

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

Comprehensive Annual Financial Report For the Year Ended June 30, 2003

ASRS Mission

The mission of the Arizona State
Retirement System is to contribute
towards its members' long-term
financial security by providing
retirement, disability, survivors'
and health insurance benefits; and
by counseling and disseminating
information to its members.

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

Mr. Karl L. Polen Jr., Chairman Mr. Norman Miller, Vice Chairman

Report prepared by the Arizona State Retirement System staff

Paul Matson, Director



Comprehensive Annual Financial Report Fiscal Year Ended June 30, 2003

CONTENTS

INTRODUCTORY SECTION

- 5 Certificate of Achievement for Excellence in Financial Reporting
- 6 Chairman's Report
- 8 Letter of Transmittal
- 15 Administrative Organization
- 18 Outside Professional Services
- 19 Summary of 2003 Retirement Legislation

FINANCIAL SECTION

- 21 INDEX Financial Section
- 22 Independent Auditors' Report
- 24 Management's Discussion and Analysis
- 29 Statements of Plan Net Assets
- 30 Statements of Changes in Plan Net Assets
- 31 Notes to the Financial Statements

Required Supplemental Information

- 42 Schedule of Funding Progress
- 42 Schedule of Employer Contributions
- 43 Notes to Required Supplemental Information

Additional Supplemental Schedules

- 49 Schedule of Additions and Deductions
- 50 Schedule of Administrative Expenses (Retirement Fund)
- 51 Schedule of Long-Term Disability Expenses
- 52 Schedules of Cash Receipts and Cash Disbursements
- 53 Schedule of Professional Consultant Fees
- 54 Schedule of Net Investment Income Experience by Manager
- 55 Schedule of Total Investment Expenses by Manager
- 56 Schedule of Investment Manager Expenses

INVESTMENT PORTFOLIO SECTION

- 57 INDEX Investment Section
- 58 Investment Report
- 60 Schedule of Investments
- 60 Graph Investment Portfolio Components
- 61 Equity Portfolio Profile
- 62 Fixed Income Portfolio Profile
- 63 Schedule of Broker Commissions
- 65 Chart Investment Allocation
- 65 Rates of Return
- 66 Graph Net Income from Investments
- 66 Ten Year Review of Investment Income

3

CONTENTS

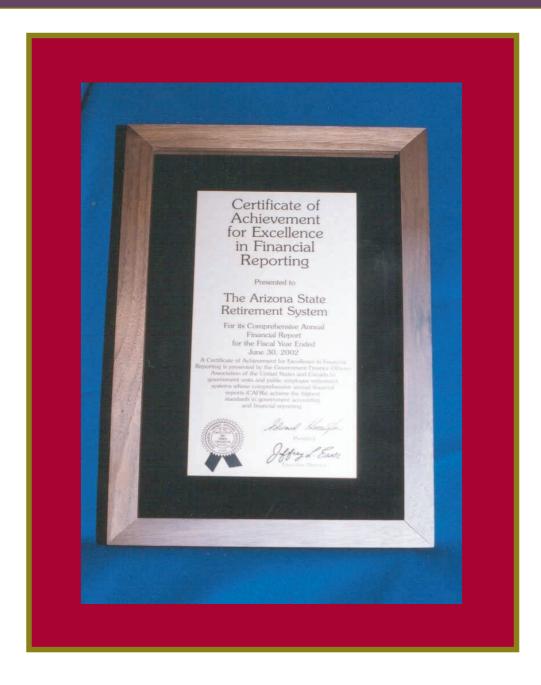
ACTUARIAL SECTION

- 67 INDEX Actuarial Section
- 68 Actuarial Certification Statement
- 71 Actuarial Valuation
- 73 General Actuarial Information
- 74 Financing Objective
- 76 Summary of the Benefit Provisions
- 86 Statement of Actuarial Methods and Assumptions Used in Determining Cost
- 87 Table A Schedule of PLan Active Member Valuation Data Last 6 Years
- 87 Table B Schedule of Plan Retirees Added to and Removed from Rolls Last 6 Years
- Table C Schedule of Unfunded (Over) Accrued Liabilities Plan Last 10 Years
- 89 Table D Solvency Test Last 10 Years
- 90 Table E Schedule of Recommended vs. Actual Plan Contributions Last 10 Years
- 90 Analysis of Financial Experience for the Plan

STATISTICAL SECTION

- 91 INDEX Statistical Section
- 92 List of Employers
- 99 Graph Contributions Received
- 99 Actual Contribution Rates
- 100 Graph Total Benefit Payments
- 101 Graph Total Reserves for Benefits
- 102 Graph Non-Retired and Retired Members
- 103 Schedule of Revenues by Source
- 104 Schedule of Expenses by Type
- 104 Schedule of Benefit Expenses by Type
- 105 Schedule of Average Benefit Payments for Retirees Under the Plan
- 106 Retirement Benefit Options

Certificate of Achievement



The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Arizona State Retirement System for its Comprehensive Annual Financial Report for the fiscal year ended June 30, 2002. This was the 15th consecutive year that the ASRS has achieved this prestigious award.

Letter from the Chairman



ARIZONA STATE RETIREMENT SYSTEM

Paul Matson Director

3300 NORTH CENTRAL AVENUE , PHOENIX, AZ 85012 PHONE 602-240-2000 7660 EAST BROADWAY BOULEVARD, SUITE 108, TUCSON, AZ 85710 PHONE 520-239-3100

December 8, 2003

The Honorable Janet Napolitano Governor of Arizona State Capitol 1700 W. Washington St. Phoenix, Arizona 85007

Dear Governor Napolitano:

On behalf of the Arizona State Retirement System Board, it is my pleasure to present you with the fiftieth Comprehensive Annual Financial Report of the Arizona State Retirement System (ASRS). This report provides an in-depth review of the financial statements, investment information and actuarial and statistical data of the Arizona State Retirement System, which celebrates its 50th Anniversary this year.

The ASRS continues to be recognized as one of the best-run public pension plans in the nation. Since its inception, the ASRS has provided retirement security to Arizona's public servants in state, county and municipal government, and to our teachers and educators. More than 60,000 retirees receive monthly benefit checks totaling more than \$1 billion annually.

I am pleased to report that after several years of a down market, the ASRS fund returned to positive gains this fiscal year and our 10-year rate of return continues to exceed our target rate of return of eight percent. Recently, a comprehensive asset allocation study was performed, and a more broadly diversified asset strategy is being implemented. Additionally, we have completed actuarial and experience studies which enhance our understanding of our obligations to our members allowing us to better plan for the future.

Letter from the Chairman

The ASRS commitment to excellence is reflected in the service we provide to our members. We strive to continually improve member satisfaction and have embarked on an ambitious technology plan that will allow us to continue to provide cost-efficient service to our rapidly expanding membership.

On another front, the Board is in the process of adopting a Governance Policy, which will more effectively outline our roles and responsibilities and provide for enhanced oversight. We take seriously our responsibilities to the State of Arizona, its taxpayers, our members and our member employers.

The Board 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.

Respectfully submitted,

Karl L. Polen Jr. Board Chairman

Arizona State Retirement System

XQ L Polen Ja



ARIZONA STATE RETIREMENT SYSTEM

Paul Matson Director

3300 NORTH CENTRAL AVENUE, PHOENIX, AZ 85012 PHONE 602-240-2000 7660 EAST BROADWAY BOULEVARD, SUITE 108, TUCSON, AZ 85710 PHONE 520-239-3100

December 8, 2003

Mr. Karl L. Polen Jr. Chairman Arizona State Retirement System Board 3300 North Central Avenue, 14th Floor Phoenix, Arizona 85012

Dear Mr. Polen:

I am pleased to present the fiftieth Comprehensive Annual Financial Report of the Arizona State Retirement System (ASRS), a component unit of the State of Arizona, for the fiscal year ended June 30, 2003 (FY 2002-03).

