited can not exceed the greater of 30 years or the total years of service credited on the start of their disability.

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. A detailed explanation of both 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 8 percent. Members can receive a percentage of employer contributions to the plan based on years of service as follows:

- 5 to 5.9 years of service 25 percent of employer contributions
- 6 to 6.9 years of service 40 percent of employer contributions
- 7 to 7.9 years of service 55 percent of employer contributions
- 8 to 8.9 years of service 70 percent of employer contributions
- 9 to 9.9 years of service 85 percent of employer contributions
- 10 or more years of service —100 percent of employer contributions

Withdrawal of such 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 in accordance with accounting principles generally accepted in the United States of America, 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. Employee contributions are recognized in the period in which contributions are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. 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 plan.

Investment income is recognized when earned and refunds and other expenditures are recorded when incurred.

**New Accounting Pronouncements** – In March 2003, the Governmental Accounting Standards Board (GASB) issued Statement No. 40, *Deposit and Investment Risk Disclosures*. GASB No. 40 amends GASB No. 3, *Deposits with Financial Institutions, Investments (including Repurchase Agreements), and Reverse Repurchase Agreements* by expanding the disclosure requirements for credit risk, interest rate risk and foreign currency risk.

In November 2003, GASB issued Statement No. 42, Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries.

In May 2004, GASB issued Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans.* GASB Statement No. 43 addressed the financial reporting for other postemployment benefits plans.

In June 2004, the GASB issued Statement No. 44, *Economic Condition Reporting: The Statistical Section*. The adoption of GASB Statement No. 44 will require some additional information and schedules in the statistical section of the Comprehensive Annual Financial Report (CAFR).

In August 2004, GASB issued Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. GASB No. 45 required employer governments to account for and report annual cost of other postemployment benefits in the same manner as they do for pensions.

The effective date of these statements ranges from fiscal years beginning after June 15, 2004 to fiscal years beginning after December 15, 2006. None of these statements are effective for the current fiscal year.

The ASRS has not completed its evaluation of the above statements but does not believe these statements will have an impact on its net assets available for pension benefits or changes therein.

*Investments* – Investments include U.S. government and government agency obligations, real estate, commercial mortgages, corporate bonds and equity securities.

Investments other than commercial mortgages are reported at fair values determined by the custodial agents. The agents' determination of fair values includes, among other things, using pricing services or prices quoted by independent brokers at current exchange rates.

Commercial mortgages have been valued on an amortized cost basis, which approximates fair value. No allowance for loan loss has been provided as all loans are considered by management to be fully collectible. 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 its 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. The fair value of real estate investments is based on independent appraisals or estimated value.

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

Net investment income includes net appreciation (depreciation) in the fair value of investments, interest income, dividend income and total investment expense, which includes investment management and custodial fees 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.

HBS and retirement investments are pooled. Realized and unrealized gains, interest and dividends are allocated monthly based on net investment balances at the end of the month.

*Fixed Assets* – The ASRS does not record property and equipment (principally office furniture and fixtures) as assets, but includes the cost of such items in administrative expenses in the year purchased due to the insignificant total cost.

**Federal Income Tax Status** – During the year ended June 30, 2004, 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, 2003, which is the latest available information. Significant actuarial assumptions used in the valuations are included in the notes to the required supplemental schedules.

**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.

**Risks and Uncertainties** – ASRS utilizes various investment instruments including U.S. Government Securities, corporate debt instruments, and corporate stocks. Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the basic statements of net plan assets.

**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, 2003, from which the summarized information was derived. Certain 2003 amounts have been reclassified to conform to the 2004 presentation.

# 3. Cash and Investments

*Cash* – At June 30, 2004, the carrying amount of the ASRS' cash deposits with financial institutions was \$19,145,000 and the bank balance was \$6,084,016. Of the bank balance as of June 30, 2004, \$100,000 was covered with federal depository insurance funds (category 1) and \$5,984,016 was collateralized with securities held by the pledging bank's trust department in the ASRS' name (category 2). See the section under Investments for the explanation of risk categories.

**Investments** – Statutes enacted by the Arizona State Legislature (the Statutes) authorize the ASRS to make investments in accordance with the "Prudent Expert" 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 a like capacity and familiar with the same matters would use in conduct of an 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) and mortgages.

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. During 2004, ASRS did not own securities of any organization that was more than 5 percent of ASRS' assets.

- 3. No more than 5 percent of the voting stock of any one corporation may be owned.
- 4. No more than 20 percent of the ASRS' assets may be invested in foreign equity 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. During fiscal year 2004 the ASRS had no investments in economic development projects.

The Management of ASRS believes it has complied with the above guidelines.

GASB Statement No. 3 requires government entities to categorize investments for the purpose of giving an indication of the level of credit risk assumed by the entity at year-end. The following table presents the investments at June 30, 2004, categorized to give an indication of the level of risk assumed by ASRS.

The categories are:

- 1. Insured or registered investments, or securities held by ASRS or its agent in the ASRS' name.
- 2. Uninsured or unregistered investments, with securities held by the counterparty's trust department or agent in ASRS' name.
- 3. Uninsured and unregistered investments, with securities held by the counterparty in ASRS' name or held by the counterparty's trust department or agent but not in ASRS' name.

Investments not evidenced by securities are not categorized. The fair value of investments in thousands at June 30, 2004 was as follows:

	Category		Fair
	1	2	Value
Investments – Categorized Preferred and Common Stock – Domestic	\$11,188,395		11,188,395
Preferred and Common Stock – Foreign		\$3,492,465	3,492,465
U. S. Government Obligations	3,143,563		3,143,563
Corporate Obligations – Domestic	2,204,732		2,204,732
Foreign Currency		23,175	23,175
	16,536,690	3,515,640	20,052,330
Investments – Not Categorized Short-Term Investments* Real Estate			1,970,287 26,775
Investments held by Broker/Dealers under Security Loan Program:			20,115
U. S. Government Obligations			1,293,410
Corporate Obligations – Domestic			164,902
Preferred and Common Stock- Domestic			541,501
Preferred and Common Stock –Foreign			290,183
TOTAL INVESTMENTS AT FAIR VALUE	16,536,690	3,515,640	24,339,388
Obligations Under Security Loans			(2,289,996)
INVESTMENTS AT FAIR VALUE – NET	\$16,536,690	\$3,515,640	\$22,049,392

\*Short-term Investments represent investable cash balances swept daily into the custodial bank's Short-Term Investment Fund, which is comprised of various commercial paper and short-term government securities.

If available, quoted fair value prices have been used to value investments as of June 30, 2004. Securities not having a quoted fair value have been valued on yields currently available on comparable securities of issuers with similar credit ratings. The fair value of investments in foreign securities totaled \$3.8 billion at June 30, 2004, which includes common and preferred stocks and foreign currency.

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 \$309.2 million and a payable for securities purchased of \$1 billion at June 30, 2004.

# 4. Securities Lending Program

Arizona Revised Statutes Section 38-715(D)(3) allow the ASRS to participate in a securities lending program. The ASRS' custodial bank enters into agreements with counterparts 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 equities, international equities) with a higher percentage of U.S. Treasuries 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 credit risk exposure 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, or sovereign debt. Initial 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) vankee securities; (f) repurchase agreements; (g) insurance company funding agreements, guaranteed investment contracts and bank investment contracts; (h) asset-backed securities and (i) money market mutual funds. The ASRS records the cash collateral received and the same amount as an obligation for securities on loan. Any cash collateral received is invested in short-term investments. 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 activities. 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, 2004, the ASRS had \$2.3 billion outstanding as payable for securities on loan. 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. There were no defaults during the current fiscal year.

# 5. Derivatives

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

- A. It has (1) one or more underlyings and (2) one or more notional amounts or payment provisions or both. Those terms determine the amount of the settlement or settlements, and, in some case whether or not a settlement is required.
- B. 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. 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.

The principal categories of derivatives employed and their uses during the year were as follows:

Category	Purpose
Foreign exchange forward contracts	Hedge currency risk of investments denominated in foreign currencies.
Futures	Reduce transaction costs; obtain market exposure; enhance returns.
SWAPS	Interest rate risk management; enhance returns

Generally, derivatives are subject to both market risk and counterparty risk. The derivatives utilized by ASRS managers typically have no greater market risk than their physical counterparts, and in many cases are offset by exposure elsewhere in the portfolio. All derivatives are reported at fair value.

The ASRS believes that it is unlikely that any of the derivatives used by its managers could have a material adverse effect on the financial conditions of the ASRS.

# 6. Funding Status and Progress

Significant actuarial assumptions used include: (a) a rate of return on investment of present and future assets of 8 percent, compounded annually, (b) projected salary increases ranging from 4.0 percent to 9.9 percent per year, (c) rates of disability, (d) rates of withdrawal, (e) rates of retirement, (f) mortality rates , (g) mortality rates after disability, (h) valuation of assets using fair value less ten-year phase-in (five-year phase-in before FY 2002) of excess (shortfall) investment income, and (i) projected unit-credit funding method. For the current year, there were no changes in the actuarial funding or methods. The Board changed the mortality table from the 1983 group annuity mortality table to the 1994 group annuity mortality static table, projected to 2005 by projection scale AA.

# 7. Contributions Required and Contributions Made

The A.R.S. provides statutory authority for determining the employees' and employers' contribution amounts as a percentage of covered payrolls. Employers are required to contribute at the same rate as employees. The actuarial computation is made two years in advance, based on the June 30 information (the rate for fye 2004 was based on June 30, 2002 information). The actuarial assumptions used in this measure are those adopted by the ASRS Board on November 2003. The contribution rates were actuarially determined using the Projected Unit Credit (PUC) funding method. Each employer and each member

contribute at a rate of one-half the percent of pay needed to pay the normal cost of the Plan and to amortize the unfunded actuarial accrued liability over a rolling 30 year period.

The contribution rates for the years ended June 30, 2004 and 2003, actuarially determined in 2002 and 2000, respectively, were as follows:

	For the contribution period ending June 30, 2004 (2002 Valuation)		For the contribution period ending June 30, 2003 (2000 Valuation)		
Normal cost Amortization of over	\$ <b>Amount</b> 831,499,553	Percent of Covered Payroll 11.90%	\$ <b>Amount</b> 631,666,459	Percent of Covered Payroll 10.72%	
funded past service liability	(104,840,085)	(1.50)%	(405,493,447)	(6.88)%	
	 726,659,468	10.40 %	226,173,012	3.84 % *	
Long Term Disability	 72,854,831	1.00 %	 57,759,241	0.98 %	
Actuarial Total	\$ 799,514,299	11.40 %	\$ 283,932,253	4.82 % *	
Contributions made as a percentage of the current year covered payroll:					
Employers' share	\$ 413,457,804	5.70 %	\$ 177,156,746	2.49 %	
Employees' share	 413,462,100	5.70 %	 177,156,746	2.49 %	
Current Year Total	\$ 826,919,904	11.40 %	\$ 354,313,492	4.98 % *	

\* State Statute mandates a minimum contribution rate of 2 percent each for employer and employee for retirement contributions. As a result, the actual total contribution rate differs slightly from the actuarially determined contribution rate.

The statutory contribution rate and the actuarially determined contribution rate for the year ended June 30, 2004 is 5.7 percent (5.2 percent retirement and .50 percent long-term disability) for both the employers' and employees' portion. This was determined by the 2002 actuarial valuation. This rate 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.

## 8. Additional Benefits

In addition to the pension benefits described, the ASRS offers the Retiree Group Insurance Program and the Health Insurance Premium Supplement 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 a Long-Term Disability (LTD) benefit through the LTD program administered by the ASRS or through their former member employer's group LTD plan. The employees and member employers each contributed .50 percent of compensation in FY 2004 and .49 percent in FY 2003 to the LTD fund.

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, the Public Safety Personnel Retirement System, the Elected Officials' Retirement Plan, and the Corrections Officer Retirement Plan may participate if they are no longer eligible for health insurance benefits through their former employer. More than 44,000 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 Supplement Benefit Program. This assistance is provided to those members who elect group coverage through either the Retiree Group Insurance Program or their former member employer. The employers' retirement contribution in FY 2004 of 5.2 percent of compensation included 1.10 percent for the Health Premium Insurance Supplement. In FY 2003, .06 percent of the employers' retirement contribution was for the Health Insurance Premium Supplement.

Without Medicare With Medicare A & B Combinations Retiree & **Retiree &** Dependent Dependent, One with Medicare, Years of Percent of with Medicare. other Credited Premium Retiree **Retiree &** Retiree Retiree & the other dependent Service Benefit Only **Dependents Only** Dependents without without 5.0-5.9 50 percent \$75 \$130 \$50 \$85 \$107.50 \$107.50 6.0-6.9 60 percent 90 156 102 129.00 129.00 60 7.0-7.9 70 percent 105 182 70 119 150.50 150.50 8.0-8.9 80 percent 120 208 80 136 172.00 172.00 9.0-9.9 90 percent 234 135 90 153 193.50 193.50 10.0+ 100 percent 150 260 100 170 215.00 215.00

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

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

For qualified retirees who are participating in a medical program provided by the ASRS or an ASRS employer and who live in areas of Arizona where no managed care (HMO) program is offered, the 2003 Arizona Legislature passed, and the Governor signed, legislation to provide an additional temporary premium benefit effective July 1, 2003 through June 30, 2005. These additional increases are listed in the table below:

		Without M	<b>l</b> edicare	With Medica	re A & B	Combinations	
Years of Credited Service	Percent of Premium Benefit	Retiree Only I	Retiree & Dependents	Retiree Only	Retiree & Dependents	Retiree & Dependent, One with Medicare, the other without	Retiree & Dependent with Medicare, other dependent without
5.0-5.9	50 percent	\$150	\$300	\$85	\$175	\$235	\$235
6.0-6.9	60 percent	180	360	102	210	282	282
8.0-8.9	80 percent	240	480	136	280	376	376
9.0-9.9	90 percent	270	540	153	315	423	423
10.0+	100 percent	300	600	170	350	470	470

The ASRS reimbursed approximately \$83.6 million and \$84.5 million towards the cost of group health insurance coverage for the years ended June 30, 2004 and 2003, respectively.

# 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.** Transfers To and From Other Funds

Due to/from other funds includes LTD cash deposits held at Bank of America at year end and amounts that need to be transferred after the year end contribution reconciliation.

## 11. 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 for the years available in accordance with the parameters of GASB Statement No. 25 is included immediately following the notes to the financial statements

## 12. Retirement Plans

All eligible retirement system employees are covered by the Arizona State Retirement Plan. The Plan 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 of the Arizona Revised Statutes (A.R.S.).

The ASRS Retirement Plan provides retirement and disability benefits, annual cost of living adjustments and death 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 an account 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 ASRS Retirement 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 of Trustees. The statutory contribution rate for the year ended June 30, 2004 was 5.7 percent (5.2 percent retirement and .5 percent LTD). All eligible employees were required to contribute 5.7 percent of their annual covered salary, and the ASRS, as the employer, was required to match these contributions. For the years ended June 30, 2003 and June 30, 2002, the statutory contribution rate was 2.49 percent (2.00 percent retirement and .49 percent LTD).

The ASRS annual regular 2004 base salary was \$8,050,246. The employer contributions to the Retirement Plan totaled \$458,864 for 2004, \$192,137 for 2003 and \$167,068 for 2002. The contributions were equal to the required contributions. ASRS collects the contributions and remits them to the Plan. Contributions are excluded from gross income for federal and state income tax purposes, and earn interest at the rate of 8 percent per annum. Upon termination of employment, member contributions made to the Plan, plus accrued interest at 8 percent compounded monthly per annum, are refundable.

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. The Plan provides for retirement, disability, health insurance premium benefits, and death 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). The benefit is based on a percentage of average monthly compensation multiplied by the years of service credit.

Eligible retirement system 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 retired and disabled members who are no longer eligible for coverage administered by the ASRS member employer.

# **13.** Subsequent Event

The ASRS received an outside real estate appraisal report dated October 5, 2004 for its real estate investments as of September 3, 2004. The appraisal report reflected a \$3.4 million decline in market values from fye 2003. The decline in market value relates to increased property taxes, declines in tenant occupancy and a weaker property market. The \$3.4 million decline is reflected in the investment balances at June 30, 2004.

# **Required Supplementary Information**

#### Required Supplementary Information For Year Ended June 30, 2004 (In Millions)

### Schedule of Funding Progress – Retirement Fund

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability Projected Unit-Credit	(Overfunded) Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	(Overfunded) Unfunded Actuarial Aaccrued Liability as a % of Covered Payroll
30-Jun	а	b	(b - a)	(a/b)	C	[(b-a)/c]
1998 1999 2000 2001 2002 2003	\$15,577 \$18,043 \$20,292 \$21,888 \$22,642 \$22,572	\$12,910 \$15,476 \$16,854 \$19,012 \$21,285 \$22,935	(2,667) (2,567) (3,438) (2,876) (1,357) 363	120.70% 116.60% 120.40% 115.10% 106.40% 98.40%	\$5,164 \$5,488 \$5,894 \$6,357 \$6,989 \$7,297	(51.7%) (46.8%) (58.3%) (45.2%) (19.4%) 5.0%

The June 30, 2003 accrued actuarial assets for the Health Benefit Supplement of \$945 million, has been excluded from this presentation.

#### Schedule of Employer Contributions

Year Ended June 30	Employer Contributions Required*	Percentage Contributed
1999	\$179,086,635	100 percent
2000	152,957,449	100 percent
2001	163,441,724	100 percent
2002	168,212,536	100 percent
2003	177,156,746	100 percent
2004	413,457,804	100 percent

\*Includes contributions for long-term disability.

See notes to required supplemental information.

## 1. Actuarial Methods and Assumptions for Valuations Performed

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 valuation for the period ended June 30, 2003. The unfunded actuarial accrued liability is amortized over a 30-year rolling period. 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 years before fiscal 2002, the period is five years. 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 4.25 percent per annum, depending on the length of service. The permanent benefit increase (PBI) reserve was \$1,070.7 million as of June 30, 2003, before the payment of the 2003 PBI and Enhanced PBI.

## Significant Factors Affecting Identification of Trends:

## 1999

## 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 25 percent with five years of service and increases 15 percent for each additional year of service to a maximum of 100 percent for 10 or more years of service.