Title 38 of the Arizona Revised Statutes requires the ASRS Board to submit an annual report to the Governor and the Legislature within eight months of the close of each fiscal year. This report complies with all legal requirements governing the preparation and content of annual reports. Responsibility for both the accuracy of the data, and the completeness and fairness of the presentation, rests with the ASRS management.

Accounting principles generally accepted in the United States of America (GAAP) requires that management provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. The MD&A can be found immediately following the Independent Auditors' Report.

This ASRS Comprehensive Annual Financial Report consists of five sections:

• The Introductory Section includes the Board chairman's Letter to the Governor, this Letter of Transmittal, our Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting Award for last year's report, a summary of the ASRS administration structure, a list of consultants providing services to the ASRS, an organizational chart of the ASRS, and a summary of the FY 2002-03 retirement-related legislation.

- The Financial Section includes the Independent Auditors' Report, Management's Discussion and Analysis, the ASRS combined financial statements, including footnotes, and supplemental schedules.
- The Investment Portfolio Section presents a listing of ASRS investments as well as supplemental schedules.
- The Actuarial Section includes the independent consulting actuary's certification statement, a summary of benefit provisions, results of the most recent actuarial valuation, the ASRS financing objective, and general actuarial information.
- The Statistical Section includes information concerning our membership, benefit payments, and additional financial data.

History and Overview

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

At the end of FY 2002-03, total ASRS membership, including active, inactive, and retired members is 397,088, and the number of ASRS employer members is 703, including school districts and charter schools, state colleges and universities, and local, county and state governments.

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

The ASRS staff provides administrative support to the ASRS Board to carry out the ASRS statutory mandates. During FY 2002-03, more than 60,000 retired annuitants, their survivors, and disabilitants received a monthly benefit totaling in excess of \$75 million. More than 40,000 retired members are enrolled in the ASRS-sponsored medical or dental plans.

Major Initiatives and Accomplishments Fiscal Year July 1, 2002 - June 30, 2003

As the ASRS celebrated its 50th Anniversary, a number of initiatives and accomplishments are worth noting:

Three new members were appointed to the ASRS Board by Governor Janet Napolitano. ASRS Board members are appointed to three-year terms by the governor and confirmed by the Arizona State Senate. Four members of the Board must have a minimum of 10 years investment experience. There is no limit on the number of terms a Board member may serve. During FY 2002-03, the following Board members were appointed:

- Dr. Keith Meredith, appointed as a member at large; term to expire on January 20, 2006.
- Mr. Lawrence Trachtenberg, appointed as a representative of the public; term to expire on January 20, 2006.
- Mr. Steven Zeman, appointed as a representative of state employees; term to expire on January 20, 2006.

Mr. LeRoy Gilbertson, Executive Director of the ASRS, announced his retirement, effective January 3, 2003. Mr. Gilbertson had served as Executive Director of the ASRS since January 1994.

After an extensive nation-wide search, the Board appointed Mr. Paul Matson, formerly the ASRS Chief Investment Officer, as Director, effective January 6, 2003.

Investment Management

The overall investment performance of the ASRS Fund was 2.4 percent for FY 2002-03. The ASRS met or outperformed established benchmarks for investment returns for five of its six internally managed portfolios for FY 2002-03:

| _ | E1 Stock Portfolio | Outperformed benchmark by 43 basis points |
|---|--------------------|---|
| _ | E2 Stock Portfolio | Outperformed benchmark by 13 basis points |
| _ | E3 Stock Portfolio | Under-performed benchmark by 3 basis points |
| _ | E4 Stock Portfolio | Outperformed benchmark by 8 basis points |
| _ | F1 Bond Portfolio | Outperformed benchmark by 46 basis points |
| _ | F2 Bond Portfolio | Outperformed benchmark by 29 basis points |

In other Investment Management developments, the ASRS:

- Oversaw 23 externally managed portfolios, 14 of which met or outperformed established benchmarks for investment returns for FY 2002-03.
- Awarded a Custodial Service contract to Mellon Trust.
- Issued a RFP for U.S. Equity Large Cap Manager Search, analyzed and interviewed prospective managers, and awarded contracts to nine Large Cap Manager portfolios (two internally managed portfolios and seven externally managed portfolios); assets transitioned by ASRS Investment Management Division.
- Issued a RFP for U.S. Mid Cap Manager Search, analyzed and interviewed prospective managers, awarded contracts to seven Mid Cap Manager portfolios (two internally managed portfolios and five externally managed portfolios); assets transitioned by ASRS Investment Management Division.
- Commenced a Total Fund Asset Allocation Study, which includes broad asset class mix, U.S.
 equity sub-asset class allocation, asset class benchmarks, and passive/active management
 targets.

Member Services

The Member Services Division Call Center is the method of contact utilized most frequently by members, making it the most visible aspect of the ASRS' service delivery. By using information technology and assigning 19 employees full time to the Call Center, Member Services reduced telephone wait time from an average of five minutes to 27 seconds. It reduced the abandonment rate from an average 21 percent of calls to 4 percent of calls. As a result, the percentage of overall member satisfaction with the ASRS telephone service increased from 78 percent in FY 2001-02, to 84 percent in FY 2002-03.

External Affairs

The External Affairs Division added two new positions in FY 2002-03: The position of Communications and Media Relations Manager now oversees all ASRS publications, the content of the ASRS website, and is responsible for all media inquiries. The position of Rules Coordinator was added to begin the process of writing a series of rules on a variety of subject areas for the agency.

In other developments, External Affairs:

- Implemented a new tracking and communication system. All communication to employers can
 be sent via e-mail, making the system cost effective and efficient. The program can target
 specific groups, do mail merges, e-mails, reports, additional notes and track requests. A
 database of 1,600, primarily employer partners, receive the e-mail report on a regular basis.
- Created an outreach program to train employers about the ASRS. The program is designed to
 increase employers' knowledge base, keep them current with changes in law, provide a forum
 to ask questions and a way to meet and network with other employers in the same field.
- Facilitated 24 Employer Conference meetings held throughout the state, reaching nearly 400
 employer members. An additional 90 meetings that targeted new employers, special conferences, Social Security and special requests made by employers were also conducted.

Financial Services

The ASRS saw record numbers of new retirees, as well as significant increases in other service request areas, for FY 2002-03. Among them:

- Processed a record 5,467 new retirees, a 20 percent increase from FY 2001-02.
- Calculated a record 12,033 service purchase requests, a 13 percent increase from FY 2001-02
- Received approval from the Government Information Technology Agency to issue a RFP for a financial accounting system. The new system will reduce manual work by 60-80 percent and will provide more timely and flexible reporting.

Administrative Services

In the face of rising health care costs, the ASRS continues to provide health insurance options for

retirees. The Board Committee on Health Insurance and Long Term Disability was charged with researching long-term solutions. Related to health care, the ASRS:

- Negotiated a no-rate increase for the Medicare+Choice HMO, Senior Supplement, Indemnity and PPO plans, effective January 1, 2003.
- Negotiated a minimal 3 precent increase on the Non-Medicare HMO Plan, effective January 1, 2003
- Negotiated a no-premium increase for all health care plans effective, January 1, 2004.

Information Services

The ASRS continued implementation of a five year Information Technology Plan that includes transition to the Public Employee Retirement Information System, a customized database built specifically to deliver ASRS services. The System has a target completion date of 2006. In FY 2002-03, the ASRS:

- Implemented a new retiree systems application that more efficiently processes new retiree applications.
- Implemented an enhanced reporting systems application that more efficiently processes actuarial information.
- Implemented a redesigned and upgraded ASRS website that provides a framework for enhanced member services in the future.

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) and its predecessor, the National Council on Government Accounting. The basic financial statements are presented in accordance with the guidelines established by GASB Statement No. 25, "Financial Reporting for Defined Benefit Pension Plans", GASB No. 34 "Basic Financial Statements and Management's 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, which is the best designation attainable. It means that in the opinion of our independent auditors, 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 in conformity with accounting principles generally accepted in the United States of America.

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 Audit Committee. An audit plan is prepared biennially based on a risk analysis performed by the Internal Audit Department.

The Audit Committee, a committee appointed by the 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 managers, and the total portfolio is kept diversified between broad asset classes of U.S. Equities, U.S. Fixed Income, and International Equities.

The overall performance of the ASRS Fund was 2.4 percent for FY 2002-03.

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 internal and external audit procedures are in place. Oversight and direction responsibilities are ensconced with the 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 Board's investment objectives, rent and retiree payroll. For FY 2002-03, 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. An adequate funding level gives members assurance that their pension benefits are secure. Actuarial valuations are conducted to determine funding levels. State statutes require the ASRS to conduct an annual actuarial valuation of assets and liabilities and a biennial actuarial determination of contribution rates. According to the ASRS' most recent assets and liabilities actuarial valuation, dated June 30, 2002, the actuarial present value of the assets of the ASRS was \$23.6 billion. (This value includes an asset valuation method upward of \$4.1 billion to the book value of assets as a result of the actuarial asset valuation method.) When the present actuarial assets of \$23.6 billion are compared to the actuarial liabilities, the asset side of the actuarial balance sheet exceeds the amount of actuarial liabilities by \$1.0 billion, a 104.6 percent funding rate. 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 current valuation is presented in the required supplementary information, Schedule of Funding Progress.

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 Comprehensive Annual Financial Report for the fiscal year ended June 30, 2002. 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 generally accepted accounting principles 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.

Management Themes

The ASRS has engaged in an equity and efficiency review, the purpose of which is to identify areas where the agency can be managed even more efficiently, while ensuring and enabling the fair and equitable disbursement of benefits.

Finally, an agency governance initiative is expected to place the ASRS in a position to effectively engage in long-range strategic planning, which in turn will guide decision making in such areas as resource allocation and policy initiatives.

Acknowledgments

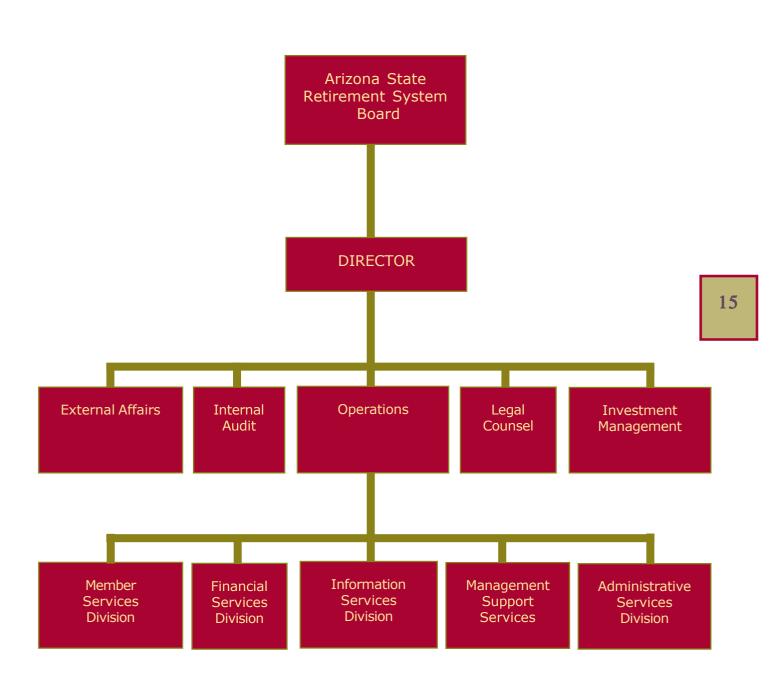
This report reflects the efforts of the many dedicated ASRS employees under the direction of the ASRS Board. It is intended to provide complete and reliable information for decision making, to insure compliance with legal requirements, and is a means of measuring the responsible steward-ship of the assets of the ASRS.

As we celebrate our 50th anniversary year, I would like to express my gratitude to my staff, the ASRS Board and the many other individuals who have been instrumental in maintaining the quality of service and performance which has become the standard for the Arizona State Retirement System.

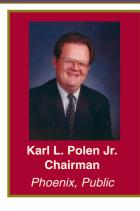
Respectfully submitted,

Paul Matson Director

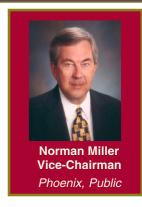
Administrative Organization

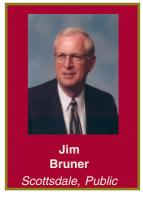


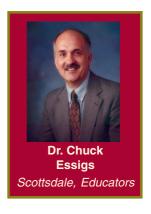
ASRS Board



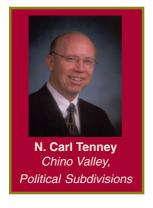


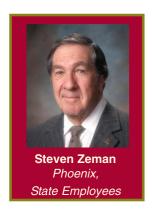


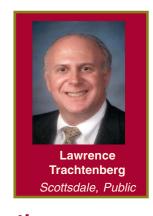




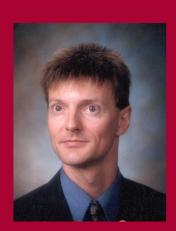








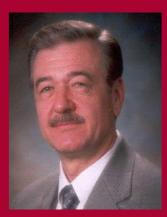
Executive Staff



Paul Matson
Director



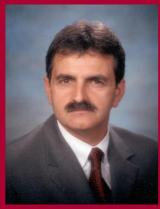
Anthony Guarino
Deputy Director,
Chief Operations Officer



Richard Stephenson

Deputy Director,

External Afairs



Gary R. Dokes
Acting Chief
Investment
Officer

Outside Professional Services

ACTUARY

Buck Consultants Chicago, IL

BENEFITS

VPA Calabasas, CA

CUSTODIAL BANK

*Mellon Trust*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 63.

Introductory Section

Summary of 2003 Retirement Legislation

HB 2023 - Unpaid Contributions.

Now under Arizona Revised Statute Chapter 132.

- Provides a member with 90 days to make payments after being notified that the employer has paid. If the member does not pay within 90 days, the member is responsible for accrued interest from that date.
- Provides an employer with 90 days to make payments after being notified of the amount due. If the employer does not pay within 90 days, the employer is responsible for any accrued interest until the amount is paid in full.
- Requires the person initiating the request to provide verification of past employment.
- States that, beginning July 1, 2004, the employer is only responsible for making payments for service worked within 15 years of the date of the request.
- Allows a member to purchase service that was worked prior to the 15-year limit as "other public service." Provides a member until July 1, 2004 to purchase service worked prior to the 15-year limit under current procedures.
- States that an ASRS determination of eligibility is appealable to the ASRS Board.

HB 2024 – Service Purchase Calculation.

ARS Chapter 164.

- Defines "current annual compensation" used in calculating the cost of purchasing service credit as the greater of:
 - 1. The sum of the 12 months of compensation prior to the request.
 - 2. The sum of the 36 months of compensation prior to the request, divided by three.
 - 3. If the member has retired from an ASRS employer, the average monthly compensation used to calculate the member's last pension, times 12.
 - 4. The annualized compensation of the full pay period prior to the request.
 - 5. The annualized compensation of the partial year prior to the request, if the member has less than 12 months of service.
- Requires the ASRS to recalculate the cost of military service purchased by members (active, retired, or deceased) prior to July 20, 1996, and refund any amounts, plus interest.
- Requires the ASRS to publish a notice of possible refund in 4 quarterly newsletters and 2 annual statements.