## Benefit Multiplier Increased to 2.1 percent

The benefit multiplier increased from 2.0 percent to 2.1 percent effective July 1, 2000.

## 5 percent Ad Hoc Increase

A five percent retiree ad hoc increase for retirees and beneficiaries effective July 1, 2000.

## 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 years.

## Changes in Permanent Benefit Increase COLA

- A. The maximum aggregate COLA was increased from 3 percent to 4 percent.
- B. The threshold for determining "Excess Earnings" was lowered from 9 percent to 8 percent.
- C. The limitation of the COLA to the increase in the CPI was removed.

## 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 is 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 \$170
- 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.

## Supplemental Defined Contribution (DC) Plans

Repeals the provisions for the alternate DC retirement programs established in 1998 for exempt state employees (non-merit service employees), legislative agency employees and certain term limited elected officials. Persons already participating in those programs are grandfathered into them.

Provides that the ASRS, the Public Safety Personnel Retirement System (PSPRS) and their employers may establish a 401(a) defined contribution supplementary program. Employers may elect to match contributions to the supplementary program on an annual basis. Employer and member contributions to the supplement are vested immediately with the member.

## Modified Deferred Retirement Option Plan (DROP) Program

Permits an employer to offer a member who has reached normal retirement (80 points, age 62 with 10 years, or age 65) a contract to work up to an additional three years. Retirement contributions are not made to ASRS during the contract period; however LTD contributions still continue to be paid to the ASRS. During the contract period, the member and employer contribute to a supplemental DC Plan at a rate negotiated between the member and the employer. Upon completing the additional service, the employee must purchase an equivalent amount of service from the ASRS in order to receive credit for the three years worked.

## Partial Lump Sum Option

Beginning July 1, 2002, a member may elect a partial lump sum 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.

## Removal of requirement that purchase of military service be only for which the member is not receiving a benefit.

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

### Pop-Up for members choosing a life certain option

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

## 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 five-year phase-in period to a tenyear 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 Subsidy

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

# 2004

## Service Purchase Program

The Arizona 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% per annum for service purchases under payroll deduction agreements.

## Early Retirement Incentive Programs

The Arizona 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 cost of the incentives and the employers will pay the cost.

## 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 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.

# Combining Schedule of Retirement Net Assets

# June 30, 2004

(Dollars in Thousands)

	Retirement Plan	Retirement System	Combined 2004
ASSETS:			
Cash	\$14,144	\$-	\$14,144
RECEIVABLES:			
Accrued interest & dividends	61,046	1,670	62,716
Securities sold	289,600	7,918	297,518
Forward contracts	1,702,259	46,546	1,748,805
Contributions	15,107	-	15,107
Miscellaneous	1,276	35	1,311
Total Receivables	2,069,288	56,169	2,125,457
INVESTMENTS AT FAIR VALUE :			
Temporary investments	1,866,879	51,048	1,917,927
Temporary investments from securities lending cc	2,144,584	58,641	2,203,225
U. S. government obligations	2,908,364	79,525	2,987,889
Corporate bonds	2,064,734	56,458	2,121,192
Common and preferred stocks	13,662,085	373,574	14,035,659
Real estate mortgages & contracts	25,074	686	25,760
Total investments	22,671,720	619,932	23,291,652
TOTAL ASSETS	24,755,152	676,101	25,431,253
LIABILITIES:			
Payable for securities purchased	956,829	26,163	982,992
Payable for securities lending collateral	2,144,584	58,641	2,203,225
Forward contracts payable	1,705,393	46,632	1,752,025
Due to Other funds	1,030	-	1,030
Other	6,792		6,792
Total Liabilities	4,814,628	131,436	4,946,064
NET ASSETS HELD IN TRUST FOR PENSION BENEFITS	\$19,940,524	\$544,665	\$20,485,189

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, 2004

(Dollars in Thousands)

	Retirement Plan	Retirement System	Combined 2004
ADDITIONS		-	
Contributions			
Member contributions	\$377,003	\$433	\$377,436
Employer contributions	297,269	501	297,770
Transfers from other plans	1,906	-	1,906
Mem ber reim burs em ents	112,032	6	112,038
Total Contributions	788,210	940	789,150
Income from investment activities			
Net appreciation			
in fair value	2,616,634	77,359	2,693,993
Interest	224,123	6,626	230,749
Dividends	178,749	5,285	184,034
Real Estate	6,516	193	6,709
Other	3,621	107	3,728
Total income from investment activities	3,029,643	89,570	3,119,213
Less investment activity expenses Investment management fees			
and monitoring services	23,249	687	23,936
Realestate	4,740	140	4,880
Total investment activity expenses	27,989	827	28,816
Net income from investment activities	3,001,654	88,743	3,090,397
From securities lending activities			
Security loan program	26,850	794	27,644
Security loan interest expense	20,651	611	21,262
Net income from securities lending activities	6,199	183	6,382
Total net investment income	3,007,853	88,926	3,096,779
TOTAL ADDITIONS	3,796,063	89,866	3,885,929
DEDUCTIONS			
Retirement and disability benefits	1,194,980	43,986	1,238,966
Survivor benefits	13,726	1,133	14,859
Refunds to withdrawing members,			
including interest	34,006	2,206	36,212
Administrative expenses	22,791	675	23,466
Transfers to other plans	2,336	-	2,336
Other	6,415	67	6,482
TOTAL DEDUCTIONS	1,274,254	48,067	1,322,321
NETINCREASE	2,521,809	41,799	2,563,608
Net assets held in trust for pension benefits:			
Beginning of year	17,418,715	502,866	17,921,581
End of year	\$19,940,524	\$544,665	\$20,485,189

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.

## **Additions by Source**

(Dollars In Thousands)

	Employee Contribution	Employer Contribution	Net Investment	Member Reim- bursements	
Year	Made	Made	Income	and Other ***	Total
1995*	\$158,560	\$158,560	\$2,409,805	\$9,429	\$2,736,354
1996**	172,848	172,848	2,063,878	4,376	2,413,951
1997	173,508	173,508	2,832,718	11,481	3,191,215
1998	176,769	176,769	3,405,203	15,462	3,774,202
1999	179,087	179,087	2,848,321	46,171	3,252,665
2000	152,957	152,958	2,035,312	35,348	2,376,575
2001	163,442	163,442	(1,528,691)	37,687	(1,164,120)
2002	168,213	168,213	(1,768,077)	51,350	(1,380,302)
2003	177,157	177,157	368,631	93,552	816,497
2004	413,462	413,458	3,228,785	113,944	4,169,649

- \* Other income includes Chapter 137 reimbursements and transfers of \$7,505,005 for 1995 which are outlined by State Statute for members buying back service into ASRS.
- \*\* Investment income restated at fair value for 1996. Investment income reported at fair value for subsequent years.
- \*\*\* Inter fund transfers are not included in the table.

# **Deductions by Type**

(Dollars In Thousands)

			Administration,	
Year	Benefits	Refunds	Transfers and Other	Total
1995	\$495,151	\$24,516	\$5,970	\$525,637
1996	542,525	26,376	8,245	577,146
1997	596,308	31,282	12,308	639,898
1998	652,567	29,769	12,541	694,877
1999	713,871	26,108	15,353	755,332
2000	787,553	70,754	19,744	878,052
2001	909,615	98,535	24,640	1,032,790
2002	1,069,044	42,765	28,105	1,139,914
2003	1,222,564	35,976	37,877	1,296,418
2004	1,396,481	36,212	35,745	1,468,438

# Schedule Of Administrative Expenses For year ended June 30, 2004 (Dollars In Thousands)

	Retirement and Health Benefit Supplement	Long-Term Disability	Combined 2004
Personnel Services			
Salaries	\$8,463	-	\$8,463
Retirement Contributions	422	-	422
Other Employee Related Expenses	1,602	-	1,602
Total Personnel Services	10,487	-	10,487
Professional Services			
Actuary & Benefit Consulting	790	-	790
Audit, Consulting & Legal Fees	500	-	500
Retiree Payroll Costs	761	-	761
Programming Costs	5,283	-	5,283
Other Outside Services	1,385	2,515	3,900
Total Professional Services	8,719	2,515	11,234
Communications			
Postage	657	-	657
Printing	80	-	80
Telephone	199	-	199
Advertising	10	-	10
Total Communications	946	-	946
Miscellaneous			
Board & Council	6	-	6
Office Rent	1,777	-	1,777
Furniture & Equipment	1,525	-	1,525
Software & Support	254	-	254
Repair & Maintenance	114	-	114
Equipment Rental	-	-	-
Travel	66	-	66
Operating Supplies	163	-	163
Insurance	114	-	114
Dues & Subscriptions	36	-	36
Education & Training	107	-	107
Miscellaneous	5	-	5
Total Miscellaneous	4,167	-	4,167
TOTAL	\$24,319	\$2,515	\$26,834

# Schedules of Cash Receipts and Cash Disbursements Year Ended June 30, 2004

(Dollars In Thousands)

CASH BALANCE, beginning of year	\$15,099
RECEIPTS:	
Member contributions	407,311
Employer contributions	407,381
Purchase of back service (membership reimbursements)	112,038
Transfers from other retirement systems	1,906
Short-term securities matured and sold	7,864,069
Investments matured and sold	24,870,093
Building revenue	7,512
Securities lending program	28,607
Interest	241,352
Dividends	187,624
Miscellaneous	3,578
TOTAL RECEIPTS	\$34,131,471
DISBURSEMENTS:	
Retirement, disability and subsidy payments	\$1,381,743
Death benefits	14,859
Refunds to withdrawing members	36,212
Transfers to other retirement systems	1,411
Short-term investments purchased	9,167,910
Investment purchases	23,444,588
Securities lending program charges	22,051
Investment manager fees	24,824
Building expenses	5,061
Administrative expenses	23,402
Miscellaneous	5,364
TOTAL DISBURSEMENTS	\$34,127,425
CASH BALANCE, end of year	\$19,145

# Additional Supplementary Information Schedule Of Professional Consultant Fees For Year Ended June 30, 2004

(Dollars In Thousands)

Professional/Consultant	Nature Of Service	Expe	nses
Voluntary Plan Administration	LTD Consulting Services	\$ 2,	,515
Mellon Bank Trust & Investments	Pension Payment Services	1,	,160
H L Yoh Co. LLC	IT Consulting Services		922
Comsys Information Technology	IT Consulting Services		859
Kelly Services Inc.	Temporary Agency		651
Spherion Corportation	IT Consulting Services		612
Staffmark Inc.	Temporary Agency		590
Tier Technologies Inc	IT Consulting Services		508
Technisource Inc	IT Consulting Services		355
Covansys Corporation	IT Consulting Services		327
Attorney General Office	Legal Services		297
Mercer Human Resource	Investment Consultants		260
Buck Consultants Inc.	Actuary Services		258
Ablest Inc.	IT Consulting Services		243
ICC International	IT Consulting Services		233
Datatek Consulting Group	IT Consulting Services		228
Glotel	IT Consulting Services		218
Watson Wyatt & Company	Plan Administration Consulting		201
Keane Inc.	IT Consulting Services		197
Data Mavens Inc.	IT Consulting Services		161
Analysts International Co.	IT Consulting Services		136
Sheridan IT Resources LLC	IT Consulting Services		111
Deloitte & Touche LLP	Audit Services		85
Computer Information Technologies	IT Consulting Services		82
Ridenour, Hienton, Harper	Legal Services		66
INT Technologies LLC	IT Consulting Services		58
West Group Research	Member Satisfaction Services		53
Charles W Whetstine	Legal Services		52
Segal Company	Plan Administration Consulting		46
Cost Effectiveness Measurement Inc.	Plan Administration Consulting		25
Compuware Corporation	Consulting Services		21
Munis Inc.	Consulting Services		12
Corporate Job Bank Personnel	Consulting Services		12
Capitol Systems Corp.	IT Consulting Services		12
Tech Knowledgy Store LLC	IT Consulting Services		11
Servion Global Solutions	IT Consulting Services		10
State Of Arizona	Financial Services		9
Other Consulting Fees (less than ten thousand dollars)	Miscellaneous Consulting Services		24
Total		\$11	620

Total

# Schedule of Net Investment Income Experience by Manager For Year Ended June 30, 2004

(Dollars In Thousands)

Market Appreciation			Real Estate/	Total Investment
(Depreciation)	Interest	Dividends	Other	Income
\$481,746	\$168,649	\$64,640	\$10,784	\$725,819
101,833	90	14,049	-	115,972
250,420	55	25,697	-	276,172
663,834	-	-	-	663,834
17,058	41	-	-	17,099
(27,973)	34,415	57	-	6,499
307,082	149	24,341	-	331,572
102	0	-	-	102
39,757	-	-	-	39,757
(10,414)	5,508	297	-	(4,609)
61,255	32	2,225	-	63,512
154,268	82	13,866	-	168,216
47,163	84	280	-	47,527
9,523	24	439	-	9,986
120,570	50	3,413	-	124,033
(11,557)	11,192	-	-	(365)
13,806	15	376	-	14,197
183,491	25	16,033	-	199,549
17,197	22	342	-	17,561
(13,793)	391	-	-	(13,402)
72,845	72	3,365	-	76,282
41,677	10	1,898	-	43,585
(14,626)	18,185	31	-	3,590
87,778	27	8,685	-	96,490
104,226	-	4,820	-	109,046
67,822	38	4,852	-	72,712
26,769	165	290	-	27,224
19,188	34	869	-	20,091
\$ 2,811,047	\$239,355	\$190,865	\$10,784	\$3,252,051
	Appreciation (Depreciation) \$481,746 101,833 250,420 663,834 17,058 (27,973) 307,082 102 39,757 (10,414) 61,255 154,268 47,163 9,523 120,570 (11,557) 13,806 183,491 17,197 (13,793) 72,845 41,677 (14,626) 87,778 104,226 67,822 26,769 19,188	AppreciationInterest\$481,746\$168,649101,83390250,42055663,834-17,05841(27,973)34,415307,082149102039,757-(10,414)5,50861,25532154,2688247,163849,52324120,57050(11,557)11,19213,80615183,4912517,19722(13,793)39172,8457241,67710(14,626)18,18587,77827104,226-67,8223826,76916519,18834	AppreciationInterestDividends(Depreciation)InterestDividends\$481,746\$168,649\$64,640101,8339014,049250,4205525,697663,83417,05841-(27,973)34,41557307,08214924,3411020-39,757(10,414)5,50829761,255322,225154,2688213,86647,163842809,52324439120,570503,413(11,557)11,192-13,80615376183,4912516,03317,19722342(13,793)391-72,845723,36541,677101,898(14,626)18,1853187,778278,685104,226-4,82067,822384,85226,76916529019,18834869	AppreciationInterestDividendsOther\$481,746\$168,649\$64,640\$10,784101,8339014,049-250,4205525,697-663,83417,05841(27,973)34,41557-307,08214924,341-102039,757(10,414)5,508297-154,2688213,866-47,16384280-9,52324439-120,570503,413-13,80615376-13,80615376-13,80615376-17,19722342-(13,793)39172,845723,365-(14,626)18,18531-104,226-4,820-104,226384,852-26,769165290-19,18834869-

# Schedule of Total Investment Expenses by Manager For Year Ended June 30, 2004

(Dollars In Thousands)

			Total
	Management	Real Estate	Investment
Manager / Fund	Fees	Expense	Expense
Bank Of Ireland International	\$1,601	-	\$1,601
Bank Of New York	871	-	871
Bank One	-	\$5,061	5,061
BGI Tactical	1,265	-	1,265
Blackrock	1,355	-	1,355
Brandes International	3,258	-	3,258
Bridgewater	85	-	85
Bridgewater International	1,607	-	1,607
Byram	551	-	551
Capital Guardian International	2,426	-	2,426
Columbia Management Co.	1,238	-	1,238
CRM	229	-	229
Dimensional Fund	638	-	638
<b>Fidelity Management</b>	216	-	216
Forstmann-Leff Assoc	207	-	207
Franklin Portfolio	1,433	-	1,433
Frontier Capital	538	-	538
Goldman Sachs	1,617	-	1,617
Goldman Sachs International	1,685	-	1,685
Intech	856	-	856
J P Morgan	795	-	795
LSV Asset Management	1,094	-	1,094
Mellon Domestic	94	-	94
State Street Global	562	-	562
Wellington Mgmt Co	603	-	603
Total	\$24,824	\$5,061	\$29,885

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Investment - n. 1. The act of investing.
2. An amount invested. 3. A possession acquired and kept for future benefit. 4. Investiture.

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# Investment Report

# U.S. Economy and Capital Markets - FY 2003-04

By Lawrence Trachtenberg, Investment Review Board Committee Chairman, and Gary R. Dokes, Chief Investment Officer

# Third Quarter 2003

The economy surged in the third quarter of 2003, with the Gross Domestic Product (GDP) expanding at an annual rate of 8.2%, the highest level in years and far ahead of expectations. This growth did not spell a large gain in jobs, though unemployment did fall to 6.1% in September as jobs were added in most sectors for the first time in eight months. The effects of the Bush tax cuts were felt during the quarter as same store sales rose 5.9% in September, the largest gain in 18 months. Consumer confidence did fall, however, due to concerns about the job market. An increase in mortgage rates did not slow down housing activity as existing home sales reached a record high in August.

Domestic equity markets performed well for the quarter. In Large Cap issues, the S&P 500 Index rose 2.7% and the Russell 1000 was up 3%, with cyclical issues, notably those in the technology sector, leading the way. Small Cap stocks fared even better with the Russell 2000 Index advancing 9.1%. International equities also showed strong results. Helped along by a falling dollar, the MSCI EAFE Index gained 8.2% for the quarter.

The fixed income markets did not enjoy the same success as the equity markets during the quarter. Investment-grade issues declined sharply in July followed by a modest recovery in August and September. Overall, the Lehman Brothers Aggregate Bond Index fell 0.2%, with the heaviest losses occurring in the long end of the curve.

## Fourth Quarter 2003

The fourth quarter of 2003 brought continued economic expansion. The GDP backed off from the huge third quarter increase but still came in slightly ahead of expectations at a 4.1% annual rate. Job growth remained on the low end, with less than 200,000 new jobs created for the quarter. Holiday spending helped boost retail sales, and housing activity remained robust, capping off a year that saw a record 7.1 million new home sales.

Equities advanced during the quarter as 2003 brought the first gain for stocks in four years. The S&P 500 Index rose 12.2% during the quarter and finished the year up 28.7%, and the Russell 1000 Index rose 12.3% for the quarter and 29.9% for the year. Small Cap issues continued to outpace Large Cap stocks, with the Russell 2000 Index advancing 14.5% for the quarter and 47.3% for the year. International stocks, measured by the MSCI EAFE Index, rose 17.1% for the quarter for an annual gain of 39.2%, half of which was the result of the decline in the U.S. Dollar.

The investment-grade bond market displayed relatively weak results for the quarter, as yields on intermediate- and long-term issues rose. For the quarter, the Lehman Aggregate Bond Index returned 0.3%, for a full-year gain of 4.1%. Within the index, the credit sector outperformed Treasury and MBS securities, with lower quality bonds performing the best.

# Investment Report

## First Quarter 2004

The jobs picture brightened in the first quarter of 2004, as over 500,000 jobs were created and initial jobless claims continued to show improvement. Consumer spending was strong, and March retail sales registered a year over year gain of 8.2%, the highest level in four years. Inflationary pressures began to creep in during the quarter, with the CPI increasing 1.3% and energy prices rising. Oil prices in particular showed a dramatic rise, as prices reached levels last seen during the 1990 Gulf War.

Large cap equity prices increased slightly during the quarter, with defensive sectors outperforming cyclical issues. The S&P 500 Index rose 1.7% and the Russell 1000 was up 1.9%. Small Cap issues had another strong quarter, with the Russell 2000 index returning 6.3%. Despite the bombing in Madrid and a strengthening dollar versus the Euro, the MSCI EAFE Index rose 4.4% during the quarter, largely on the strength of Japanese stocks.

he fixed income market advanced during the quarter, as the Lehman Brothers Aggregate Bond Index rose 2.7%. Narrowing yield spreads caused corporate issues to outpace U.S. Treasury issues, and longer issues returned more than short and intermediate maturities.

## Second Quarter 2004

Economic expansion continued in the second quarter, though several key numbers indicated a slowdown. The 2.8% growth in GDP was below the initial estimate of 3.0%, and first quarter GDP was revised downward to 3.9%. June job growth slowed from the torrid pace of March, April and May, and while the unemployment rate declined again, it was by a lesser margin than previous quarters. The housing market remained strong, and retail sales slowed, though still displaying improvement from year-ago levels. Additionally, the Fed raised short-term interest rates 0.25% in June, and reiterated its stance to take action at a "measured pace."

The second quarter brought another modest increase for Large Cap equities, with the S&P 500 Index rising 1.7% and the Russell 1000 Index up 1.4%. These returns trumped those of the Small Cap world, with the Russell 2000 Index returning only 0.47% for the quarter. The MSCI EAFE Index gained only 0.4% for the quarter, with a slightly stronger dollar and the news of China attempting to moderate growth hurting international returns.

The anticipation of rising rates and concerns about inflation hindered the performance of fixed income securities. The Lehman Aggregate Bond Index was down 2.4% for the quarter. Longer maturity bonds saw the biggest declines, while short maturities and mortgage-backed securities fared better than other sectors.

## **Investment Policies**

The ASRS adheres to all statutory requirements set forth by Arizona state law, which applies upper limits to the portions of the fund that may be invested in any single entity, international equities, or total equities. The ASRS has also established investment guidelines for its 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

# **Investment Report**

internal and external audit procedures are in place. Oversight and direction responsibilities are ensconced with the Board.

## **Investment Goals**

The ASRS adheres to the following five investment goals:

- 1. Maintain ASRS investments in accordance with the Asset Allocation Policy approved by the ASRS Board of Trustees.
- 2. Achieve a long-term average annual rate of return of 8% on accrued assets.
- 3. Effectively manage cash-flow requirements to meet payment obligations to retirees/ non-retirees, and the operations of the ASRS.
- 4. Maintain an effective internal and external investment management program.
- 5. Adhere to the Arizona Revised Statutes and ASRS investment policies and procedures.

## Asset Allocation Targets

Effective October 2003, ASRS asset allocation policy targets are as follows:

U.S. Equity	53% +/- 5%
U.S. Fixed Income	26% +/- 5%
International Equity	15% +/- 5%
Real Estate	6% +/- 2%

The Real Estate allocation is pro-rated into the other asset classes until investments are made into this asset class.

#### **Investment Results**

The Total Fund returned 17.5 percent in the fiscal year ended June 30,2004.

#### **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. 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 rates of return on the overall portfolio, as well as specific asset classes, along with the benchmarks used to compare performance.

	1 Yr	3Yr	5Yr	10+Yr
ASRS Total Fund	17.50%	3.30%	2.50%	11.00%
ASRS Domestic Equity	22.20%	0.70%	(0.50%)	12.40%
S&P 500 Index	19.10%	(0.70%)	(2.20%)	10.00%
ASRS Domestic Fixed Income	0.20%	6.30%	6.90%	9.70%
Lehman Aggregate Index	0.30%	6.40%	6.90%	6.90%
ASRS International Equity	34.30%	4.70%	3.40%	6.50%
MSCI EAFE Index	32.90%	4.30%	0.40%	4.70%

#### **Annualized Rates of Return**

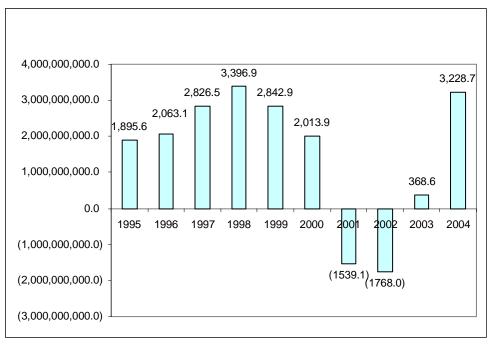
Fiscal Year	Return	Fiscal Year	Return	Fiscal Year	Return
2003-04	17.50%	1995-96	16.70%	1987-88	3.10%
2002-03	2.40%	1994-95	17.78%	1986-87	11.80%
2001-02	(8.20%)	1993-94	1.89%	1985-86	31.50%
2000-01	(6.70%)	1992-93	16.74%	1984-85	32.10%
1999-00	10.00%	1991-92	14.62%	1983-84	(5.20%)
1998-99	16.80%	1990-91	7.99%	1982-83	40.30%
1997-98	21.30%	1989-90	9.52%	1981-82	2.40%
1996-97	20.60%	1988-89	14.33%	1980-81	4.95%

#### **Investment Results**

#### **Monthly Returns**

Month	Total Fund	US Equity	Fixed Income	International Equity
Jul 2003	0.75%	2.26%	(3.67%)	3.26%
Aug 2003	2.23%	2.68%	0.85%	3.19%
Sep 2003	0.47%	(1.18%)	2.75%	2.01%
Oct 2003	4.28%	6.37%	(0.94%)	6.51%
Nov 2003	1.32%	1.51%	0.23%	2.57%
Dec 2003	4.08%	4.52%	0.97%	7.37%
Jan 2004	1.79%	2.13%	0.80%	2.23%
Feb 2004	1.52%	1.53%	1.08%	2.22%
Mar 2004	(0.18%)	(0.85%)	0.78%	0.42%
Apr 2004	(2.34%)	(2.14%)	(2.65%)	(2.30%)
May 2004	0.64%	1.35%	(0.44%)	0.34%
Jun 2004	1.81%	2.34%	0.59%	2.37%

#### Net Income from Investments (Dollars in Millions)



# **Investment Results**

Fis cal Ye ar	Investment Income	Market Appreciation	Investment Expense	Net Income From Investments
1994-95	\$509,614	\$1,401,325	\$15,257	\$1,895,682
1995-96	523,566	1,562,575	22,990	2,063,151
1996-97	566,750	2,282,015	22,264	2,826,501
1997-98	325,329	3,094,012	22,377	3,396,964
1998-99	394,337	2,474,779	26,215	2,842,901
1999-00	416,594	1,625,595	28,273	2,013,916
2000-01	527,329	(2,038,932)	27,525	(1,539,128)
2001-02	485,535	(2,228,394)	25,218	(1,768,077)
2002-03	442,870	(51,437)	22,801	368,632
2003-04	447,623	2,811,047	29,885	3,228,785

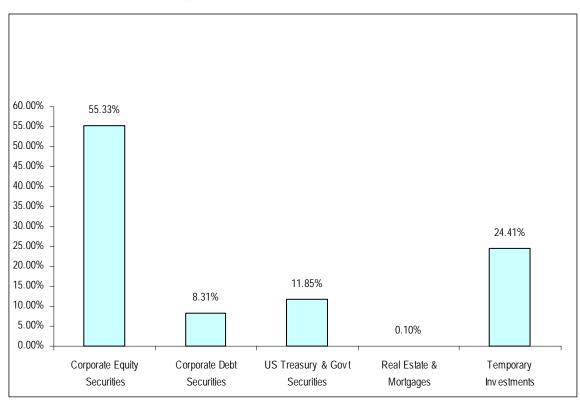
#### Ten Year Review of Investment Income

### **Asset Allocation**

#### Schedule of Investments

	Dollars	% of Total Portfolio
Corporate Equity Securities	\$ 14,680,860,503	55.33%
Fixed Income Securities		
Corporate Debt Securities	2,204,731,820	8.31%
US Treasury & Govt Securities	3,143,562,831	11.85%
Real Estate & Mortgages	26,775,000	0.10%
Temporary Investments	6,476,780,202	24.41%
Total Fixed Income Securities	11,851,849,853	
Total Investments	26,532,710,356	
Net Payable On Transactions	(5,132,726,365)	
Total Portfolio	\$ 21,399,983,991	100.00%

#### **Investment Portfolio Components**



# **Equity Portfolio Profile**

Equity Sub-Sector Allocation	Percent of Total Fund	Dollar Value
U.S. Large Cap Equity	34.33%	\$9,109,360
U.S. Mid Cap Equity	4.23%	1,123,294
U.S. Small Cap Equity	3.83%	1,016,323
Total U.S. Equity	42.40%	11,248,977
International Equity	12.93%	3,431,883
Total Equity	55.33%	14,680,860

Ten Largest Domestic Equity Holdings	% Of Domestic Equity Portfolio
MICROSOFT CORP COM	1.55%
EXXON MOBIL CORP	1.52%
CITIGROUP INC COM	1.32%
GENERAL ELEC CO COM	1.29%
PFIZER INC COM STK USD0.05	1.13%
BANK OF AMERICA CORP	1.00%
WAL MART STORES INC COM	0.93%
INTEL CORP	0.84%
AMERICAN INTL GROUP INC COI	0.83%
JOHNSON & JOHNSON COM	0.80%
Total	11.21%

# **Equity Portfolio Profile**

Distribution By Market Sector	ASRS Domestic Equity	S&P 500 Index
Financials	19.65%	20.48%
Health Care	12.21%	13.67%
Utilities	2.92%	2.71%
Consumer Discretionary	14.69%	10.83%
Consumer Staples	9.20%	11.33%
Energy	6.60%	6.11%
Information Technology	16.81%	17.50%
Materials	3.49%	3.01%
Telecommunication Services	2.95%	3.48%
Industrials	11.48%	10.88%
Total	100.00%	100.00%

Ten Largest International Equity Holdings	% Of International equity Portfolio
NESTLE SA CHF1	1.79%
ING GROEP N.V. CVA EUR0.24	1.15%
VODAFONE GROUP PLC ORD USD0.10	1.09%
SUMITOMO MITSUI GR NPV	1.06%
MITSUBISHI TOKYO FINL GRP	0.96%
BBVA EUR0.49	0.96%
NIPPON TEL & TEL CORP Y50000	0.88%
E.ON AG NPV	0.88%
UNILEVER NV CVA NLG1.12	0.87%
GLAXOSMITHKLINE ORD GBP0.25	0.86%
Total	10.50%

Summary Of Broker Commissions	Commission
Domestic Equity	\$6,863,920
Foreign Equity	1,647,728

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

# Fixed Income Portfolio Profile

Distribution By Sector	Percent
US Treasury & Government Agency	31.00%
Corporates	33.70%
Mortgage Backed Securities	31.70%
Asset Backed Securities	3.60%
	100.00%

Distribution By Coupon	Percent
0.00% - 6.50%	76.20%
6.51% - 7.50%	13.30%
7.51% - 9.00%	7.10%
> 9.00%	3.40%
	100.00%

Distribution By Maturity	Percent
0 to 2 years	8.60%
2 to 3 years	6.90%
3 to 4 years	4.00%
4 to 5 years	7.60%
5 to 6 years	3.20%
6 to 8 years	9.00%
> 8 years	60.70%
	100.00%

# Fixed Income Portfolio Profile

Ten Largest Domestic Fixed Income Holdings	Coupon	Maturity	Par Value	Market Value	Percent
FNMA POOL	5.00%	7/1/2019	\$161,922	\$161,906	2.83%
FNMA POOL	5.50%	7/1/2034	101,000	100,625	1.76%
FNMA POOL	5.00%	7/1/2034	95,400	92,304	1.62%
U S TREASURY NOTES	4.75%	5/15/2014	76,095	76,880	1.35%
U S TREASURY NOTES	2.25%	4/30/2006	74,205	73,692	1.29%
U S TREASURY BONDS	8.13%	8/15/2019	53,235	69,717	1.22%
U S TREASURY BONDS	10.38%	11/15/2012	55,330	67,605	1.18%
FNMA POOLS	4.50%	7/1/2018	61,374	60,261	1.06%
FEDERAL NATL MTG ASSN DEBS	5.75%	2/15/2008	55,500	59,164	1.04%
FNMA POOLS	5.50%	7/1/2034	57,115	56,918	1.02%
					14.37%

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

# Schedule of Broker Commissions - Domestic Equity Trades

Broker Name	Number Of Shares	Commission Per Share	Total Dollar Amount Of Trades	Commission
ABEL NOSER CORP, NEW YORK	991,986	0.019	\$32,494,510	\$18,906
ACCESS SEC INC, STAMFORD	2,826,400	0.040	93,582,484	112,869
ADAMS HARKNESS & HILL INC, BOSTON	915,809	0.050	17,625,466	45,997
AUTRANET INC, NY	964,962	0.049	24,857,857	47,526
AVIAN SECURITIES INC, BOSTON	2,300,340	0.048	31,705,907	110,841
B TRADE SVCS LLC, NEW YORK	5,218,294	0.024	95,625,050	124,106
BAIRD, ROBERT W & CO INC, MILWAUKEE	848,500	0.049	14,787,336	41,911
BANC OF AMERICA SECS LLC, CHARLOTTE	850,115	0.046	17,941,466	39,295
BEAR STEARNS SEC CORP, BROOKLYN	9,227,208	0.028	271,363,481	260,284
BOSTON INSTITUTIONAL SVCS INC,	2,321,182	0.049	59,601,418	113,292
BRIDGE TRADING CO, ST LOUIS	660,800	0.044	11,544,351	29,159
CANTOR FITZGERALD & CO INC, NEW YORK	3,900,620	0.038	118,001,138	146,673
CAP INSTL SVCS INC-EQUITIES, DALLAS	1,119,036	0.042	30,064,602	46,654
CIBC WORLD MARKETS CORP, NEW YORK	2,126,350	0.045	55,154,854	95,249
CITATION GROUP, NY	1,743,800	0.049	51,556,433	85,959
CITIGROUP GBL MKTS INC, NEW YORK	6,409,997	0.035	177,184,783	225,509
CREDIT SUISSE FIRST BOSTON CORP, N Y	5,445,894	0.047	140,994,186	253,420
DAIN RAUSCHER INC, MINN	777,297	0.049	13,171,635	38,082
DEUTSCHE BANC ALEX BROWN INC, NEW	4,958,589	0.028	130,544,808	136,599
EXECUTION SERVICES INC, NEW YORK	4,584,859	0.046	95,696,678	210,456
FACTSET DATA SYSTEMS INC, NY	1,997,075	0.050	32,783,925	99,854
FIDELITY CAP MKTS (DIV OF NFSC),	5,875,531	0.046	172,797,318	267,567
FIRST ALBANY CAPITAL INC, ALBANY	551,800	0.049	10,098,520	27,208
FRANCIS P MAGLIO & CO INC, NEW YORK	587,400	0.025	21,746,283	14,760
FRANK RUSSELL SEC INC, NEW YORK	1,467,400	0.040	50,308,123	58,696
GOLDMAN SACHS & CO, NY	3,521,957	0.037	99,520,620	131,156
GRISWOLD COMPANY, NEW YORK	274,100	0.030	12,373,919	8,274
GUZMAN & CO, NEW YORK	1,259,600	0.021	44,367,376	26,744
HEFLIN & CO LLC, NEW YORK	529,900	0.052	11,523,948	27,694
INSTINET CORP, NY	6,695,111	0.019	170,624,108	123,904
INVESTMENT TECHNOLOGY GROUPS, NEW	9,440,129	0.020	281,043,203	191,434
JEFFERIES & CO INC, NEW YORK	5,224,683	0.040	135,199,766	206,897
JNK SECURITIES INC, NEW YORK	5,155,914	0.016	148,257,716	83,406
JONES & ASSOCIATES INC, WESTLAKE	2,888,854	0.047	73,422,093	135,617
KALB VOORHIS & CO LLC, NEW YORK	529,535	0.042	12,273,212	22,047
KNIGHT SEC BROADCORT, JERSEY CITY	1,234,346	0.045	15,559,189	55,902
LA BRANCHE FINANCIAL SVCS/HBI, NEW	5,467,253	0.030	192,646,197	165,924
LEHMAN BROS INC, NEW YORK	11,009,695	0.029	357,612,645	324,446
LIQUIDNET INC, BROOKLYN	2,622,927	0.028	61,233,647	73,502
LYNCH JONES & RYAN INC, HOUSTON	3,957,801	0.049	78,542,439	195,469
MCDONALD & CO, NEW YORK	566,000	0.049	11,826,531	27,512