HB 2349 – Rural Health Insurance Subsidy.

ARS Chapter 247.

- Extends the rural health insurance subsidy for two years.
- Establishes minimum out-of-pocket premium costs for health coverage in order to be eligible for the rural subsidy.
- Requires that the rural subsidy can only be applied to medical insurance premiums.
- Provides that the family-rate rural subsidy is only available if the retiree has family medical coverage.
- Requires the ASRS to provide a report to the Legislature on accessibility and affordability of health insurance coverage for retirees.
- Appropriates \$183,000 from the ASRS administration account to the ASRS for implementation costs.

Summary of 2003 Retirement Legislation

HB 2455 - Modified DROP.

ARS Chapter 196.

• Provides for technical changes to the Modified DROP program.

SB 1037 - Health Insurance Subsidy for Surviving Spouses. ARS Chapter 171.

- Provides a retiring member who selects a joint and survivor or period certain annuity the ability to select an optional health insurance subsidy that continues to the contingent annuitant after the member's death.
- Appropriates \$537,000 from the ASRS administration account to the ASRS for implementation costs.

SB 1224 – Supplemental Defined Contribution Plan procedures. ARS Chapter 250.

- Makes changes to the supplemental defined contribution plan in order to conform to IRS requirements.
- Requires an employee to make an election to participate in the Plan within two years after the employee first becomes eligible to participate in the Plan.
- States that an election to participate in the Plan is irrevocable and continues for the remainder of employment.
- Allows the employer to annually increase or decrease the employee contributions in increments of one percent up to the maximum allowed by law OR requires the employee to make one-time irrevocable elections of the employee's contribution amount.
- Clarifies the procedures for employer matching contributions.

SB 1225 – Investment Management Requirement.

ARS Chapter 63.

 Amends ARS 38-718 to correct for the change in name of the organization responsible for awarding the chartered financial analyst designation from "Institute of Chartered Financial Analysts" to the "Association for Investment Management and Research."

Comprehensive Annual Financial Report Index - Financial Section

CONTENTS

| | 22 | Independent | Auditors' | Report |
|--|----|-------------|-----------|--------|
|--|----|-------------|-----------|--------|

- 24 Management's Discussion and Analysis
- 29 Basic Financial Statements
 Statement of Plan Net Assets as of June 30, 2003
 Statement of Changes in Plan Net Assets for the Year
 Ended June 30, 2003
- 31 Notes to the Financial Statements
- 42 Required Supplemental Information
 Schedule of Funding Progress
 Schedule of Employer Contributions
 Notes to Required Supplemental Information for the Year Ended June 30, 2003
- 49 Additional Supplemental Schedules

Schedule of Additions and Deductions
Schedule of Administrative Expenses (Retirement Fund)
Schedule of Long-Term Disability Expenses
Schedules of Cash Receipts and Cash Disbursements
Schedule of Professional Consultant Fees
Schedule of Net Investment Income Experience by
Manager
Schedule of Total Investment Expenses by Manager
Schedule of Investment Manager Expenses

Independent Auditors' Report

Deloitte.

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

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

INDEPENDENT AUDITORS' REPORT

Arizona State Retirement System Board 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 June 30, 2003 and for the year then ended, listed in the foregoing table of contents. These financial statements are the responsibility of the management of the ASRS. Our responsibility is to express an opinion on these financial statements based on our audit.

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

In our opinion, such financial statements present fairly, in all material respects, the net assets of the ASRS as of June 30, 2003 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 on pages 24 through 28 is not a required part of the basic financial statements but is supplementary information required by the accounting principles generally accepted in the United States of America. 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 the information and express no opinion on it.

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise ASRS' basic financial statements. The 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 purposes of additional analysis and are not a 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 proce-

23

Independent Auditors' Report

dures applied 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 the auditing procedures applied in our audit of the basic financial statements and, accordingly, we express no opinion on them.

December 4, 2003

Deloute + Touche LLP

Member of **Deloitte Touche Tohmatsu**

Required Supplemental Information Management's Discussion and Analysis

This section presents Management's Discussion and Analysis of the Arizona State Retirement System's (ASRS) financial position and performance for the fiscal year ended June 30, 2003. It is presented as a narrative overview and analysis. The discussion and analysis should be read in conjunction with the Letter of Transmittal included in the Introductory Section of the ASRS Comprehensive Annual Financial Report (CAFR), and the basic financial statements presented in the Financial Section of the CAFR.

Financial Highlights

- The ASRS rate of return on investments for fiscal year end June 30, 2003 was 2.4 percent compared to -8.2 percent for fiscal year end June 30, 2002. The increase in the rate of return is due to an upturn in the U.S. stock market in the last quarter of the fiscal year.
- The ASRS combined total net assets increased by 2.9 percent during fiscal year end June 30, 2003. The increase is primarily due to a market rebound in the last quarter of the fiscal year.
- As of June 30, 2002, the most recent actuarial valuation, the Retirement and Health Supplement Funds combined were 104.6 percent funded. This compares to a combined funding ratio of 112.8 percent as of June 30, 2001. The change in funding rate is primarily due to investment losses, which reduced the actuarial value of assets as of June 30, 2002.
- The ASRS received a total of \$354 million in employee and employer contributions during fiscal year end June 30, 2003 compared to \$336 million in fiscal year end June 30, 2002.
 The 5 percent increase is due to salary increase and a 1.8 percent increase in active membership.
- The ASRS paid \$1.25 billion in retirement, survivor, and disability benefits during fiscal year end June 30, 2003 compared to \$1.11 billion in fiscal year end June 30, 2002. The 13.2 percent increase is due to an increase in retirements and enhanced retirement benefits, such as the optional partial lump sum disbursement.

Overview of the Financial Statements

The Management's Discussion and Analysis is intended to serve as an introduction and overview of the ASRS basic financial statements which comprise the following components: 1) fund financial statements, 2) notes to the 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, 2003. 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:

- The combined statement of plan net assets is presented as of June 30, 2003 with combined total comparative information as of June 30, 2002. 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 \$21.6 billion compared to \$2.2 billion in 2002. The 2.4 percent increase was primarily due to an increase in temporary investments related to security lending. Receivables of \$419 million compared to last year's \$312 million and liabilities of \$3.2 billion compared to \$2.2 billion are due to timing of the trades and settlement.
- The combined statement of changes in plan net assets is presented for the pension trust fund for the year ended June 30, 2003 with comparative information for the year ended June 30, 2002. These financial statements reflect the changes in resources available to pay benefits to retirees and other beneficiaries for the fiscal year 2003, and 2002.

- 1) 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 the 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's 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.
- **2) Required Supplementary Information.** The required supplementary information consists of two schedules and related notes concerning actuarial information, funding progress and required contributions of the defined benefit pension systems administered by the ASRS.
- **3) Other Supplementary Schedules.** Other schedules including detailed information on administrative expenses incurred by the ASRS administered funds, and investment and professional and outside expenses.

Financial Analysis of the ASRS Funds

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

The total ASRS net assets held in trust for benefits at June 30, 2003, were \$18.7 billion, a 3.1 percent decrease from \$19.2 billion at June 30, 2002. The retirement fund was \$17.9 billion compared to \$18.4 billion last year. The 2.7 percent decrease was due to negative cash flow caused by low contribution rate compared to benefit payments. The HBS fund was \$698 million at year end compared to \$768 million in fiscal year 2002. The LTD fund was \$110 million compared to \$94 million. This increase was due to a positive cash flow from contributions and investment income of \$3 million.