MERRILL LYNCH PIERCE FENNER SMITH	9,286,883	0.042	263,626,774	392,585
MERRILL LYNCH PROFESSIONAL CLRG,	2,635,290	0.030	82,093,987	78,668
MIDWEST RESEARCH SECURITIES, JERSEY	440,900	0.050	10,502,281	22,079
MORGAN J P SECS INC, NEW YORK	1,638,413	0.049	45,765,804	80,907
MORGAN KEEGAN & CO INC, MEMPHIS	727,489	0.049	13,152,795	35,508
MORGAN STANLEY & CO INC, NY	2,733,795	0.043	69,496,827	117,565
NUTMEG SECURITIES, WESTPORT	936,807	0.052	16,591,417	48,508
PIPER JAFFRAY & CO, MINNEAPOLIS	953,640	0.050	20,297,263	47,584
PRUDENTIAL EQUITY GROUP, NEW YORK	2,460,980	0.045	65,456,998	109,934
RAYMOND JAMES & ASSOC INC, ST	1,658,066	0.050	27,221,743	82,919
ROCHDALE SECURITIES CORP	1,043,600	0.041	38,789,804	43,137
ROSENBLATT SECURITIES INC, JERSEY CITY	590,800	0.020	20,437,005	11,816
RUSSELL FRANK SECS INC	1,520,382	0.050	23,937,964	76,019
RUSSELL, FRANK SECS, NEW YORK	415,800	0.030	14,768,417	12,474
SCHWAB CHARLES & CO INC, SAN	5,560,915	0.040	120,883,477	221,901
SG AMERICAS SECURITIES LLC, NEW YORK	1,037,300	0.049	24,134,788	51,259
SUNTRUST CAPITAL MARKETS INC,	665,172	0.048	15,720,004	31,865
THOMAS & WEISEL INC, SAN FRANCISCO	1,156,650	0.049	21,725,426	56,527
UBS SECURITIES LLC, NEW YORK	4,145,545	0.043	104,782,196	178,366
WACHOVIA CAPITAL MARKETS LLC,	818,470	0.048	23,633,462	39,398
WEEDEN & CO, NEW YORK	3,178,787	0.031	88,975,795	99,223
OTHERS	12,122,172		255,749,798	574,878
TOTAL	184,776,905		\$4,845,003,246	\$6,863,920

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

Broker Name         Shares         Per Shares         Trades         Commission           ABN AMRO SECS LLC, NEW YORK         319,950         0.067         \$13,540,347         \$21,534           BEAR STEARNS & CO INC, NY         284,322         0.099         15,195,476         28,069           CAZENOVE & CO, LONDON         5,896,752         0.005         19,818,902         28,337           CITIGROUP GBL MKTS/SALOMON, NEW YOF         1,564,853         0.018         30,574,449         28,732           CREDIT SUISSE FIRST BOSTON (EUROPE),         4,563,707         0.006         19,905,258         28,578           CREDIT SUISSE FIRST BOSTON CORP, N Y         1,592,200         0.015         17,842,729         24,318           CSFB (HK) LIMITED, HONG KONG         1,263,623         0.012         12,825,771         15,284           DEUTSCHE BANC ALEX BROWN INC, NEW         5,384,978         0.010         24,665,086         55,365           DRESDNER KLEINWORT BENSON, NEW YOI         1,784,800         0.022         27,532,137         39,330           DRESDNER KLEINWORT WASSERSTEIN,         1,495,492         0.018         15,257,852         27,354           GOLDMAN SACHS INT, LONDON         2,392,911         0.013         55,044,173         22,217           HSBC BANK PLC			Commission	Total Dollar Amount Of	<b>A</b>
BEAR STEARNS & CO INC, NY         284,322         0.099         15,195,476         28,069           CAZENOVE & CO, LONDON         5,896,752         0.005         19,818,902         28,337           CITIGROUP GBL MKTS INC, NEW YORK         370,003         0.039         10,340,511         14,500           CITIGROUP GBL MKTS INC, NEW YORK         370,003         0.039         10,340,511         14,502           CREDIT SUISSE FIRST BOSTON (EUROPE),         4,563,707         0.006         19,905,258         28,578           CREDIT SUISSE FIRST BOSTON CORP, N Y         1,592,200         0.015         17,842,729         24,318           DEUTSCHE BANC ALEX BROWN INC, NEW         5,966,494         0.017         61,529,551         102,816           DEUTSCHE BANC ALEX BROWN INC, NEW YOI         1,748,800         0.022         27,532,137         39,300           DRESDNER KLEINWORT BENSON, NEW YOI         1,496,492         0.018         15,257,852         27,354           GOLDMAN SACHS & CO, NY         4,190,535         0.014         40,692,556         60,494           GOLDMAN SACHS & CO, NY         4,190,535         0.014         40,692,556         60,494           GOLDMAN SACHS INTL, LONDON         2,376,134         0.012         23,074,027         27,855           HSBC	Broker Name	Shares	Per Share	Trades	Commission
CAZENOVE & CO, LONDON         5,896,752         0.005         19,818,902         28,337           CITIGROUP GBL MKTS INC, NEW YORK         370,003         0.039         10,340,511         14,500           CITIGROUP GBL MKTS/SALOMON, NEW YOF         1,564,853         0.018         30,574,449         28,732           CREDIT SUISSE FIRST BOSTON CUROPE),         4,563,707         0.006         19,905,258         28,878           CREDIT SUISSE FIRST BOSTON CORP, N Y         1,592,200         0.015         17,842,729         24,318           CS FIRST BOSTON EQUITIES, LONDON         3,459,655         0.005         22,427,940         17,745           DEUTSCHE BANC ALEX BROWN INC, NEW         5,886,494         0.017         61,525,551         102,816           DEUTSCHE BANK AG (INTL EQUITIES),         5,342,978         0.010         42,665,086         55,365           DRESDNER KLEINWORT BENSON, NEW YOI         1,784,800         0.022         27,532,137         39,330           OGLDMAN SACHS INTL, LONDON         3,929,911         0.013         59,94,137         52,217           HOARG SOVETT SECS LTD, LONDON         2,376,134         0.012         23,074,027         27,855           HSBE BANK PLC (MIDLAND BK)(JAC), LONDC         4,99,770         0.046         12,072,072         18,873     <					
CITIGROUP GBL MKTS INC, NEW YORK         370,003         0.039         10,340,511         14,500           CITIGROUP GBL MKTS/SALCMON, NEW YOF         1,564,853         0.018         30,574,449         28,732           CREDIT SUISSE FIRST BOSTON (EUROPE),         4,563,707         0.006         19,905,258         28,578           CREDIT SUISSE FIRST BOSTON CORP, N Y         1,592,200         0.015         17,842,729         24,318           CS FIRST BOSTON EQUITIES, LONDON         3,499,655         0.005         22,427,940         17,745           CSFB (HK) LIMITED, HONG KONG         1,283,623         0.012         12,825,771         15,284           DEUTSCHE BANK AG (INTL EQUITIES),         5,342,978         0.010         42,665,086         55,365           DRESDNER KLEINWORT BENSON, NEW YOI         1,784,800         0.022         27,532,137         39,330           DRESDNER KLEINWORT WASSERSTEIN,         1,495,492         0.018         15,257,852         27,354           GOLDMAN SACHS & CO, NY         4,190,535         0.014         40,692,556         60,494           GOLDMAN SACHS & CD, NY         4,190,535         0.014         12,072,072         18,873           J P MORGAN SECS LTD, LONDON         1,291,728         0.018         17,811,409         23,039					
CITIGROUP GBL MKTS/SALOMON, NEW YOF         1,564,853         0.018         30,574,449         28,732           CREDIT SUISSE FIRST BOSTON (EUROPE),         4,563,707         0.006         19,905,258         28,578           CREDIT SUISSE FIRST BOSTON CORP, N Y         1,592,200         0.015         17,442,729         24,318           CS FIRST BOSTON CORP, N Y         1,592,200         0.015         12,842,771         15,284           DEUTSCHE BANC ALEX BROWN INC, NEW         5,986,494         0.017         61,529,551         102,816           DEUTSCHE BANK AG (INTL EQUITIES),         5,342,978         0.010         42,665,086         55,365           DRESDNER KLEINWORT BENSON, NEW YOI         1,784,800         0.022         27,532,137         39,330           DRESDNER KLEINWORT WASSERSTEIN,         1,495,492         0.018         15,257,852         27,354           GOLDMAN SACHS & CO, NY         4,190,535         0.014         40,692,556         60,494           GOLDMAN SACHS & CO, NY         4,190,535         0.014         23,074,027         27,855           HSC BANK PLC (MIDLAND BK/JJAC), LONDON         2,376,134         0.012         23,074,027         21,857           J P MORGAN SECS LTD, LONDON         1,291,728         0.018         17,270,72         18,873					
CREDIT SUISSE FIRST BOSTON (EUROPE),         4,563,707         0.006         19,905,258         28,578           CREDIT SUISSE FIRST BOSTON CORP, N Y         1,592,200         0.015         17,842,729         24,318           CS FIRST BOSTON EQUITIES, LONDON         3,459,655         0.005         22,427,940         17,745           CSFB (HK) LIMITED, HONG KONG         1,263,623         0.012         12,825,771         15,284           DEUTSCHE BANC ALEX BROWN INC, NEW         5,986,494         0.017         61,529,551         102,816           DEUTSCHE BANK AG (INTL EQUITIES),         5,342,978         0.010         42,665,086         55,365           DRESDNER KLEINWORT BENSON, NEW YOI         1,784,800         0.022         27,532,137         39,330           DRESDNER KLEINWORT WASSERSTEIN,         1,495,492         0.018         15,257,852         27,354           GOLDMAN SACHS & CO, NY         4,190,535         0.014         40,692,556         60,494           GOLDMAN SACHS NTL, LONDON         3,929,911         0.013         59,094,137         52,217           HOARE GOVETT SECS LTD, LONDON         1,291,728         0.018         12,072,072         18,873           J P MORGAN SECS SLTD, LONDON         1,291,728         0.018         17,811,409         23,039					
CREDIT SUISSE FIRST BOSTON CORP, N Y         1,592,200         0.015         17,842,729         24,318           CS FIRST BOSTON EQUITIES, LONDON         3,459,655         0.005         22,427,940         17,745           CSFB (HK) LIMITED, HONG KONG         1,263,623         0.012         12,825,771         15,284           DEUTSCHE BANC ALEX BROWN INC, NEW         5,386,494         0.017         61,529,551         102,816           DEUTSCHE BANC ALEX BROWN INC, NEW VOI         1,784,800         0.022         27,532,137         39,330           DRESDNER KLEINWORT BENSON, NEW VOI         1,784,800         0.022         27,532,137         39,330           DRESDNER KLEINWORT WASSERSTEIN,         1,495,492         0.018         15,257,852         27,354           GOLDMAN SACHS NT, LONDON         3,929,911         0.013         59,094,137         52,217           HOARE GOVETT SECS LTD, LONDON         2,376,134         0.012         23,074,027         27,855           HSBC BANK PLC (MIDLAND BK)(JAC), LONDX         409,770         0.046         12,072,072         18,873           J P MORGAN SECS LTD, LONDON         1,217,28         0.018         17,811,409         23,039           LEHMAN BROS INC, NEW YORK         4,159,812         0.008         24,874,075         31,302					
CS FIRST BOSTON EQUITIES, LONDON         3,459,655         0.005         22,427,940         17,745           CSFB (HK) LIMITED, HONG KONG         1,263,623         0.012         12,825,771         15,284           DEUTSCHE BANK AG (INTL EQUITIES),         5,342,978         0.010         42,665,086         55,365           DRESDNER KLEINWORT BENSON, NEW YOI         1,784,800         0.022         27,532,137         39,330           DRESDNER KLEINWORT BENSON, NEW YOI         1,784,800         0.022         27,532,137         39,330           DRESDNER KLEINWORT WASSERSTEIN,         1,495,492         0.018         15,257,852         27,354           GOLDMAN SACHS INTL, LONDON         3,929,911         0.013         59,094,137         52,217           HOARE GOVETT SECS LTD, LONDON         2,376,134         0.012         23,074,027         27,855           HSBC BANK PLC (MIDLAND BK)(JAC), LONDC         409,770         0.046         12,072,072         18,873           J P MORGAN SECS LTD, LONDON         1,291,728         0.018         17,811,409         23,039           LEHMAN BROS INC, NEW YORK         4,159,812         0.008         24,874,075         31,302           LEHMAN BROS, LONDON         1,93,743         0.011         10,763,617         13,469           ME		4,563,707	0.006	19,905,258	28,578
CSFB (HK) LIMITED, HONG KONG         1,263,623         0.012         12,825,771         15,284           DEUTSCHE BANC ALEX BROWN INC, NEW         5,986,494         0.017         61,529,551         102,816           DEUTSCHE BANK AG (INTL EQUITIES),         5,342,978         0.010         42,665,086         55,365           DRESDNER KLEINWORT BENSON, NEW YOI         1,784,800         0.022         27,532,137         39,330           DRESDNER KLEINWORT WASSERSTEIN,         1,495,492         0.018         15,257,852         27,354           GOLDMAN SACHS & CO, NY         4,190,535         0.014         40,692,556         60,494           GOLDMAN SACHS INTL, LONDON         3,929,911         0.013         59,094,137         52,217           HOARE GOVETT SECS LTD, LONDON         2,376,134         0.012         23,074,027         27,855           HSBC BANK PLC (MIDLAND BK)(JAC), LONDX         409,770         0.046         12,072,072         18,873           J P MORGAN SECS LTD, LONDON         1,291,728         0.018         17,811,409         23,039           LEHMAN BROS INC, NEW YORK         4,159,812         0.008         24,874,075         31,302           LEHMAN BROS, LONDON         3,084,798         0.031         54,405,522         95,316           MERRILL LYN		1,592,200	0.015	17,842,729	24,318
DEUTSCHE BANC ALEX BROWN INC, NEW         5,986,494         0.017         61,529,551         102,816           DEUTSCHE BANK AG (INTL EQUITIES),         5,342,978         0.010         42,665,086         55,365           DRESDNER KLEINWORT BENSON, NEW YOI         1,784,800         0.022         27,532,137         39,330           DRESDNER KLEINWORT WASSERSTEIN,         1,495,492         0.018         15,257,852         27,354           GOLDMAN SACHS & CO, NY         4,190,535         0.014         40,692,556         60,494           GOLDMAN SACHS INTL, LONDON         3,329,911         0.013         59,094,137         52,217           HOARE GOVETT SECS LTD, LONDON         2,376,134         0.012         23,074,027         27,855           HSBC BANK PLC (MIDLAND BK)(JAC), LONDO         409,770         0.046         12,072,072         18,873           J P MORGAN SECS LTD, LONDON         1,291,728         0.018         17,811,409         23,039           LEHMAN BROS SINC, NEW YORK         4,159,812         0.008         24,874,075         31,302           LEHMAN BROS SLONDON         3,084,798         0.031         54,405,522         95,316           MERRILL LYNCH INTL (3L GLOSS), LONDON         1,193,743         0.011         10,763,617         13,469           M	CS FIRST BOSTON EQUITIES, LONDON	3,459,655	0.005	22,427,940	17,745
DEUTSCHE BANK AG (INTL EQUITIES),         5,342,978         0.010         42,665,086         55,365           DRESDNER KLEINWORT BENSON, NEW YOI         1,784,800         0.022         27,532,137         39,330           DRESDNER KLEINWORT WASSERSTEIN,         1,495,492         0.018         15,257,852         27,354           GOLDMAN SACHS & CO, NY         4,190,535         0.014         40,692,556         60,494           GOLDMAN SACHS INTL, LONDON         3,929,911         0.012         23,074,027         27,855           HSBC BANK PLC (MIDLAND BK)(JAC), LONDON         2,376,134         0.012         23,074,027         27,855           HSBC BANK PLC (MIDLAND BK)(JAC), LONDC         409,770         0.046         12,072,072         18,873           J P MORGAN SECS LTD, LONDON         1,291,728         0.018         17,811,409         23,039           LEHMAN BROS INC, NEW YORK         4,159,812         0.008         24,874,075         31,302           LEHMAN BROS, LONDON         3,084,798         0.031         54,405,522         95,316           MERRILL LYNCH INTL (3L GLOSS), LONDON         1,193,743         0.011         10,763,617         13,469           MERRILL LYNCH INTL (3L GLOSS), LONDON         1,193,743         0.014         10,704,666         100,539	CSFB (HK) LIMITED, HONG KONG	1,263,623	0.012	12,825,771	15,284
DRESDNER KLEINWORT BENSON, NEW YOI         1,784,800         0.022         27,532,137         39,330           DRESDNER KLEINWORT WASSERSTEIN,         1,495,492         0.018         15,257,852         27,354           GOLDMAN SACHS & CO, NY         4,190,535         0.014         40,692,556         60,494           GOLDMAN SACHS INTL, LONDON         3,929,911         0.013         59,094,137         52,217           HOARE GOVETT SECS LTD, LONDON         2,376,134         0.012         23,074,027         27,855           HSBC BANK PLC (MIDLAND BK)(JAC), LOND(         409,770         0.046         12,072,072         18,873           J P MORGAN SECS LTD, LONDON         1,291,728         0.018         17,811,409         23,039           LEHMAN BROS INC, NEW YORK         4,159,812         0.008         24,874,075         31,302           LEHMAN BROS SECS ASIA LTD, HONG KON(         1,074,513         0.012         14,152,854         12,806           LEHMAN BROS, LONDON         1,193,743         0.011         10,763,617         13,469           MERRILL LYNCH INTL LONDON EQUITIES         1,580,455         0.064         56,749,666         100,539           MERRILL LYNCH, NY         364,845         0.037         12,702,661         13,242           MIZUHO SECURITIES US	DEUTSCHE BANC ALEX BROWN INC, NEW	5,986,494	0.017	61,529,551	102,816
DRESDNER KLEINWORT WASSERSTEIN,1,495,4920.01815,257,85227,354GOLDMAN SACHS & CO, NY4,190,5350.01440,692,55660,494GOLDMAN SACHS INTL, LONDON3,929,9110.01359,094,13752,217HOARE GOVETT SECS LTD, LONDON2,376,1340.01223,074,02727,855HSBC BANK PLC (MIDLAND BK)(JAC), LONDC409,7700.04612,072,07218,873J P MORGAN SECS LTD, LONDON1,291,7280.01817,811,40923,039LEHMAN BROS INC, NEW YORK4,159,8120.00824,874,07531,302LEHMAN BROS SECS ASIA LTD, HONG KONI1,074,5130.01214,152,85412,806LEHMAN BROS, LONDON3,084,7980.03154,405,52295,316MERRILL LYNCH INTL (3L GLOSS), LONDON1,193,7430.01110,763,61713,469MERRILL LYNCH PIERCE FENNER,3,745,4280.00928,456,32133,671MERRILL LYNCH, NY354,8450.03712,702,66113,242MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INC, NY7,849,1100.01424,264,21719,469SALOMON BROS INTL INC, NEW YORK2,30,7920.01024,254,21719,469SALOMON BROS INTL INC, NEW YORK2,30,7920.01024,264,21719,469SALOMON B	DEUTSCHE BANK AG (INTL EQUITIES),	5,342,978	0.010	42,665,086	55,365
GOLDMAN SACHS & CO, NY4,190,5350.01440,692,55660,494GOLDMAN SACHS INTL, LONDON3,929,9110.01359,094,13752,217HOARE GOVETT SECS LTD, LONDON2,376,1340.01223,074,02727,855HSBC BANK PLC (MIDLAND BK)(JAC), LONDX409,7700.04612,072,07218,873J P MORGAN SECS LTD, LONDON1,291,7280.01817,811,40923,039LEHMAN BROS INC, NEW YORK4,159,8120.00824,874,07531,302LEHMAN BROS SECS ASIA LTD, HONG KONK1,074,5130.01214,152,85412,806LEHMAN BROS, LONDON3,084,7980.03154,405,52295,316MERRILL LYNCH INTL (3 GLOSS), LONDON1,193,7430.01110,763,61713,469MERRILL LYNCH INTL LONDON EQUITIES1,580,4550.06456,749,666100,539MERRILL LYNCH PIERCE FENNER,3,745,4280.00928,456,32133,671MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON5,173,4230.00944,087,46348,400 <td>DRESDNER KLEINWORT BENSON, NEW YOI</td> <td>1,784,800</td> <td>0.022</td> <td>27,532,137</td> <td>39,330</td>	DRESDNER KLEINWORT BENSON, NEW YOI	1,784,800	0.022	27,532,137	39,330
GOLDMAN SACHS INTL, LONDON3,929,9110.01359,094,13752,217HOARE GOVETT SECS LTD, LONDON2,376,1340.01223,074,02727,855HSBC BANK PLC (MIDLAND BK)(JAC), LONDX409,7700.04612,072,07218,873J P MORGAN SECS LTD, LONDON1,291,7280.01817,811,40923,039LEHMAN BROS INC, NEW YORK4,159,8120.00824,874,07531,302LEHMAN BROS SECS ASIA LTD, HONG KONK1,074,5130.01214,152,85412,806LEHMAN BROS, LONDON3,084,7980.03154,405,52295,316MERRILL LYNCH INTL (3L GLOSS), LONDON1,193,7430.01110,763,61713,469MERRILL LYNCH INTL (3L GLOSS), LONDON1,580,4550.06456,749,666100,539MERRILL LYNCH INTL LONDON EQUITIES1,580,4550.06456,749,666100,539MERRILL LYNCH PIERCE FENNER,3,745,4280.00928,456,32133,671MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INCI, NY7,849,1100.01469,468,402110,742NOMURA SECS INTL INC, NEW YORK2,303,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON2,443,240.09212,419,93022,383UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,196 <td< td=""><td>DRESDNER KLEINWORT WASSERSTEIN,</td><td>1,495,492</td><td>0.018</td><td>15,257,852</td><td>27,354</td></td<>	DRESDNER KLEINWORT WASSERSTEIN,	1,495,492	0.018	15,257,852	27,354
HOARE GOVETT SECS LTD, LONDON2,376,1340.01223,074,02727,855HSBC BANK PLC (MIDLAND BK)(JAC), LONDC409,7700.04612,072,07218,873J P MORGAN SECS LTD, LONDON1,291,7280.01817,811,40923,039LEHMAN BROS INC, NEW YORK4,159,8120.00824,874,07531,302LEHMAN BROS SECS ASIA LTD, HONG KONC1,074,5130.01214,152,85412,806LEHMAN BROS, LONDON3,084,7980.03154,405,52295,316MERRILL LYNCH INTL (3L GLOSS), LONDON1,193,7430.01110,763,61713,469MERRILL LYNCH INTL LONDON EQUITIES1,580,4550.06456,749,666100,539MERRILL LYNCH PIERCE FENNER,3,745,4280.00928,456,32133,671MERRILL LYNCH, NY354,8450.03712,702,66113,242MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,325,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON2,44,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION B	GOLDMAN SACHS & CO, NY	4,190,535	0.014	40,692,556	60,494
HSBC BANK PLC (MIDLAND BK)(JAC), LONDC409,7700.04612,072,07218,873J P MORGAN SECS LTD, LONDON1,291,7280.01817,811,40923,039LEHMAN BROS INC, NEW YORK4,159,8120.00824,874,07531,302LEHMAN BROS SECS ASIA LTD, HONG KONC1,074,5130.01214,152,85412,806LEHMAN BROS, LONDON3,084,7980.03154,405,52295,316MERRILL LYNCH INTL (3L GLOSS), LONDON1,193,7430.01110,763,61713,469MERRILL LYNCH INTL LONDON EQUITIES1,580,4550.06456,749,666100,539MERRILL LYNCH PIERCE FENNER,3,745,4280.00928,456,32133,671MERRILL LYNCH, NY354,8450.03712,702,66113,242MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863 <td>GOLDMAN SACHS INTL, LONDON</td> <td>3,929,911</td> <td>0.013</td> <td>59,094,137</td> <td>52,217</td>	GOLDMAN SACHS INTL, LONDON	3,929,911	0.013	59,094,137	52,217
J P MORGAN SECS LTD, LONDON1,291,7280.01817,811,40923,039LEHMAN BROS INC, NEW YORK4,159,8120.00824,874,07531,302LEHMAN BROS SECS ASIA LTD, HONG KONK1,074,5130.01214,152,85412,806LEHMAN BROS, LONDON3,084,7980.03154,405,52295,316MERRILL LYNCH INTL (3L GLOSS), LONDON1,193,7430.01110,763,61713,469MERRILL LYNCH INTL LONDON EQUITIES1,580,4550.06456,749,666100,539MERRILL LYNCH PIERCE FENNER,3,745,4280.00928,456,32133,671MERRILL LYNCH, NY354,8450.03712,702,66113,242MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,300,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON244,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	HOARE GOVETT SECS LTD, LONDON	2,376,134	0.012	23,074,027	27,855
LEHMAN BROS INC, NEW YORK4,159,8120.00824,874,07531,302LEHMAN BROS SECS ASIA LTD, HONG KONK1,074,5130.01214,152,85412,806LEHMAN BROS, LONDON3,084,7980.03154,405,52295,316MERRILL LYNCH INTL (3L GLOSS), LONDON1,193,7430.01110,763,61713,469MERRILL LYNCH INTL LONDON EQUITIES1,580,4550.06456,749,666100,539MERRILL LYNCH PIERCE FENNER,3,745,4280.00928,456,32133,671MERRILL LYNCH, NY354,8450.03712,702,66113,242MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON2,44,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	HSBC BANK PLC (MIDLAND BK)(JAC), LOND(	409,770	0.046	12,072,072	18,873
LEHMAN BROS SECS ASIA LTD, HONG KONK1,074,5130.01214,152,85412,806LEHMAN BROS, LONDON3,084,7980.03154,405,52295,316MERRILL LYNCH INTL (3L GLOSS), LONDON1,193,7430.01110,763,61713,469MERRILL LYNCH INTL LONDON EQUITIES1,580,4550.06456,749,666100,539MERRILL LYNCH PIERCE FENNER,3,745,4280.00928,456,32133,671MERRILL LYNCH, NY354,8450.03712,702,66113,242MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	J P MORGAN SECS LTD, LONDON	1,291,728	0.018	17,811,409	23,039
LEHMAN BROS, LONDON3,084,7980.03154,405,52295,316MERRILL LYNCH INTL (3L GLOSS), LONDON1,193,7430.01110,763,61713,469MERRILL LYNCH INTL LONDON EQUITIES1,580,4550.06456,749,666100,539MERRILL LYNCH PIERCE FENNER,3,745,4280.00928,456,32133,671MERRILL LYNCH, NY354,8450.03712,702,66113,242MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON2,413,2440.09212,419,93022,383UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	LEHMAN BROS INC, NEW YORK	4,159,812	0.008	24,874,075	31,302
MERRILL LYNCH INTL (3L GLOSS), LONDON1,193,7430.01110,763,61713,469MERRILL LYNCH INTL LONDON EQUITIES1,580,4550.06456,749,666100,539MERRILL LYNCH PIERCE FENNER,3,745,4280.00928,456,32133,671MERRILL LYNCH, NY354,8450.03712,702,66113,242MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,44,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	LEHMAN BROS SECS ASIA LTD, HONG KON(	1,074,513	0.012	14,152,854	12,806
MERRILL LYNCH INTL LONDON EQUITIES1,580,4550.06456,749,666100,539MERRILL LYNCH PIERCE FENNER,3,745,4280.00928,456,32133,671MERRILL LYNCH, NY354,8450.03712,702,66113,242MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	LEHMAN BROS, LONDON	3,084,798	0.031	54,405,522	95,316
MERRILL LYNCH PIERCE FENNER,3,745,4280.00928,456,32133,671MERRILL LYNCH, NY354,8450.03712,702,66113,242MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON2,44,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	MERRILL LYNCH INTL (3L GLOSS), LONDON	1,193,743	0.011	10,763,617	13,469
MERRILL LYNCH, NY354,8450.03712,702,66113,242MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON244,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	MERRILL LYNCH INTL LONDON EQUITIES	1,580,455	0.064	56,749,666	100,539
MIZUHO SECURITIES USA INC. NEW YORK3,728,1260.00628,755,00123,160MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON244,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	MERRILL LYNCH PIERCE FENNER,	3,745,428	0.009	28,456,321	33,671
MORGAN J P SECS INC, NEW YORK1,009,3330.03722,115,54237,393MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON244,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	MERRILL LYNCH, NY	354,845	0.037	12,702,661	13,242
MORGAN STANLEY & CO INC, NY7,849,1100.01469,468,402110,742MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON244,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	MIZUHO SECURITIES USA INC. NEW YORK	3,728,126	0.006	28,755,001	23,160
MORGAN STANLEY & CO INTL, LONDON2,322,8450.02337,266,36653,511NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON244,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	MORGAN J P SECS INC, NEW YORK	1,009,333	0.037	22,115,542	37,393
NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON244,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	MORGAN STANLEY & CO INC, NY	7,849,110	0.014	69,468,402	110,742
NOMURA SECS INTL INC, NEW YORK2,030,7920.01024,254,21719,469SALOMON BROS INTL LTD, LONDON2,355,7630.01825,869,17641,498SG SEC LONDON LTD, LONDON244,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643	MORGAN STANLEY & CO INTL, LONDON	2,322,845	0.023	37,266,366	53,511
SALOMON BROS INTL LTD, LONDON       2,355,763       0.018       25,869,176       41,498         SG SEC LONDON LTD, LONDON       244,324       0.092       12,419,930       22,383         UBS EQUITIES, LONDON       5,173,423       0.009       44,087,463       48,400         UBS WARBURG ASIA LTD, HONG KONG       4,433,967       0.006       17,036,196       24,881         UNION BANK SWITZERLAND SECS, LONDON       1,748,499       0.014       17,189,067       23,863         OTHERS       23,643,452       164,518,781       327,643			0.010	24,254,217	
SG SEC LONDON LTD, LONDON244,3240.09212,419,93022,383UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643					
UBS EQUITIES, LONDON5,173,4230.00944,087,46348,400UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643			0.092		
UBS WARBURG ASIA LTD, HONG KONG4,433,9670.00617,036,19624,881UNION BANK SWITZERLAND SECS, LONDON1,748,4990.01417,189,06723,863OTHERS23,643,452164,518,781327,643					
UNION BANK SWITZERLAND SECS, LONDON         1,748,499         0.014         17,189,067         23,863           OTHERS         23,643,452         164,518,781         327,643					
OTHERS 23,643,452 164,518,781 327,643					