For the 2003 fiscal year, employer and member contributions totaled \$354 million, a 5.3 percent increase over the 2002 fiscal year. For fiscal year 2003, the ASRS recognized a net investment income of \$363 million which compares to a net investment loss of \$1.8 billion in the previous year. The investment income was 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 retirement, death, survivor benefits and member transfers out of ASRS. For the 2003 fiscal year, retirement, death, survivor benefits and transfers out totaled \$1.3 billion, an increase of 13.2 percent from fiscal year 2002. Pension payments totaled \$1 billion compared to \$924 million in the previous

year. The 15.5 percent increase is explained by a 10.1 percent increase in retirees, 66,400 compared to 60,346 in 2002, 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 over \$30 million in the first year. For fiscal year 2003, the cost of administering the ASRS benefits totaled \$24 million, an increase of approximately 30.5 percent from fiscal year 2002. The operating budget includes approximately \$10 million in expenses for an Information Technology Project.

An actuarial valuation of the ASRS assets and benefit obligations is performed annually. At June 30, 2002, the date of the most recent actuarial valuation, the total funded status of the ASRS retirement and health benefit supplement funds decreased to 104.6 percent from 112.8 percent in fiscal year 2001. The amount by which ASRS actuarial assets exceeded actuarial benefit liabilities for the retirement and health benefit supplement funds was \$1 million for fiscal year 2002, compared with \$2.6 million for fiscal year 2001. This decrease in funded status related primarily to declining investment earnings and recent benefit enhancements.

The following tables shows the principal ASRS net assets and changes in net assets for fiscal years 2003 and 2002, in thousands of dollars:

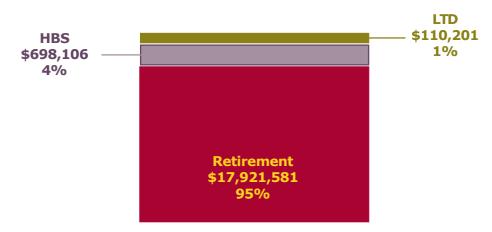
Net Assets - ASRS

| | 2003 | 2002 | \$ Change | % Change |
|---------------------------|--------------|--------------|--------------|-------------|
| Assets | | | | |
| Cash & receivables | \$433,978 | \$325,394 | \$108,584 | 33.37% |
| Investments at fair value | 19,325,696 | 19,381,180 | (55,484) | 0.30% |
| Security lending | 2,248,014 | 1,673,524 | 574,490 | 34.30% |
| Total assets | 22,007,688 | 21,380,098 | 627,590 | 2.94% |
| Liabilities | | | | |
| Investments & payables | 1,029,796 | 496,765 | (533,031) | 107.30% |
| Securities lending | 2,248,004 | 1,673,524 | (574,480) | 34.33% |
| Total liabilities | 3,277,800 | 2,170,288 | (1,107,512) | 51.03% |
| Total Net Assets | \$18,729,888 | \$19,209,809 | \$(479,921) | (2.50)% |

Changes in Net Assets – ASRS

| Additions | 2003 | 2002 | \$ Change | % Change |
|----------------------------|-------------|----------------|---------------|-------------|
| Employee contributions | \$177,157 | \$168,213 | \$8,944 | 5.32% |
| Employer contributions | 177,156 | 168,213 | 8,943 | 5.30% |
| Service credit purchases & | 1//,130 | 100,213 | 0,545 | 3.30 70 |
| transfers in | 93,552 | 50,832 | 42,720 | 84.04% |
| Investment & Security | 93,332 | 30,032 | 42,720 | 04.0470 |
| lending income | 416 210 | (1,706,524) | 2,122,742 | 124.39% |
| | 416,219 | (1,700,324) | 2,122,742 | 124.3970 |
| Investment & Security | (45 505) | (64 554) | (42.067) | 22.60% |
| lending expense | (47,587) | (61,554) | (13,967) | 22.69% |
| Total | 816,497 | (1,380,820) | 2,197,312 | 159.13% |
| Deductions | | | | |
| Benefits | 1,206,703 | 1,054,966 | (151,737) | 14.38% |
| Death benefits | 15,861 | 14,078 | (1,783) | 12.67% |
| Refunds & transfers | 43,433 | 51,382 | 7,949 | -15.47% |
| Administration & other | 30,421 | 19,488 | (10,933) | 56.09% |
| Total | 1,296,418 | 1,139,914 | (156,504) | 13.73% |
| | _,,, | , = = 7, = = . | (30,000) | |
| Net Change | \$(479,921) | \$(2,520,734) | \$(2,040,813) | 80.96% |

Net Assets by Fund – Fiscal Year Ended June 30, 2003



Investments. During the fiscal year ended June 30, 2003, 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 Health Benefit Supplement Fund (HBS) 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 Long Term Disability Fund (LTD) investments are held in a separate fund.

On June 30, 2003, the ASRS held total investments of \$18.6 billion, a decrease of \$506 million from the fiscal year 2002. The combined investment portfolio experienced a return of 2.4 percent compared to the benchmark return of 2.6 percent. The benchmark is comprised of 53 percent S&P 500, 30 percent Lehman Brother Aggregate and 17 percent EAFE indices.

On June 30, 2003, the ASRS held \$10.6 billion in domestic equities and \$2.3 billion in international equities, an increase of 5 percent in domestic equities and no change in international equities from fiscal year 2002. The fiscal year 2003 rate of return for ASRS domestic equities was -.10 percent compared to -16.3 percent in fiscal year 2002. The ASRS domestic equities benchmark, S&P 500, had a return of .3 percent for fiscal year 2003.

The fiscal year 2003 rate of return for ASRS international equities was -6.3 percent compared to -8.5 percent in fiscal year 2002. The ASRS international equities benchmark, EAFE, had a rate of return of -6.1 percent for fiscal year 2003. The benchmarks for both domestic and international equities are representative of the returns that could be expected in a similar investing environment.

On June 30, 2003, the ASRS held \$4.9 billion in domestic fixed income, a decrease of \$1.4 billion from fiscal year 2002. The rate of return was 10.7 percent compared to 8.4 percent in the previous year. The ASRS domestic income benchmark, the Lehman Aggregate, had a rate of return of 10.4 percent for fiscal year 2003. 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 custodian bank, Mellon Trust. The brokers provide collateral and generally use the borrowed securities to cover short sales and failed trades. Security lending income for fiscal year ended June 30, 2003 was \$5.5 million compared to \$7.3 million for the year ended June 30, 2002.

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 as of June 30, 2003 (with Comparative Totals as of June 30, 2002)

(Dollars in Thousands)