### Schedule of Broker Commissions - Foreign Equity Trades

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

ary - n., pl. 1. A statistician computes insurance risks and iums. Actuary - n., pl. 1. A tician who computes insuranc and premiums. Actuary - n.,

A statistician who computes ance risks and premiums. Ac*n., pl.* **1.** A statistician wh uto insurance risks and in **S. CTUARIAL SECTION** A tician who computes insuranc and remiums. Actuary - *n., p* statistician who computes inice risks and remiums. Actuar *pl.* **1.** A statistician who cominsurance risks and

**Actuary** - *n., pl.* **1.** A statistician who computes insurance risks and premiums.

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### **Actuarial Certification**

#### **Actuarial Certification Statement**

This is to certify that Mellon Human Resources & Investor Solutions has prepared an actuarial valuation of the Arizona State Retirement Plan as of June 30, 2003.

Actuarial calculations have been made with respect to a total of 395,021 members – 202,398 active employees, 123,365 inactive members, and 64,697 retired members and beneficiaries, and 4,561 members on long term disability. In addition, there are 769 System retirees receiving ad hoc benefits from Plan assets.

The actuarial calculations establish a total benefit cost of 13.92% of the annual compensation of employees. The total normal cost rate is 13.03% of compensation, and the required amortization payment determined in accordance with Section 38-737 is 0.89% of compensation.

The actuarial cost factors as of June 30, 2003 are as follows:

I. Actuarial accrued liabilities				
A. Liabilities due to member's benefits				
1. Active members				
a. Retirement benefits	\$10,435,386,360			
b. Health insurance premium supplement	851,386,523			
c. Disability deferred retirement benefits	207,034,730			
d. Pre-retirement death benefits	236,526,342			
e. Withdraw al benefits	324,951,254			
f. Total active members		\$12,055,285,209		
2. Inactive members		819,702,224		
3. Retired members and beneficiaries		10,017,088,581		
4. Disabled members (deferred retirement)		328,285,163		
5. Benefit increases for other-than-plan parti	cipants	12,589,518		
6. Total present value of benefits	_		\$23,232,950,695	
B. Other miscellaneous liabilities and reserves			0	
C. Reserve for future PBIs		_	1,070,688,752	
D. Total actuarial accrued liability		_		\$24,303,639,447
II. Actuarial value of assets				\$23,516,898,511
III. Unfunded actuarial accrued liability (Item I - Item II)			_	786,740,936
IV. Amortization of unfunded actuarial accrued liability	(per Section 38-73	37)	\$64,941,767	
V. Normal cost for the year		_	951,116,145	
VI. Total contribution for the year (Item IV + Item V)		_		\$1,016,057,912
VII. Total covered payroll (projected to 2003/2004 plan	year)			7,296,827,756
VIII. Total contribution for fiscal years 2004 and 2005 a	is a percentage of o	covered payroll		
		401(a) Account	401(h) Account	Total
A. Employee Portion		5.20%	0.00%	5.20%
B. Employer Portion		<u>4.10%</u>	<u>1.10%</u>	5.20%
C. Total		9.30%	1.10%	10.40%

#### **Actuarial Certification**

The Board adopted a new asset valuation method on November 15, 2002, to be effective for valuations on and after June 30, 2002.

On November 21, 2003, the Board adopted assumptions to be effective for valuations on and after June 30, 2003. These assumptions are as follows:

1. Investment yield - 8% per annum.

2. Salary increases

Years of	Merit	Total Salary
Service	Component	Increase
1	5.00%	9.50%
2	4.00	8.50
3	2.50	7.00
4	1.80	6.30
5	1.40	5.90
6	1.25	5.75
7	1.00	5.50
8	0.80	5.30
9	0.75	5.25
10	0.50	5.00
11 to 19	0.25	4.75
20 or more	0.00	4.50
Age	Males	Females
20	0.06%	0.07%
30	0.07	0.10
40	0.21	0.21
50	0.51	0.49

1.20

3. Rates of disability

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

Years of Service Male Members						
Age	1	2	5	8	10+	
20	36.42%	28.95%	13.64%	7.11%	12.77%	
30	20.55	16.12	9.43	5.14	5.65	
40	16.98	10.11	6.65	4.00	2.27	
50	16.92	9.04	5.02	3.45	1.55	
60	18.24	9.63	3.71	2.61	1.08	

1.09

60

## **Actuarial Certification**

Years of Service					
	Fe	emale Membe	ers		
Age	1	2	5	8	10+
20	30.53%	26.40%	20.77%	13.80%	21.48%
30	19.37	16.52	10.89	8.11	8.21
40	16.93	11.74	6.61	4.61	2.39
50	14.57	9.27	5.22	2.87	1.67
60	14.32	9.39	4.66	2.37	0.88

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

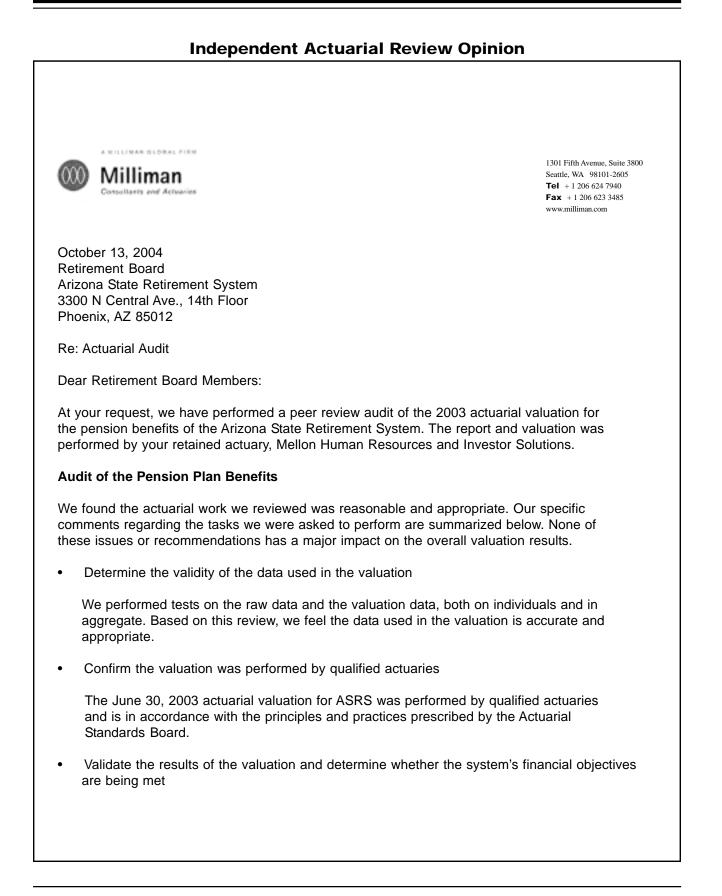
	Y	ears of Servic	е		
Age	10-14	20-24	25	30	31+
50	3.00%	4.00%	7.00%	17.50%	12.50%
55	3.00	6.00	16.25	17.50	12.50
60	7.00	23.75	26.75	35.00	30.00
62	30.00	40.00	43.00	55.00	50.00
65	30.00	30.00	33.00	35.00	30.00
66 and above	30.00	30.00	33.00	35.00	30.00

- 6. Mortality rates 1994 GAM Static, Projected to 2005 with Projection Scale AA, with no setback.
- 7. Mortality rates after disability Post disablement mortality rates are based on experience of other large public sector systems and ASRS' own experience.
- 8. Valuation assets Market value less ten year phase-in of Excess (Shortfall) Investment income.
- 9. Funding method Projected unit-credit.

Qualified actuaries have performed the actuarial calculations 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.

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



### **Independent Actuarial Review Opinion**

Although we did not reproduce the total liabilities of ASRS, we did an in-depth analysis of the liabilities of sample members. The benefit provisions of ASRS were generally accounted for in an accurate manner and the actuarial assumptions and methods are being applied correctly. We reviewed the application of the funding method and find it is reasonable and that it meets generally accepted actuarial standards. Given the current funding methods and assumptions, we believe the calculated contribution rate provides an appropriate level of funding for the non-PBI benefits.

Thank you for the opportunity to serve the ASRS and offer our recommendations regarding the actuarial process and report. We appreciate the diligent efforts from the Mellon and ASRS staff in helping us to complete this audit project.

Sincerely,

Karen I. Steffen, F.S.A., M.A.A.A. Consulting Actuary KIS/nlo

# Actuarial Valuation of the Plan as of June 30, 2003

February 6, 2004

Retirement Board Arizona State Retirement System 3300 North Central Avenue 14th Floor Phoenix, Arizona 85012

Dear Retirement Board Members:

We certify that the information contained in the attached 2003 actuarial valuation report is accurate and fairly presents the actuarial position of the Arizona State Retirement Plan (the Plan) as of June 30, 2003.

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 and Fellows of the Society of Actuaries. Eva Yum is a Fellow of the Canadian Institute of Actuaries and Charlie Chittenden is a member of the American Academy of Actuaries. Both are experienced in performing valuations for large public retirement systems.

#### **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 Number 25 (GASB No. 25), and it summarizes census data.

Valuations are performed annually, as of June 30, the last day of both the Plan year and ASRS's 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 rates calculated in even numbered years are in effect for the next two Plan years. For example, the rate calculated in June 30, 2002 valuation

# Actuarial Valuation of the Plan as of June 30, 2003

report (5.20% for each member and each employer) will apply in the fiscal years beginning July 1, 2003, and July 1, 2004. The rates calculated in odd-numbered years are purely advisory – they never take effect.

#### Funding Progress

The actual contribution rate in fiscal 2004 and 2005 is 5.20% for each member and each employer, as the 2002 valuation report calculated. This 2003 valuation calculates a hypothetical rate of 6.96%. These rates do not include contributions to the LTD program. Actual contributions have matched the calculated contributions in recent years 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 specifies that the UAAL is to be amortized over a rolling 30-year period once the surplus disappears. As of June 30, 2003, the ASRS Plan no longer has a surplus, so the amortization period for this valuation (and all future valuations) is 30 years.

#### **Benefit Provisions**

There has been one benefit enhancement since those of the 2002 legislative session to extend the Rural Health Insurance Premium Benefit for two years to June 30, 2005. Table 18 gives details of benefit provisions.

#### **Assumptions and Methods**

We performed an experienced study for the five-year period ended June 30, 2002, and recommended assumption changes based on the findings. On November 21, 2003, the Board adopted our recommended actuarial assumptions, to be effective June 30, 2003. On November 15, 2002, the Board adopted a change in the method of valuing actuarial assets – namely, 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. Table 19 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 No. 25.

#### Data

ASRS staff supplied census data for retired, active, and inactive participants as of June 30, 2003. 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's Comprehensive Annual Financial Report (CAFR). ASRS also prepared all supporting schedules in the actuarial section of the CAFR.

# Actuarial Valuation of the Plan as of June 30, 2003

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

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

Eva S. Yum, FSA, EA Associate Principal

# General Actuarial Information

The following charts 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, 2003

Non-Retired Members	State Employees	Teachers	Political Subdivision Teachers Employees Tota				
Number of members (active)	44,492	64,406	93,500	202,398			
Average age	45.3	44.1	44.6	44.6			
Average annual salary	\$35,262	\$40,119	\$29,181	\$33,998			
Average years of service	8.9	10.3	7	8.5			

#### As of June 30, 2003

Retired Members	State Employees	Teachers	Political Subdivision Employees	Total	
Number of retirees	16,714	19,852	28,131	64,697	
Average age	70.9	68.5	70.5	70.0	
Average monthly benefit	\$1,243	\$2,014	\$1,069	\$1,404	
Average years of service	17.4	23.3	16.6	18.9	

Of all plan and system retirees at July 1, 2003, 54.1 percent received annuities of more than \$1,000 per month. Less than 1.3 percent receives less than \$100 per month. All other annuity ranges were between 3.7 and 5.7 percent. Of the retirees 13.3 percent are less than 60.0 years old and 68.6 percent are less than 75.

One of the most critical factors bearing on retirement costs is that of changes in the average salary level of active participants. The following chart will show, for five fiscal years (fiscal year ending June 30, 2003), the average salary level for state employees, for teachers, and for political subdivision employees other than teachers, and the average for all groups combined.

## **General Actuarial Information**

#### **Financing Objective**

The financing objective of the Arizona State Retirement System is to maintain reasonable stable contribution rates and to achieve an ultimate funded status of 100%. As of June 30, 2003, the date of the most recent actuarial valuation, this funding level is 96.8 percent. When the present actuarial asset of \$23.517 billion is compared to the actuarial liabilities, the asset side of the actuarial balance sheet is below the amount of actuarial liabilities by the amount of \$786.7 million.

A statutory change effective in 1998 requires that an actuarial valuation be performed only following even-numbered years, rather than annually. This biannual valuation recommends contribution rates for a two-year period. The contribution rates recommended in the valuation for the fiscal year ended June 30, 2002 will remain in effect through the fiscal year that ends June 30, 2005. These rates are described below.

#### Normal Costs and Required Contribution Rates

The Plan's normal cost for fiscal year (FY) 2003-2004 and for FY 2002-2003 is 11.90 percent. 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 was 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.

Pursuant to Arizona statute, the ASRS consulting actuary recommends a contribution rate that will result in a funding level of 100 percent at the end of the actuarial funding period. The actual contribution rate (including long-term disability (LTD) for FY 2002-03 was 2.49 percent of pay (2.00 percent pension and health insurance, 0.49 percent LTD). In fiscal year 2003-04 the rate is 5.70 percent of pay (5.20 percent pension and health insurance, 0.50 percent LTD). This rate was determined by the 2002 valuation. Both employee and employer members contribute this rate.

Components of the normal cost are as follows:

Retirement benefits	9.73%
Health insurance premium supplement	0.72
Survivor benefits	0.29
Withdrawals	0.83
Long-term disability benefit	<u>0.33</u>
Total, normal cost	11.9
Amortization of the UAAL	<u>(1.50)</u>
Required contribution rate for FY 2003/2004	10.40%
Shared by employee and employer	
Required contribution rate for FY 2003/2004	10.40%
Shared by employee and employer	Divided by 2
Required matching contribution rate	<u>5.20%</u>

# **General Actuarial Information**

#### 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.

#### 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 were 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 funding method splits the liability for all incurred LTD claims at the valuation date into Current Costs and Amortization components, as explained below:

#### **Current Cost Component**

This component equals expected cash payments for benefits and expenses for the 12-month period following the valuation date, less expected income from LTD assets for that period.

#### Amortization Component

This component equals an amortization payment for the excess of the total liability for LTD claims expected to be paid more than one year after the valuation date over the market value of LTD assets. The amortization period expires on June 30, 2010.

The LTD contribution rate for fiscal year 2004 and fiscal year 2003 is 1.00 percent, shared equally by employees and employers. Of this amount, 0.74 percent funds current liabilities, and 0.26 percent amortizes the liabilities transferred from the Plan in 1995. The program's liabilities are scheduled to be amortized each twelve-month period through fiscal year 2010.

As of June 30, 2003 and June 30, 2002, LTD assets were \$110.2 million, \$94.0 million respectively. Benefit payments were 54.7 million for fiscal year 2003 and 54.8 million for fiscal year 2002.

#### Excerpt from Table 17 Actuarial Valuation, June 30, 2003

The 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) an employee's sixty-fifth birthday,
  - (b) an employee'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 employee's age and his years of total credited service equals eighty.
- 2. Monthly Life Annuity

The product of a benefit multiplier (as determined below) and the participant's best 36-month average compensation (in last 120 months) multiplied by his or her years of total credited service.

Years of Credited Service	Benefit Multiplier
Less than 20	2.10%
20.0 to 24.99	2.15%
25.0 to 29.99	2.20%
30 or more	2.30%

Note: Members hired after the effective date of the adoption of the graded multiplier have a maximum benefit equal to 80% of their 36-month final average earnings.

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:

#### AGE AT DATE OF RETIREMENT

Years of																
Service	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
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%

Provided, however, that if the employee meets the Rule of 77 (but not the Rule of 80), the reduction will be 3% for each unit below 80.

6. Normal Form of Benefit

Straight life annuity 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 either five or ten 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.

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

1. Long Term Disability

Monthly benefit equal to two-thirds of monthly compensation, reduced by any social security disability or workers' compensation benefits, 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.

 Disability Payments if Participant 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 employee'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) two times participant's contributions to the plan, with interest, and

(ii) the amount of the participant'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 Participant 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 participant is fully vested in his or her accrued benefit.

2. Benefits Upon Vesting

A fully vested participant is entitled to either:

- (a) the enhanced refund option, or
- (b) the retirement benefit payable at normal retirement earned to the date of participant's termination.

The enhanced refund option allows employees who terminate prior to eligibility for retirement to receive a refund of their employee contributions with interest. In addition, if an employee 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 employees 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.

#### F. RETIREE HEALTH INSURANCE PREMIUM SUPPLEMENT

1. Eligibility

Retirement or disability after 5 years of credited service and covered by an employersponsored 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. 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 employees with five to nine years of service the benefits are the same dollar amounts as above multiplied by a vesting fraction equal to 10% for each completed year of service (i.e., 50% to 90%).

See Section W for a discussion of the temporary benefit payable to retirees in "Rural" coverage areas.

#### G. AUTOMATIC COST OF LIVING ADJUSTMENT BASED ON EXCESS INVESTMENT EARNINGS

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.

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.

#### H. EMPLOYEE AND EMPLOYER CONTRIBUTIONS

The contribution rate for the biennium beginning on July 1<sup>st</sup> of the odd numbered year is based on the results of the most recent actuarial valuation as of the last day of the even numbered plan year preceding the biennium. Participants' contribution rate is equal to the required employer contribution rate. For the biennium July 1, 1999 to June 30, 2001, the required contribution rate is 2.17%. For the biennium July 1, 2001 to June 30, 2003, the required contribution rate is 2.00%. For the biennium July 1, 2003 to June 30, 2005, the required contribution rate is 5.20%.

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

1. 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 ore 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.

# J. 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%).

#### K. 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.

#### L. 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.

# M. 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%.

# N. 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.

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 longterm 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 30year 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.

# O. 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.

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

1. No material changes.

# Q. 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.

# R. LEGISLATED PLAN CHANGES ENACTED BY THE 1998 LEGISLATURE OF THE STATE OF ARIZONA

1. No material changes.

# S. 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 25% with five years of service and increases 15% 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.

# T. LEGISLATED PLAN CHANGES ENACTED BY THE 2000 LEGISLATURE OF THE STATE OF ARIZONA

1. The age restriction on the Permanent Benefit Increase was eliminated.

# U. 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 and 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 month
- 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.

# V. LEGISLATED PLAN CHANGES ENACTED BY THE 2002 LEGISLATURE OF THE STATE OF ARIZONA

1. No material changes.

# **Summary of Benefit Provisions**

# W. 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		verage Without Parts A & B	Insurance Coverage With Medicare Parts A & B*		
July 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>\*</sup> Combination plans that include Medicare eligible and non-Medicare eligible retiree and dependent coverage require a \$400 monthly out-of-pocket payment.

### Statement Of Actuarial Methods and Assumptions Used In Determining Cost (Adopted By Board Action On November 21, 2003) Effective As Of June 30, 2003

#### A. ACTUARIAL ASSUMPTIONS

1. Investment Yield Rate

8% per annum, compounded annually

- 2. Mortality
  - (a) Pre-retirement

1994 GAM – Static Table, Projected to 2005 with Projected Scale AA, with no age setback. Rates at representative ages are shown below.

#### RATES OF MORTALITY (ACTIVE)

Age	Male Participants	Female Participants
20	0.000411	0.000238
25	0.000592	0.000249
30	0.000758	0.000314
35	0.000805	0.000423
40	0.000981	0.000600
45	0.001366	0.000815
50	0.002112	0.001183
55	0.003583	0.002100
60	0.006679	0.004201
65	0.012447	0.008173
70	0.020095	0.012993

(b) Post-retirement

Non Disabled rates are based on the 1994 GAM – Static Table, Projected to 2005 with Projection Scale AA with no age 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:

#### 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
1998	170,864	\$5,164,127,700	\$30,224	2.70%
1999	176,368	5,487,933,600	31,116	3
2000	183,924	5,750,294,662	31,265	0
2001	191,252	6,356,698,800	33,237	3.7
2002	198,970	6,989,339,000	35,128	5.7
2003	202,398	7,296,827,756	36,052	2.6

# SCHEDULE OF PLAN RETIREES ADDED TO AND REMOVED FROM ROLLS LAST 6 YEARS

Year Ended	Retirants and Beneficiaries Added to Rolls	Retirants and Beneficiaries Removed from Rolls	Retirants and Beneficiaries End of Year	Percentage Increase in Annual Benefits	Average Benefit
1998	3,353	1,179	51,917	3.90%	\$11,784
1999	4,380	1,193	55,104	4.3	12,288
2000	4,822	1,888	58,038	9.9	13,500
2001	4,224	3,342	58,920	7.6	14,532
2002	3,954	2,528	60,346	13.2	16,457
2003	5,955	1,604	64,697	2.2	16,812

# SCHEDULE OF UNFUNDED (OVER) ACCRUED LIABILITIES - PLAN LAST 10 YEARS

			Assets as a % of			UAL as a %
Year Ended June 30	Aggregate Accrued Liabilities Plan	Actuarial Value of Net Plan Assets	Accrued Liabilities Plan	Unfunded (over) Accrued Liabilities Plan (UAL)	Active Member Payroll	of Active Member Payroll
1994	\$9,668,031,500	\$10,540,457,100	109%	(\$872,425,600)	\$3,973,369,600	(22.0)%
1995	10,303,617,000	11,520,933,300	112	(1,217,316,300)	4,228,264,800	(28.8)
1996	11,110,688,400	12,578,870,100	113	(1,468,181,700)	4,465,496,000	(32.9)
1997	12,385,445,400	14,169,191,400	114	(1,783,746,000)	4,674,843,500	(38.2)
1998	13,638,356,506	16,168,476,400	119	(2,530,119,894)	4,968,476,529	(50.9)
1999	16,121,899,529	18,760,959,854	116	(2,639,060,325)	5,487,933,600	(48.1)
2000	17,548,523,131	21,126,877,491	120	(3,578,354,360)	5,750,294,662	(62.2)
2001	20,268,514,444	22,855,143,539	113	(2,586,629,095)	6,356,698,800	(40.7)
2002	22,586,920,751	23,623,015,969	105	(1,036,095,218)	6,989,339,000	(14.8)
2003	24,303,639,447	23,516,898,511	97	786,740,936	7,296,827,756	10.8

#### SOLVENCY TEST LAST 10 YEARS

	Aggrega						
Year Ended	(1) Active Member	(2) Retirees and	(3) Active Members (Employer Financed	Net Assets Available for	Liabi by	on of Acc ilities Cov Net Asso ble for Bo	vered ets
30-Jun	Contributions	Beneficiaries	Portion)	Benefits	(1)	(2)	(3)
1994	\$2,265,838,800	\$3,929,200,100	\$3,472,992,600	\$10,540,457,100	100%	100%	125.1%
1995	2,465,878,000	4,257,018,600	3,580,720,400	11,520,933,300	100	100	134.0
1996	2,422,775,000	4,740,637,300	3,947,275,600	12,578,870,100	100	100	137.2
1997	2,442,205,300	5,122,420,700	4,820,819,400	14,169,191,400	100	100	137.0
1998	2,571,206,900	5,530,497,100	5,536,652,506	16,168,476,400	100	100	145.7
1999	2,679,011,640	6,454,089,795	6,988,798,093	18,760,959,854	100	100	137.8
2000	2,758,428,341	8,817,967,086	7,233,553,039	21,126,877,491	100	100	132.0
2001	2,876,445,119	9,589,562,912	7,427,960,808	22,855,143,539	100	100	139.8
2002	3,046,008,125	10,597,364,389	8,943,548,237	23,623,015,969	100	100	112.0
2003	3,110,690,039	11,428,652,014	9,764,297,394	23,516,898,511	100	100	91.9

# 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
1994	\$4,126,000,000	\$125,060,129		3.14%	4.09%
1995	4,432,000,000	158,559,931		3.75%	3.75%
1996	4,632,000,000	150,854,417	*	3.36%	3.95%
1997	4,836,000,000	150,500,186	*	3.20%	3.20%
1998	5,164,000,000	152,375,838	*	3.05%	3.05%
1999	5,488,000,000	152,916,525		2.85%	2.85%
2000	5,750,000,000	124,930,657		2.17%	2.17%
2001	6,564,000,000	133,504,099		2.00%	2.00%
2002	6,989,000,000	135,274,945		2.00%	2.00%
2003	7,297,000,000	142,356,325		5.20%	5.20%

\*Excludes contributions of \$884,669, \$905,200 and \$926,800 for ASRS System members who contributed 7.49 percent during 1998, 1997 and 1996, respectively.