| RECEIVABLES: RECEIVABLES: Accrued interest & dividends 61,546 \$2,399 63,945 74,044 Securities sold (Note 3) 324,303 12,643 336,946 188,868 Forward contract receivable 6,562 256 6,818 37,659 Contributions (Note 7) 7,022 210 7,232 9,210 Due from other funds 2,133 3 1,597 Miscellaneous receivables 16,49 153 3 1,805 1,004 Total receivables 401,082 15,451 2,346 418,879 312,382 INVESTMENTS AT FAIR VALUE (Note 3): Temporary investments from securities lending collateral (Note 4) 2,163,654 84,360 2,248,014 1,673,524 U.S. government obligations 1,4041,393 40,589 1,081,982 631,216 Temporary investments from securities lending collateral (Note 4) 2,163,654 84,360 2,248,014 1,673,524 U.S. government obligations 3,195,497 124,577 32,828 3,352,902 3,992,595 Corporate bonds 1,400,115 54,584 1,454,699 1,620,530 Common & preferred stocks 12,830,178 500,187 75,536 13,405,901 13,106,626 Real estate mortgages & contracts 29,079 1,133 30,212 30,213 Total investments 20,659,916 805,430 108,364 21,573,710 21,054,704 TOTAL ASSETS 21,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities purchased (Note 3) 979,094 38,170 1,017,264 455,270 Payable for securities lending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,810 39,697 Due to other funds 3,423 175 3,998 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST FOR BENEFITS \$19,209,809 \$19,209,809 \$10,200,800 \$10,200,800 \$10,200,800 \$10,200,800 \$10,200,800 \$10,200,800 \$10,200,800 \$10,200,800 \$10,200,800 \$10,200,800 \$10,200,800 \$10,200,800 \$10,2 | | Retirement | Health Benefit Supplement (Note 8) | Long-Term Disability (Note 8) | | mbined, 2002 |
|--|--|--------------|---|-------------------------------------|--------------|-----------------|
| RECEIVABLES: Accrued interest & dividends 61,546 \$2,399 63,945 74,044 \$26curities sold (Note 3) 324,303 12,643 336,946 188,868 Forward contract receivable 6,562 256 256 6,818 37,659 200 7,232 9,210 1,233 1,997 1,002 200 210 7,232 9,210 2,133 1,997 1,004 2,143 2,143 3,1,805 1,004 2,163,654 2,346 418,879 312,382 2,133 3,1,805 3,004 | | Hetirement | (Note 0) | , | | |
| Accrued interest & dividends 61,546 \$2,399 63,945 74,044 Securities sold (Note 3) 324,303 12,643 336,946 188,868 Forward contract receivable 6,562 256 6,818 37,659 Contributions (Note 7) 7,022 210 7,232 9,210 Due from other funds 2,133 2,133 1,805 1,004 Total receivables 1,649 153 3 1,805 1,004 Total receivables 401,082 15,451 2,346 418,879 312,382 INVESTMENTS AT FAIR VALUE (Note 3): INVESTMENTS AT FAIR VALUE (Note 3): Temporary investments from securities lending collateral (Note 4) 2,163,654 84,360 2,248,014 1,673,524 U.S. government obligations 3,195,497 124,577 32,828 3,352,902 3,992,595 Corporate bonds 1,400,115 54,584 1,454,699 1,620,530 Common & preferred stocks 12,830,178 500,187 75,536 13,405,901 13,106,626 Real estate mortgages & contracts 29,079 1,133 30,212 30,213 Total investments 20,659,916 805,430 108,364 21,573,710 21,054,704 TOTAL ASSETS 21,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities lending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,6801 39,697 Due to other funds 2,133 2,133 1,598 Characteristics 2,134 2,135 2,133 2,133 1,598 Characteristics 2,134 2,135 2,133 2,133 1,598 Characteristics 2,134 2,135 2,135 2,130 Characteristics 2,134 2,135 2,133 2,133 1,598 Characteristics 2,134 2,135 2,135 2,130 Characteristics 2,134 2,135 2,135 2,130 2,130 2,130 2,130 Characteristics 2,134 2,135 2,135 2,130 | Cash (Note 3) | \$13,300 | | \$1,799 | \$15,099 | \$13,012 |
| Securities sold (Note 3) 324,303 12,643 336,946 188,868 Forward contract receivable 6,562 256 6,818 37,659 Contributions (Note 7) 7,022 210 7,232 9,210 Due from other funds 2,133 2,133 1,597 Miscellaneous receivables 1,649 153 3 1,805 1,004 Total receivables 1,649 153 3 1,805 1,004 Total receivables 1,041,393 40,589 1,081,982 631,216 Temporary investments from securities lending collateral (Note 4) 2,163,654 84,360 2,248,014 1,673,524 U.S. government obligations 3,195,497 124,577 32,828 3,352,902 3,992,595 Corporate bonds 1,400,115 54,584 1,454,699 1,620,530 Common & preferred stocks 12,830,178 500,187 75,536 13,405,901 13,106,626 Real estate mortgages & contracts 29,079 1,133 30,212 30,213 Total investments 20,659,916 805,430 108,364 21,573,710 21,054,704 TOTAL ASSETS 21,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities Payable for securities lending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 2,133 1,598 Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | RECEIVABLES: | | | | | |
| Securities sold (Note 3) 324,303 12,643 336,946 188,868 Forward contract receivable 6,562 256 6,818 37,659 Contributions (Note 7) 7,022 210 7,232 9,210 Due from other funds 2,133 3 1,805 1,004 Miscellaneous receivables 1,649 153 3 1,805 1,004 Total receivables 401,082 15,451 2,346 418,879 312,382 INVESTMENTS AT FAIR VALUE (Note 3): Temporary investments 1,041,393 40,589 1,081,982 631,216 Temporary investments from securities lending collateral (Note 4) 2,163,654 84,360 2,248,014 1,673,524 U.S. government obligations 3,195,497 124,577 32,828 3,352,902 3,992,595 Corporate bonds 1,400,115 54,584 1,454,699 1,620,530 Common & preferred stocks 12,830,178 500,187 75,536 13,405,901 13,106,626 Real estate mortgages & contracts 21,074 | Accrued interest & dividends | 61,546 | \$2.399 | | 63,945 | 74,044 |
| Forward contract receivable 6,562 256 6,818 37,659 Contributions (Note 7) 7,022 210 7,232 9,210 1,597 Miscellaneous receivables 1,649 153 3 1,805 1,004 1,641 1,645 1,5451 2,346 418,879 312,382 1,004 | Securities sold (Note 3) | 324,303 | | | 336,946 | 188,868 |
| Due from other funds 2,133 1,597 Miscellaneous receivables 1,649 153 3 1,805 1,004 1,004 1,649 1,5451 2,346 418,879 312,382 1,805 1,004 1,641,879 312,382 1,805 1,004 1,641,879 312,382 1,805 1,004 1,807,924 | Forward contract receivable | 6,562 | | | 6,818 | 37,659 |
| Miscellaneous receivables 1,649 153 3 1,805 1,004 Total receivables 401,082 15,451 2,346 418,879 312,382 INVESTMENTS AT FAIR VALUE (Note 3): Temporary investments from Securities lending collateral (Note 4) 2,163,654 84,360 2,248,014 1,673,524 U.S. government obligations 3,195,497 124,577 32,828 3,352,902 3,992,595 Corporate bonds 1,400,115 54,584 1,454,699 1,620,530 Common & preferred stocks 12,830,178 500,187 75,536 13,405,901 13,106,626 Real estate mortgages & contracts 29,079 1,133 30,212 30,213 Total investments 20,659,916 805,430 108,364 21,573,710 21,054,704 TOTAL ASSETS 21,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities purchased (Note 3) 979,094 38,170 1,017,264 455,270 | Contributions (Note 7) | 7,022 | | 210 | 7,232 | 9,210 |
| Total receivables | | 2,133 | | | 2,133 | |