#### ANALYSIS OF FINANCIAL EXPERIENCE FOR THE PLAN

(In Millions) Last 10 Years

Year Ended June 30	Unfunded Actuarial Liability (UAAL), Prior Year	Normal Cost for the Year	Contri- butions for the Year	Interest at 8% on UAAL	On Normal Cost	On Contri- butions	Total	Expected UAAL	Actual UAAL	Gain (Loss) for the Year
1994	(\$849.23)	\$423.20	(\$256.84)	(\$67.94)	\$33.86	(\$10.27)	(\$44.36)	(\$727.23)	(\$872.43)	\$145.20
1995	(872.43)	448.92	(324.93)	(69.79)	35.91	(13.00)	(46.88)	(795.31)	(1,217.32)	422.01
1996	(1,217.32)	460.39	(299.72)	(97.39)	36.83	(11.99)	(72.54)	(1,129.19)	(1,468.18)	338.99
1997	(1,468.18)	482.42	(309.39)	(117.45)	38.59	(12.38)	(91.24)	(1,386.39)	(1,783.75)	397.36
1998	(1,783.75)	506.17	(321.35)	(142.70)	40.49	(12.85)	(115.06)	(1,713.98)	(2,530.12)	816.14
1999	(2,530.12)	540.46	(347.97)	(202.41)	43.24	(13.92)	(173.09)	(2,510.72)	(2,639.06)	128.34
2000	(2,639.06)	601.15	(283.77)	(211.12)	48.09	(11.35)	(174.38)	(2,496.06)	(3,578.35)	1,082.29
2001	(3,578.35)	631.66	(367.20)	(286.27)	50.53	(14.69)	(250.42)	(3,564.30)	(2,586.63)	(977.67)
2002	(2,586.63)	746.91	(321.78)	(206.93)	59.75	(12.87)	(160.05)	(2,321.54)	(1,036.10)	(1,285.44)
2003	(1,036.10)	831.73	(375.52)	(82.89)	66.54	(15.02)	(31.37)	(611.26)	786.74	(1,397.97)

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Statistic - n. 1. An item of numerical data.
2. An estimate of a variable, as an average or mean, made on the basis of a sample taken from a larger set of data.

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#### **PUBLIC SCHOOLS**

Agua Fria UHS Dist. 216 Aquila Elem. Dist. 63 Ajo Unified Dist. 15 Alhambra Elem. Dist. 68 Alpine Elem. Dist. 7 Altar Valley Dist. 51 Amphitheater Unified Dist. 10 Antelope UHS Dist. 50 Apache Elem. Dist. 42 Apache Junction Unified Dist. 43 Arlington Elem. Dist. 47 Ash Creek Elem. Dist. 53 Ash Fork Unified Dist. 31 Avondale Elem. Dist. 44 Bagdad Unified Dist. 20 Balsz Elem. Dist. 31 Beaver Creek Elem. Dist. 26 Benson Elem. Dist. 9 Benson UHS Dist. 9 Bicentennial UHS Dist. 76 Bisbee Unified Dist. 2 Blue Elem. Dist. 22 Blue Ridge Unified Dist. 32 Bonita Elem. Dist. 16 Bouse Elem, Dist, 26 Bowie Unified Dist. 14 Buckeye Elem. Dist. 33 Buckeye UHS Dist. 201 Bullhead City Elem. Dist. 15 Camp Verde Unified Dist. 28 Canon Elem. Dist. 50 Cartwright Elem. Dist. 83 Casa Grande Elem, Dist, 4 Casa Grande UHS Dist. 82 Catalina Foothills Unified Dist. 16 Cave Creek Unified Dist. 93 Cedar Unified Dist. 25 Chandler Unified Dist. 80 Chevelon Butte Elem. Dist. 5 Chinle Unified Dist. 24 Chino Valley Unified Dist. 51 Chloride Elem. Dist. 11

Clarkdale-Jerome Elem, Dist, 3 Clifton Unified Dist. 3 **Cobre Valley Institute** Cochise Elem, Dist, 26 Cochise Technology Dist. #01 Coconino Assoc of Vocational and Ind. Tech Colorado City Unified Dist. 14 Colorado River Union H.S. Dist. 2 Combs (J.O.) Elem. Dist. 44 Concho Elem. Dist. 6 Congress Elem. Dist. 17 Continental Elem. Dist. 39 Coolidge Unified Dist. 21 Cottonwood?Oak Creek Elem. Dist. 6 Crane Elem. Dist. 13 Creighton Elem. Dist. 14 Crown King Elem. Dist. 41 Dan Hinton School Deer Valley Unified Dist. 97 Double Adobe Elem. Dist. 45 Douglas Unified Dist. 27 Duncan Unified Dist. 2 Dysart Unified Dist. 89 Eagle Elem. Dist. 45 East Valley Technical Institute Elfrida Elem. Dist. 12 Elov Elem. Dist. 11 Esperanza Academy Accommodation School Fisher (Ruth) Elem. Dist. 90 Flagstaff Unified Dist. 1 Florence Unified Dist. 1 Flowing Wells Unified Dist. 8 Ft. Huachuca Accom School Ft. Thomas Unified Dist. 7 Fountain Hills Unified Dist. 98 Fowler Elem. Dist. 45 Fredonia-Moccasin Unified Dist. 6 Gadsden Elem. Dist. 32 Ganado Unified Dist. 20 Gila Bend Unified Dist. 24 Gila County Special Services Gila Institute for Technology Gilbert Unified Dist. 41

Glendale Elem, Dist, 40 Glendale UHS Dist. 205 Globe Unified Dist. 1 Grand Canyon Unified Dist. 4 Hackberry Elem. Dist. 3 Hayden-Winkelman Unified Dist. 41 Heber Overgaard USD No. 6 Higley Elem. Dist. 60 Hillside Elem, Dist, 35 Holbrook Unified Dist. 3 Humboldt Unified Dist. 22 Hyder Elem. Dist. No. 16 Indian Oasis-Baboquivari 40 Isaac Elem, Dist, 5 Joseph City Unified Dist. 2 Kayenta Unified Dist. 27 Kingman Elem, Dist, 4 Kirkland Elem. Dist. 23 Klondyke School Dist. 09 Kyrene Elem. Dist. 28 Lake Havasu Unified Dist. 1 Laveen Elem, Dist, 59 Liberty Elem. Dist. 25 Litchfield Elem. Dist. 79 Littlefield Elem. Dist. 9 Littleton Elem. Dist. 65 Madison Elem, Dist, 38 Maine Cons. Elem. Dist. 10 Mammoth-San Manuel Unified Dist. 8 Marana Unified Dist. 6 Mayer Unified Dist. 43 Maricopa Unified Dist. 20 McNary Elem. Dist. 23 McNeal Elem, Dist, 55 Mesa Unified Dist. 4 Miami Unified Dist. 40 Mingus UHS Dist. 4 Mobile Elem. Dist. 86 Mohave Educational Svcs Coop Mohave UHS Dist. 30 Mohave Valley Elem. Dist. 16 Mohawk Vallev Elem, Dist, 17 Morenci Unified Dist. 18

Morristown Elem, Dist, 75 Murphy Elem, Dist, 21 Naco Elem. Dist. 23 Nadaburg Elem. Dist. 81 Navajo County Accomodation Schools Nogales Unified Dist. 1 Oracle Elem. Dist. 2 Osborn Elem. Dist. 8 Owens Whitney Elem. Dist. 6 Page Unified Dist. 8 Palo Verde Elem. Dist. 49 Paloma Elem, Dist, 94 Palominas Elem. Dist. 49 Paradise Valley Dist. 69 Parker Unified Dist. 27 Patagonia Elem. Dist. 6 Patagonia UHS Dist. 20 Payson Unified Dist. 10 Peach Springs Elem. Dist. 8 Peach Springs High School 7 Pearce Elem. Dist. 22 Pendergast Elem, Dist, 92 Peoria Unified Dist. 11 Phoenix Elem. Dist. 1 Phoenix UHS Dist. 210 Picacho Elem, Dist, 33 Pima Unified Dist. 6 Pine Elem. Dist. 12 Pinon Unified Dist. 4 Pomerene Elem, Dist, 64 Prescott Unified Dist. 1 Quartzsite Elem. Dist. 4 Queen Creek Unified Dist. 95 Rainbow School Ray Unified Dist. 3 Red Mesa Unified Dist. 27 Red Rock Elem, Dist, 5 Riverside Elem. Dist. 2 Roosevelt Elem. Dist. 66 Round Valley Unified Dist. 10 Sacaton Elem. Dist. 18 Safford Unified Dist. 1 Sahuarita Unified Dist. 30

St. David Unified Dist. 21 St. Johns Unified Dist. 1 Salome Cons. Elem. Dist. 30 San Carlos Unified Dist. 20 San Fernanado Elem, Dist. 35 San Simon Unified Dist. 18 Sanders Unified Dist. 18 Santa Cruz Elem. Dist. 28 Santa Cruz Valley Dist. 35 Santa Cruz Valley UHS Dist. 840 Scottsdale Unified Dist. 48 Sedona – Oak Creek School Dist. 9 Seligman Unified Dist. 40 Sentinel Elem. Dist. 71 Show Low Unified Dist. 10 Sierra Vista Unified Dist. 68 Skull Valley Elem. Dist. 15 Snowflake Unified Dist. 5 Solomonville Elem, Dist, 5 Somerton Elem. Dist. 11 Sonoita Elem. Dist. 25 Stanfield Elem. Dist. 24 Sunnyside Unified Dist. 12 Superior Unified Dist. 15 Tangue Verde Unified Dist. 13 Tempe Elem. Dist. 3 Tempe UHS Dist. 213 Thatcher Unified Dist. 4 Tolleson Elem. Dist. 17 Tolleson UHS Dist. 214 Toltec Elem. Dist. 22 Tombstone Unified Dist. 1 Tonto Basin School Dist. 33 Topock Elem. Dist. 12 Tuba City Unified Dist. 15 Tucson Unified Dist. 1 Union Elem. Dist. 62 Vail Elem. Dist. 20 Valentine Elem. Dist. 22 Valley UHS Dist. 22 Vernon Elem. Dist. 9 Villa Oasis Inter School Walnut Grove School District

Washington Elem. Dist. 6 Wellton Elem. Dist. 24 Wenden Elem, Dist, 19 Western Maricopa Education Center Whiteriver Unified Dist. 20 Wickenburg Unified Dist. 9 Willcox Unified Dist. 13 Williams Unified Dist. 2 Williamson Valley Elem. Dist. 2 Wilson Elem, Dist, 7 Window Rock Unified Dist. 8 Winslow Unified Dist. 1 Yarnell Elem. Dist. 52 Yavapai County Accomodation School Dist #99 Young Elem. Dist. 5 Yuma County Accommodation School Yucca Elem. Dist 13 Yuma Elem, Dist, 1 Yuma UHS Dist. 30

#### **CHARTER SCHOOLS**

Accelerated Learning Center Accelerated Learning Center Laboratory Acclaim Charter School Academy of Excellence, Inc. Academy of Tucson Adalberto Guerrero Middle School Aha Macav High School American Heritage Academy Chart. School AmeriSchools Arizona Charter Academy Arizona Conservatory for Arts & Academics Arizona Montessori Charter School Arizona School for the Arts Arizona Southwest Preparatory Academy AZ Agribusiness & Equine Center Chart. Sch. AZ Institute of Bus. and Technology (AIBT) Aztec Academy Aztlan Academy, Inc. Ball Charter School **Basis Middle School Benchmark Elementary** Benjamin Franklin Charter School

**Burke Basic Charter School** Canyon Rose Academy Career Pathways Academy Carmel Comm. Integrated Arts Chart. Sch. Carpe Diem Collegiate High School Casey Country Day Charter School Central Arizona Valley Inst of Technology Challenge School, Inc. Charter Foundation, Inc. Children Reaching for the Sky Chester Newton Charter and Montessori Sch. **CI Wilson Academy Country Gardens Charter School Davis Education Center** Desert Technology High School **Desert Rose Academy Desert Springs Academy Charter School** Destiny Schools, Inc. Discovery Academy of St. Johns **Discovery Plus Academy Charter School** Dobson Academy **Dragonflye Charter School** EAGLE Academy Charter School **Eagles Aerie Schools** East Valley Academy Charter Sch. Ecotech Agricultural Charter School Edge EDE Charter School **EDU Preneurship Charter School EDU-Prize Charter School Enterprise Academy Charter School** Esperanza Montessori Academy **Excalibur Charter School** Excel Educations Centers Inc. Excel Education Centers Chino Valley, LLC Excel Education Centers Cottonwood, LLC Excel Education Centers Fort Mohave, LLC Excel Education Centers Prescott, LLC Excel Education Centers Prescott Valley, LLC Excel Education Centers San Carlos, LLC Excel Schools, Inc. Entity Z Accounts Flagstaff Arts & Leadership Academy Flagstaff Jr. Academy Charter School

Franklin Phonetic Primary School Future Development Corp. Gan Yaladeem, the Looking Glass Genesis Academy Charter School Gila County Transition Charter School **Gila Preparatory** G.R.A.D.E. Charter School **Great Expectation Charter School** Happy Valley School, Inc. Ha:San Preparatory and Leadership School Humanistic Ed Authentic Rigorous Transcendent Heritage Academy Inc. Horizon Charter School Humanities and Science Institute Inc. Intelli-School Charter School International Commerce Institute Inc. JWJ Academy James Sandoval Preparatory High School Juniper Tree Academy Khalsa School Kids at Hope Academy, Inc. Killip Dual Language Charter School Kingman Academy of Learning Lake Havasu Charter School Lake Powell Academy Inc. La Paloma Academy Learning Crossroads Basic Academy Learning Institute Life Skills Center of Arizona Luz Academy of Tucson Masada Charter School, Inc Metropolitan Arts Institute Mexicayotl Academy Mingus Mountain Academy Mingus Springs Charter School Mohave Accelerate Learning Center Mountain Rose Academy, Inc. Mountain Oak School Charter School, Inc. Mountain School, Inc. Mountainaire Academy, LLC Multi-Dimensional Literacy Corp New School for the Arts New School for the Arts Middle School

New West Charter School Northern Arizona Voc. Institute of Technology Northland Preparatory Academy North Star Charter School Northwest Az Tech Institute of Vocational Ed Painted Pony Ranch Charter School Paradise Education Center Paramount Academy Park View Middle School Pathfinder Academy, LLC Pathways Charter Schools, Inc Paulden Elementary School PCAE-Edge Peak School, Inc. Phoenix Academy of Performing Arts South Phoenix School of Academic Excellence **Pima Prevention Partnership Pine Forest Charter School** Pinnacle Ed Day Star Academy, LLC Pinnacle Ed East Valley No 1, LLC Pinnacle Ed East Valley No. 2, LLC Pinnacle Ed Freedom Academy, LLC Pinnacle Ed Kino Academy, LLC Pinnacle Ed Pinal, LLC Pinnacle Ed Westmark Arizona Ave., LLC Pinnacle Ed Westmark Chandler Blvd, LLC Point Educational Services **Presidio School** Project YES Middle School, LLC Redwood Elementary Acdemy, LLC Renaissance Education Consort, Inc. Salt River Pima-Maricopa Indian Chart. Sch Scholars' Academy Charter School Scottsdale Educational Enrichment School Scottsdale Institute for the Arts Sedona Charter School Self Development Charter School Sequoia Charter School Sequoia Choice School, LLLP Sequoia Ranch School, LLC Sequoia School LLC Charter School Sequoia Sch for Deaf and Hard of Hearing LLC Sequoia Village School

Sierra Oaks Schools, Inc. Skyline Technical High School **Skyview Charter School** Sonoran Desert School Southern AZ Community Academy Charter Sch Southside Community School Stepping Stones Academy Sunnyside Charter and Montessori School Superior School Tag Elementary Inc. Telani Lake Elementary Sch Academy Telesis Center for Learning, Inc. **Tertulia Charter School** Tolchi' Kooh Charter School Inc. Tri-City Prep High School Tri-City Vo-Tech High School **Tucson Country Day School Tucson Preparatory School Triumphant Learning Center** Valley Academies Inc. Valley Academy for Career & Technology Ed Ventana Academic School Visions Unlimited Academy Inc. Westwind Academy Wilson High School Young Scholars Academy Chart. Sch. Corp.

#### COLLEGES

Arizona Western College Central Arizona College Cochise College Coconino County Community College Eastern Arizona College Maricopa County Comm. Mohave Community College Northland Pioneer College Pima Community College Yavapai College

#### UNIVERSITIES

Arizona State University Northern Arizona University University of Arizona

#### **CITIES AND TOWNS**

City of Apache Junction City of Avondale City of Benson City of Bisbee City of Casa Grande City of Chandler City of Coolidge City of Cottonwood City of Douglas City of El Mirage City of Eloy City of Flagstaff City of Glendale City of Globe City of Goodyear City of Holbrook City of Kingman City of Lake Havasu City of Litchfield Park City of Mesa City of Nogales City of Peoria City of Prescott City of Safford City of San Luis City of Scottsdale City of Sedona City of Show Low City of Sierra Vista City of Somerton City of South Tucson City of Surprise City of Tempe City of Tolleson City of Tombstone City of Willcox City of Williams City of Winslow

City of Yuma Town of Buckeye Town of Camp Verde Town of Carefree Town of Chino Valley Town of Clarkdale Town of Clifton Town of Duncan Town of Eager Town of Florence Town of Fredonia Town of Gila Bend Town of Gilbert Town of Guadalupe Town of Hayden Town of Kearny Town of Miami Town of Oro Valley Town of ParadiseValley Town of Parker Town of Patagonia Town of Pima Town of Queen Creek Town of Sahuarita Town of Snowflake Town of Springerville Town of Superior Town of Taylor Town of Thatcher Town of Wellton Town of Wickenburg Town of Youngtown

### COUNTIES

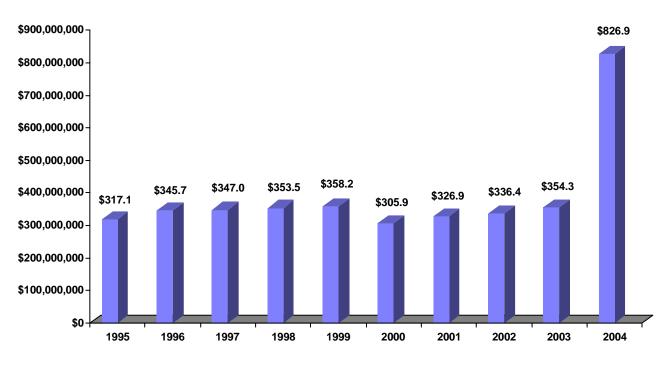
Apache County Cochise County Coconino County Gila County Graham County Greenlee County

Maricopa County Mohave County Navaho County Pima County Pinal County Santa Cruz County Yavapai County Yuma County

#### OTHER

Apache Jct. Fire District Arizona Association of Counties Arizona City Sanitary District Arizona Counties Insurance Pool Arizona Interscholastic Association Arizona Prosecuting Attorney Advisory Council Avra Valley Fire District Buckeye Valley Fire District Buckeye Water Conservation & Drainage Dist **Bullhead City Fire District** Central Arizona Project Central Yavapai Fire District Chino Valley Fire District Christopher Kohls Fire District City of Eloy Housing Authority City of Yuma Housing Authority Colorado River Sewage System County Supervisors Association of Arizona **Crown King Fire District Diamond Star Fire District Drexel Heights Fire District** El Frida Fire District Fire District of Sun City West Flagstaff Housing Authority Fort Mojave Mesa Fire Department **Gila Resources** Green Valley Domestic Water Improv. Dist. **Golder Ranch Fire District** Harquahala Valley Irrigation District Heber-Overgaard Fire District Kino Community Hospital Lakeside Fire District Marana Domestic Water Improvement District

Maricopa Integrated Health System Maricopa Water District Metropolitan Domestic Water Improve. Dist. Montezuma-Rimrock Fire District New Magma Irrigation and Drainage District Northern Apache County Special Healthcare District Northwest Fire District **Picture Rock Fire District** Pima Home Health **Pinetop Volunteer Fire District Pinewood Fire Department Pinewood Sanitary District** Ponderosa Domestic Water Improvement District Posada del sol Health **Puerco Valley Fire District** Queen Valley Domestic Water Impr. Dist. Queen Valley Sanitary District **Roosevelt Irrigation District** San Carlos Irrigation & Drain Sedona-Oakcreek Airport Authority, Inc State of Arizona Sun City Fire District Sun Lakes Fire District Summit Fire District Superstition Mtn Community Facilities Dist **Three Points Fire District** Tourism and Sports Authority **Tucson Airport Authority Tusayan Fire District** Verde Valley Fire District Water Utilities Community District Western Arizona Council of Governments Whetstone Fire District Williams Gateway Airport Authority Yuma County Airport Authority Yuma Mesa Irrigation District



**CONTRIBUTIONS RECEIVED** 

(Dollars in Millions)

YEAR ENDED JUNE 30

## **ACTUAL CONTRIBUTION RATES**

In Percentage of Payroll

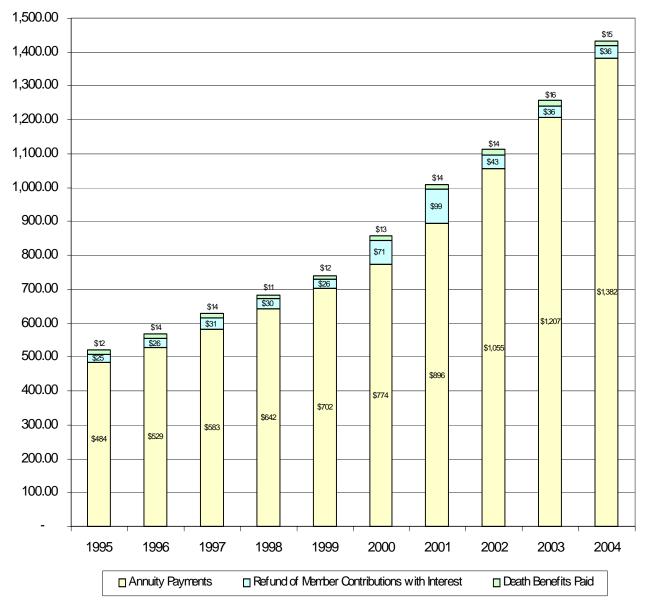
	1995	1996*	1997*	1998*	1999*	2000*	2001*	2002*	2003*	2004*
Employer	3.75	3.85	3.69	3.54	3.34	2.66	2.66	2.49	2.49	5.7
Employee	3.75	3.85	3.69	3.54	3.34	2.66	2.66	2.49	2.49	5.7

The defined benefit contribution rates include long-term disability contributions.

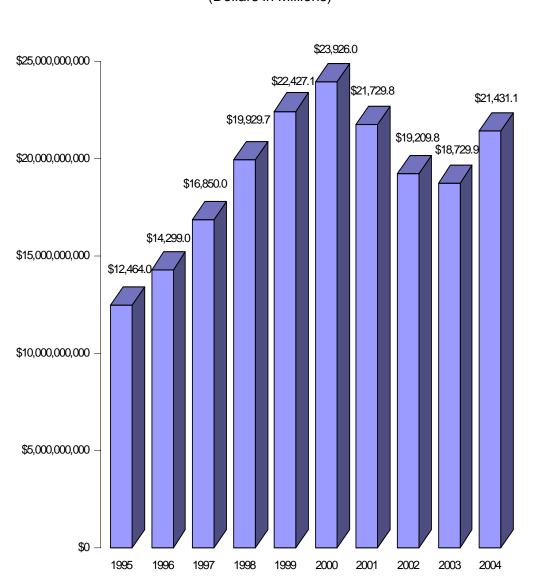
\* Effective January 1, 1996, ASRS system members (defined contribution) and their employers, each pays a 7.50% contribution rate, which includes 0.50% for long-term disability. In addition, employers pay 1.1% for health insurance.

# TOTAL BENEFIT PAYMENTS

(Dollars In Millions)



YEAR ENDED JUNE 30

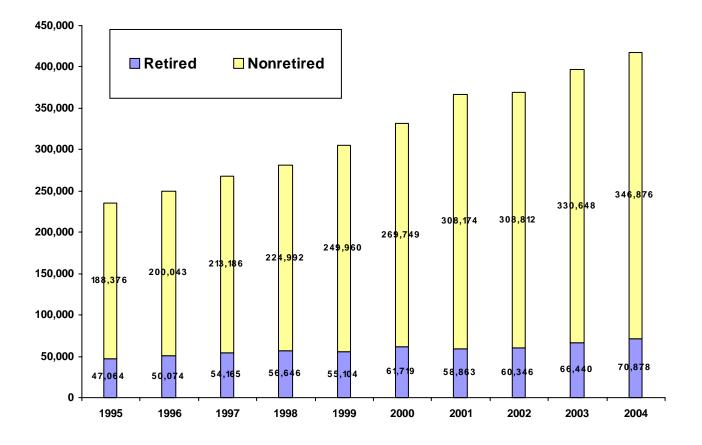


#### TOTAL RESERVES FOR BENEFITS\* At Market

(Dollars in Millions)

### YEAR ENDED JUNE 30

\*For years 1995-1996, total reserves for benefits have previously been reported at cost. These reserves have been restated to fair value in accordance with GASB 25.



#### **NON-RETIRED & RETIRED MEMBERS**

#### YEAR ENDED JUNE 30

The category of retired members includes many survivors of former members, who have qualified for monthly benefit payments rather than for single death benefit payments.

## **REVENUES BY SOURCE**

(Dollars In Thousands)

Fis cal Ye ar	Employer/ Employee Contribution Rate	Em ployer/ Em ployee Long-Term Dis ability Rate*	Employee Contributions as a Percent of Covered Payroll	Employer	Em ployee Contribution Am ount	Member Reimburse- ments and Other	Net Investment Income	Total Additions
1995	3.75%	N/A	85.10%	158,560	158,560	9,429	2,409,805	2,736,354
1996***	* 3.36%	0.49%	100.00%	172,848	172,848	4,376	2,063,878	2,413,951
1997	3.20%	0.49%	100.00%	173,508	173,508	11,481	2,832,718	3,191,215
1998	3.05%	0.49%	100.00%	176,769	176,769	15,462	3,405,203	3,774,202
1999	2.85%	0.49%	100.00%	179,087	179,087	46,171	2,848,321	3,252,665
2000	2.17%	0.49%	100.00%	152,957	152,958	35,348	2,035,312	2,376,575
2001	2.17%	0.49%	100.00%	163,442	163,442	39,535	(1,528,691)	(1,162,273)
2002	2.00%	0.49%	100.00%	168,213	168,213	50,833	(1,768,077)	(1,380,819)
2003	2.00%	0.50%	100.00%	177,157	177,157	93,552	368,631	816,497
2004	5.20%	0.50%	100.00%	413,458	413,462	113,944	3,228,785	4,169,649

\* The LTD Program was established effective July 1, 1995. ASRS members who were receiving LTD benefits prior to July 1, 1995 were transferred to the program on October 1, 1995. Contribution rates began July 1, 1995 with 50 percent from employer funds and 50 percent from active members.

\*\* The 1995 Legislature passed legislation to separate the Health Premium Supplement contributions into a separate account. An actuarial percentage of the employers' contribution is allocated to the Health Insurance Premium Supplement Program.

\*\*\* Effective January 1, 1996, ASRS system members (defined contribution) and their employers, each pays a 7.50% contribution rate, which includes 0.50% for long-term disability. In addition, employers pay 1.1% for health insurance.

### **EXPENSES BY TYPE**

(Dollars in Thousands)

Fiscal Year	Benefit Payments	Administrative and Other	Total
1995	\$519,667	\$5,970	\$525,637
1996	568,901	8,245	577,146
1997	627,591	12,308	639,898
1998	682,336	12,541	694,877
1999	739,979	15,353	755,332
2000	858,308	19,744	878,052
2001	1,008,150	24,640	1,032,790
2002	1,111,809	28,105	1,139,914
2003	1,258,540	37,878	1,296,418
2004	1,432,693	35,745	1,468,438

### **BENEFIT PAYMENTS BY TYPE**

(Dollars in Thousands) Health								
Fiscal Year	Retirement Benefits	Death Benefits	Long-Term Disability	Benefit Supplement	Refunds of Contributions	Total		
1995	\$483,574	\$11,577	\$-	\$-	\$24,516	\$519,667		
1996	480,697	13,593	20,281	27,953	26,377	568,901		
1997	522,525	13,583	30,052	30,149	31,282	627,591		
1998	574,230	10,558	35,112	32,668	29,769	682,336		
1999	627,612	11,485	39,839	34,935	26,108	739,979		
2000	695,426	13,256	41,220	37,651	70,755	858,308		
2001	809,133	14,134	45,848	40,500	98,535	1,008,150		
2002	924,172	14,078	54,804	75,990	42,765	1,111,809		
2003	1,067,481	15,861	54,688	84,534	35,976	1,258,540		
2004	1,238,966	14,859	58,976	83,680	36,212	1,432,693		

Effective July 1, 1995, the ASRS established separate accounts for LTD and Health Benefit Supplement.

	YEARS OF CREDITED SERVICE										
-	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45+	TOTAL
Fiscal year 1994 Average monthly											
benefit	\$126	\$229	\$445	\$701	\$1,032	\$1,555	\$1,980	\$1,880	\$1,335	\$1,105	\$852
Number of retirees	798	6,906	9,000	7,602	6,881	5,615	3,099	829	277	37	41,044
AVERAGE CREDITE Fiscal year 1995	D SERVIC	E									17.9
Average monthly benefit	\$125	\$232	\$454	\$717	\$1,069	\$1,598	\$2,034	\$2,004	\$1,399	\$1,135	\$878
Number of retirees	855	7,345	9,444	7,965	7,274	6,065	3,287	853	260	30	43,378
AVERAGE CREDITE Fiscal year 1996 Average monthly	D SERVIC	E									17.9
benefit	\$123	\$239	\$470	\$741	\$1,118	\$1,669	\$2,119	\$2,125	\$1,506	\$1,230	\$920
Number of retirees	918	7,781	9,849	8,334	7,791	6,654	3,498	884	240	26	45,975
AVERAGE CREDITE Fiscal year 1997 Average monthly	D SERVIC	E									17.9
benefit	\$0	\$244	\$481	\$759	\$1,151	\$1,719	\$2,172	\$2,197	\$1,613	\$1,270	\$945
Number of retirees	1,034	8,446	10,611	8,967	8,421	7,296	3,756	947	240	25	49,743
AVERAGE CREDITED SERVICE 18,000 18,00							18.0				
benefit	\$122	\$254	\$499	\$789	\$1,196	\$1,785	\$2,248	\$2,318	\$1,749	\$1,565	\$982
Number of retirees	1,149	8,788	11,050	9,305	8,786	7,718	3,908	965	226	22	51,917
AVERAGE CREDITE Fiscal year 1999 Average monthly		E									18.0
benefit	\$120	\$259	\$511	\$806	\$1,230	\$1,846	\$2,332	\$2,448	\$1,969	\$1,771	\$1,024
Number of retirees	1,251	9,180	11,581	9,653	9,393	8,475	4,294	1,039	217	21	55,104
AVERAGE CREDITE Fiscal year 2000 Average monthly	D SERVIC	E									18.2
benefit	\$125	\$278	\$550	\$872	\$1,328	\$2,013	\$2,541	\$2,732	\$2,339	\$2,011	\$1,125
Number of retirees	1,321	9,454	12,076	10,061	9,944	9,169	4,683	1,106	207	17	58,038
AVERAGE CREDITE Fiscal year 2001 Average monthly	D SERVIC	E									17.6
benefit Number of retirees	\$130 1,338	\$293 9,450	\$600 12,164	\$939 10,033	\$1,414 10,115	\$2,119 9,611	\$2,694 4,891	\$2,956 1,120	\$2,694 180	\$2,671 18	\$1,211 58,920
AVERAGE CREDITED SERVICE 18.2 Fiscal year 2002							18.2				
Average monthly benefit	\$142	\$317	\$664	\$1,042	\$1,578	\$2,368	\$2,990	\$3,286	\$3,195	\$3,958	\$1,371
Number of retirees	1,397	9,357	12,188	10,145	10,443	\$2,000 10,023	\$,399	1,193	40,100 182	ψ0,000 19	60,346
AVERAGE CREDITE Fiscal year 2003 Average monthly			,				0,000	.,			18.6
benefit	\$149	\$328	\$695	\$1,068	\$1,571	\$2,312	\$2,957	\$3,314	\$3,535	\$4,335	\$1,401
Number of retirees	1,555	9,744	12,811	10,568	11,103	10,838	6,477	1,373	203	φ-,000 25	64,697
AVERAGE CREDITE											18.9

\*Statistics are not available for System retirees of the ASRS

# **RETIREMENT BENEFIT OPTIONS**

#### LIFE ANNUITY – REFUND PROVISION

Provides member monthly benefit for life. If death occurs before all member contributions, plus interest, have been paid, the remaining balance will be paid in a lump sum or at the same monthly amount in effect at the time of the member's death to the designated beneficiary.

#### LIFE ANNUITY – FIVE YEARS CERTAIN

Provides member monthly benefit for life. If death occurs before the retired member receives 60 monthly payments, the remaining monthly payments (or balance of the 60 payments) will be paid to the retired member's designated beneficiary. Members under the age of 103 at retirement are eligible to choose this option.

#### LIFE ANNUITY – TEN YEARS CERTAIN

Provides member monthly benefit for life. If death occurs before the retired member receives 120 monthly payments, the remaining monthly payments (or balance of the 120 monthly payments) will be paid to the retired member's designated beneficiary. Members under the age of 91 are eligible to choose this option.

#### LIFE ANNUITY – FIFTEEN YEARS CERTAIN

Provides member monthly benefit for life. If death occurs before the retired member receives 180 monthly payments, the remaining monthly payments (or balance of the 180 monthly payments) will be paid to the designated beneficiary. Members under the age of 84 are eligible to choose this option.

#### JOINT ANNUITY – 100 percent TO CONTINGENT SURVIVOR

Provides member monthly benefit for life then also provides a life annuity equal to 100 percent of the member's monthly benefit for one designated beneficiary should the beneficiary survive the member. Members may choose this option (1) if the beneficiary is the member's spouse, or (2) if the beneficiary is not the spouse and the member is not more than 10 years older than the beneficiary.

#### JOINT ANNUITY – 66 2/3 percent TO CONTINGENT SURVIVOR

Provides member monthly benefit for life then also provides a life annuity equal to 66 2/3 percent of the member's monthly benefit for one designated beneficiary should the beneficiary survive the member. Members may choose this option (1) if the beneficiary is the member's spouse, or (2) if the beneficiary is not the spouse and the member is not more than 24 years older than the beneficiary.

#### JOINT ANNUITY – 50 percent TO CONTINGENT SURVIVOR

Provides member monthly benefit for life then also provides a life annuity equal to 50 percent of the member's monthly benefit for one designated beneficiary should the beneficiary survive the member.

Members who choose a joint annuity payment option may rescind the option at any time and revert to the Life Annuity – Refund Provision or change the contingent annuitant. A member who reverted to the life annuity may later change back to the same joint annuity option originally elected and name the same or a new contingent annuitant. The member's benefit will be adjusted to reflect any change made.

Year ended June 30, 2004									
Amount of	Options*								
Monthly Benefit	1	2	3	4	5	6	7		
\$1- 299	4,609	326	449	530	1,400	135	220		
300 - 499	4,004	369	612	438	1,290	184	252		
500 - 999	8,807	926	1,715	919	2,648	667	933		
1000 - 1499	5,721	757	1,348	535	2,007	623	859		
1500 - 1999	3,409	414	684	409	1,391	502	682		
2000 & Over	8,556	617	1,081	1,149	3,681	1,437	1,754		
Totals	35,106	3,409	5,889	3,980	12,417	3,548	4,700		

# **RETIRED MEMBERS BY TYPE OF BENEFIT OPTIONS**

# \* Options key

1	Life annuity - refund provision
2	Life annuity - 5 years certain and life
3	Life annuity - 10 years certain and life
4	Life annuity - 15 years certain and life
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

The above schedule does not include system retirees