| INVESTMENTS AT FAIR VALUE (Note 3): Temporary investments from securities lending collateral (Note 4) 2,163,654 84,360 2,248,014 1,673,524 U.S. government obligations 3,195,497 124,577 32,828 3,352,902 3,992,595 Corporate bonds 1,400,115 54,584 1,454,699 1,620,530 Common & preferred stocks 12,830,178 500,187 75,536 13,405,901 13,106,626 Real estate mortgages & contracts 29,079 1,133 30,212 30,213 Total investments 21,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities purchased (Note 3) 979,094 38,170 1,017,264 455,270 Payable for securities lending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 1,598 Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | Miscellaneous receivables | 1,649 | 153 | 3 | | |
| Temporary investments 1,041,393 40,589 1,081,982 631,216 Temporary investments from securities lending collateral (Note 4) 2,163,654 84,360 2,248,014 1,673,524 U.S. government obligations 3,195,497 124,577 32,828 3,352,902 3,992,595 Corporate bonds 1,400,115 54,584 1,454,699 1,620,530 Common & preferred stocks 12,830,178 500,187 75,536 13,405,901 13,106,626 Real estate mortgages & contracts 29,079 1,133 30,212 30,213 Total investments 20,659,916 805,430 108,364 21,573,710 21,054,704 TOTAL ASSETS 21,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities purchased (Note 3) 979,094 38,170 1,017,264 455,270 Payable for securities lending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 1,598 Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | Total receivables | 401,082 | 15,451 | 2,346 | 418,879 | 312,382 |
| Temporary investments from securities lending collateral (Note 4) 2,163,654 84,360 2,248,014 1,673,524 U.S. government obligations 3,195,497 124,577 32,828 3,352,902 3,992,595 Corporate bonds 1,400,115 54,584 1,454,699 1,620,530 Common & preferred stocks 12,830,178 500,187 75,536 13,405,901 13,106,626 Real estate mortgages & contracts 29,079 1,133 30,212 30,213 Total investments 20,659,916 805,430 108,364 21,573,710 21,054,704 TOTAL ASSETS 21,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities purchased (Note 3) 979,094 38,170 1,017,264 455,270 Payable for securities lending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 1,598 Other 3,423 1,75 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | INVESTMENTS AT FAIR VALUE (Note 3): | | | | | |
| U.S. government obligations 3,195,497 124,577 32,828 3,352,902 3,992,595 Corporate bonds 1,400,115 54,584 1,454,699 1,620,530 Common & preferred stocks 12,830,178 500,187 75,536 13,405,901 13,106,626 Real estate mortgages & contracts 29,079 1,133 30,212 30,213 Total investments 20,659,916 805,430 108,364 21,573,710 21,054,704 TOTAL ASSETS Payable for securities 91,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities 91,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities purchased (Note 3) 979,094 38,170 1,017,264 455,270 Payable for securities 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 2,133 2,133 2,133 2,133 </td <td>Temporary investments Temporary investments from</td> <td>1,041,393</td> <td>40,589</td> <td></td> <td>1,081,982</td> <td>631,216</td> | Temporary investments Temporary investments from | 1,041,393 | 40,589 | | 1,081,982 | 631,216 |
| Corporate bonds 1,400,115 54,584 1,454,699 1,620,530 Common & preferred stocks 12,830,178 500,187 75,536 13,405,901 13,106,626 Real estate mortgages & contracts 29,079 1,133 30,212 30,213 Total investments 20,659,916 805,430 108,364 21,573,710 21,054,704 TOTAL ASSETS 21,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities purchased (Note 3) 979,094 38,170 1,017,264 455,270 Payable for securities lending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 2,133 1,598 Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 | securities lending collateral (Note 4) | 2,163,654 | 84,360 | | 2,248,014 | 1,673,524 |
| Common & preferred stocks 12,830,178 500,187 75,536 13,405,901 13,106,626 Real estate mortgages & contracts 29,079 1,133 30,212 30,213 Total investments 20,659,916 805,430 108,364 21,573,710 21,054,704 TOTAL ASSETS 21,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities purchased (Note 3) 979,094 38,170 1,017,264 455,270 Payable for securities lending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 2,133 1,598 Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 | | 3,195,497 | 124,577 | 32,828 | , , | , , |
| Real estate mortgages & contracts 29,079 1,133 30,212 30,213 Total investments 20,659,916 805,430 108,364 21,573,710 21,054,704 TOTAL ASSETS 21,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities purchased (Note 3) 979,094 38,170 1,017,264 455,270 Payable for securities 1ending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 2,133 1,598 Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | | 1,400,115 | 54,584 | | 1,454,699 | |
| Total investments 20,659,916 805,430 108,364 21,573,710 21,054,704 TOTAL ASSETS 21,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities purchased (Note 3) 979,094 38,170 1,017,264 455,270 Payable for securities lending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable Due to other funds Other 6,546 255 6,801 39,697 Due to other funds Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | | 12,830,178 | 500,187 | 75,536 | | |
| TOTAL ASSETS 21,074,298 820,881 112,509 22,007,688 21,380,098 LIABILITIES: Payable for securities purchased (Note 3) 979,094 38,170 1,017,264 455,270 Payable for securities lending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 1,598 Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 | | 29,079 | 1,133 | | | |
| LIABILITIES: Payable for securities purchased (Note 3) 979,094 38,170 1,017,264 455,270 Payable for securities 1ending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 1,598 Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | Total investments | 20,659,916 | 805,430 | 108,364 | 21,573,710 | 21,054,704 |
| Payable for securities 979,094 38,170 1,017,264 455,270 Payable for securities 1ending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 1,598 Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | TOTAL ASSETS | 21,074,298 | 820,881 | 112,509 | 22,007,688 | 21,380,098 |
| Payable for securities lending collateral (Note 4) 2,163,654 84,350 2,248,004 1,673,524 Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 1,598 Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | | | | | | |
| Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 1,598 Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | , , , | 979,094 | 38,170 | | 1,017,264 | 455,270 |
| Forward contracts payable 6,546 255 6,801 39,697 Due to other funds 2,133 2,133 1,598 Other 3,423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | lending collateral (Note 4) | 2,163,654 | 84.350 | | 2,248,004 | 1,673,524 |
| Other 3.423 175 3,598 200 Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | Forward contracts payable | 6,546 | | | 6,801 | 39,697 |
| Total liabilities 3,152,717 122,775 2,308 3,277,800 2,170,289 NET ASSETS HELD IN TRUST | Due to other funds | | | 2,133 | 2,133 | 1,598 |
| NET ASSETS HELD IN TRUST | Other | 3,423 | | 175 | 3,598 | 200 |
| | Total liabilities | 3,152,717 | 122,775 | 2,308 | 3,277,800 | 2,170,289 |
| FOR BENEFITS \$17,921,581 \$698,106 \$110,201 \$18,729,888 \$19,209,809 | NET ASSETS HELD IN TRUST | | | | | |
| | FOR BENEFITS | \$17,921,581 | \$698,106 | \$110,201 | \$18,729,888 | \$19,209,809 |

A Schedule of Funding Progress is presented on page 42.

The accompanying notes are an integral part of these statements.

Combined Statement of Changes in Plan Net Assets for the Year Ended June 30, 2003 (with Comparative Totals for the Year Ended June 30, 2002) (Dollars in Thousands)

| | | Health Benefit | Long-Term | Co | mbined |
|---|------------------|-------------------|--------------|------------|----------------------|
| ADDITIONS: | Retirement | Supplement | Disability | 2003 | 2002 |
| Contributions | | Supplement | | | |
| Member contributions (Note 7) | <i>\$142,356</i> | 4 | \$34,801 | \$177,157 | \$168,213 |
| Employer contributions (Note 7) | 138,100 | <i>\$4,256</i> | 34,800 | 177,156 | 168,213 |
| Transfer from other retirement plans | 1,984 | | | 1,984 | 1,467 |
| Member purchase of service credit | 91,568 | | | 91,568 | 49,365 |
| Total contributions | 374,008 | 4,256 | 69,601 | 447,865 | 387,258 |
| Income from investment activities | | | | | |
| Net appreciation (deprecciation) | | | | | |
| in fair value | | | | | |
| Interest | (53,264) | (1,568) | 3,395 | (51,437) | (2,228,395) |
| Dividends | 261,901 | 7,708 | 55 | 269,664 | 311,212 |
| Real estate | 152,431 | 4,487 | 11 | 156,929 | 149,442 |
| Other | 7,552 | 222 | | 7,774 | 5,885 |
| Total income from investment activities | 2,764 | 76 | | 2,840 | 11,690 |
| rotal moome from invocations acaviace | 371,384 | 10,925 | 3,461 | 385,770 | (1,750,166) |
| Less investment activity expenses | 07 1,004 | , | 0,401 | 000,770 | (1,750,100) |
| | | | | | |
| Investment mgmt fees & monitor svcs | 16,784 | 494 | | 17,278 | 10.005 |
| Real estate | , | 158 | | , | 18,005 |
| Total investment activity expenses | 5,365 | 652 | | 5,523 | 7,213 |
| | 22,149 | 032 | | 22,801 | 25,218 |
| Net income from investment activities | 0.40.005 | 10.070 | | | |
| | 349,235 | 10,273 | 3,461 | 362,969 | (1,775,384) |
| From security lending activities | | | | | |
| Securities lending income (Note 4) | | | | | |
| Less security lending expenses (Note 4) | 29,578 | 871 | | 30,449 | 43,642 |
| | 24,078 | 708 | | 24,786 | 36,336 |
| Net Income from securities lending activities | 5,500 | 163 | | 5,663 | |
| Total net investment income | 354,735 | 10,436 | 3,461 | 368,632 | 7,306 (1,768,078) |
| TOTAL ADDITIONS | 728,743 | 14,692 | 73,062 | 816,497 | (1,380,820) |
| TOTAL ADDITIONS | | - 1,00= | 70,002 | | (1,300,020) |
| DEDUCTIONS: | | | | | |
| Retirement & disability benefits | 1,067,481 | 84,534 | 54,688 | 1,206,703 | 1,054,966 |
| Death benefits | 15,861 | | | 15,861 | 14,078 |
| Refund of contributions, including interest | 35,976 | | | 35,976 | 42,765 |
| Administrative expenses | 21,148 | <i>857</i> | 2,177 | 24,182 | 18,532 |
| Transfers to other retirement plans | 7,457 | | , | 7,457 | 8,617 |
| Other | 6,197 | 42 | | 6,239 | 956 |
| TOTAL DEDUCTIONS | 1,154,120 | 85,433 | 56,865 | 1,296,418 | 1,139,914 |
| Net (decrease) increase | (425,377) | (70,741) | 16,197 | (479,921) | (2,520,734) |
| Net assets held in trust for benefits: | | | | | |
| Beginning of year | 18,346,958 | 768,847 | 94,004 | 19,209,809 | 21,730,543 |
| End of year | \$17,921,581 | \$698,106 | \$110,201 \$ | | \$19,209,809 |
| End of year | Ψ17,021,001 | +000,100 | ψιιο,ΖΟΙ Ψ | 10,720,000 | ψ13,203,009 |

The accompanying notes are an integral part of these statements.

Notes to the Financial Statements

1. DESCRIPTION OF THE SYSTEM

Organization – The Arizona State Retirement System (ASRS) is a component unit of the State of Arizona. The ASRS is a cost-sharing, multiple-employer, 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 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 Board (the "Board"), 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. The laws of 1998, Chapter 238, are applicable for the plan year beginning July 1, 1998. Contributions are excluded from gross income for federal and state income tax purposes. Contributions are collected by employers and remitted to the Plan. Contributions earn interest at the rate of 8 percent per annum.

State statutes allow the purchase of eligible service credit for which no benefit could be paid by another qualified plan. Purchasable services include active duty military service, other qualified plan service and refunded service.

At June 30, 2003 and 2002, the number of participating employers and employees totaled:

| EMPLOYER UNITS: | <u>2003</u> | <u>2002</u> |
|------------------------------------|-------------|-------------|
| School Districts | 232 | 226 |
| Charter Schools | 150 | 138 |
| Cities & Towns | 68 | 65 |
| Counties | 14 | 14 |
| Special Districts | 62 | 59 |
| Community College Districts | 10 | 10 |
| Universities | 3 | 3 |
| State Government | 1 | 1 |
| TOTAL | 540 | 516 |
| EMPLOYEE MEMBERS: | | |
| Retirees (including beneficiaries) | 66,440 | 60,346 |
| Non-Active Fully Vested | 123,588 | 109,942 |
| Long-Term Disability Recipients | 4,561 | 4,485 |
| CURRENT EMPLOYEES: | | |
| Active Fully Vested* | 202,499 | 198,870 |
| TOTAL | 397,088 | 373,643 |

^{*} Plan members are deemed fully vested when retirement contributions are made. The fully vested members are currently contributing.

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 benefit in the event they become unable to perform their work. The monthly benefit is equal to 66 and 2/3 percent of the monthly rate of compensation. A participant continues to earn service credit not to exceed 30 years during the period of disability.

The Retiree Group Insurance Program offers health insurance coverage for retired and disabled members who are no longer eligible for coverage administered by their former member employers. Commencing January 1, 1989, retired and disabled members of the ASRS and Plan became eligible for a health insurance premium subsidy benefit. A detailed explanation of both programs is presented in the additional benefits section (Note 8).

Termination – Upon termination of employment, member contributions made to the Plan, plus accrued interest at 8 percent compounded monthly per annum, are refundable. Effective August 6, 1999 members may be eligible to receive a percentage of employer contributions to the plan based on years of service prorated as follows:

- 5 to 5.9 years of service receives 25 percent of employer contributions
- 6 to 6.9 years of service receives 40 percent of employer contributions
- 7 to 7.9 years of service receives 55 percent of employer contributions
- 8 to 8.9 years of service receives 70 percent of employer contributions
- 9 to 9.9 years of service receives 85 percent of employer contributions
- 10 or more years of service receives 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 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 two new statements, numbers 40 and 41. Statement No. 40, Deposit and Investment Risk Disclosures (GASB 40) amends GASB statement No. 3, "Deposits and Financial Institutions, Investments (including Repurchase Agreements), and Reverse Repurchase Agreements" and address additional risks to which governments are exposed. GASB 41, "Budgetary Comparison Schedules - Perspective Differences" amends GASB 34. A perspective difference occurs when the structure of financial information used in a government's legally adopted budget differs from the fund structure required by GAAP. The provisions of Statement 40 and 41 are effective for the financial statements for periods beginning after June 15, 2004. The ASRS does not believe these statements will have a significant impact on the Plan.

Investments – Investments include U.S. government and government agency obligations, real estate, commercial mortgages, corporate bonds and equity obligations. Investments are reported at fair value.

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

Investments other than real estate and 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 their investment advisors, has determined the fair values for the individual investments based on anticipated maturity dates and current interest rates commensurate with the investment's degree of risk.

Net investment income includes net 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 the ASRS to economic changes occurring in certain industries, sectors, or geographies. HBS and retirement investments are pooled. Allocation of unrealized and realized gains is based on the fund's net asset balance at year-end.

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 expenditures in the year purchased due to the insignificant total cost.

Federal Income Tax Status – During the year ended June 30, 2003, 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, 2002, 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 Uncertanties – 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 does not include sufficient detail to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the ASRS' financial statements for the year ended June 30, 2002, from which the summarized information was derived.

3. CASH AND INVESTMENTS

Cash – At June 30, 2003, the carrying amount of the ASRS' cash deposits with financial institutions was \$15,099,387 and the bank balance was \$6,818,906. Of the bank balances as of June 30, 2003, \$100,000 was covered with federal depository insurance funds and the remaining funds were collateralized with securities held by the pledging bank's trust department in the ASRS' name.

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.
- 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 2003, the ASRS had no investments in economic development projects.

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, 2003, categorized to give an indication of the level of risk assumed by the ASRS.

The categories are:

1. Insured or registered investments, or securities held by the 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, as of June 30, 2003 was as follows:

| | Cate | gory | Fair Value |
|---|--------------------------------------|---------------------|--|
| | 1 | 2 | raii vaiue |
| Investments - Categorized Preferred & Common Stock - Domestic Preferred & Common Stock - Foreign | \$10,491,768 | \$2,327,623 | \$10,491,768 2,327,623 |
| U.S. Government Obligations Corporate Obligations - Domestic Foreign Currency | 1,864,004 1,282,102 13,637,875 | 20,768 2,348,391 | 1,864,004 1,282,102 20,768 15,986,266 |
| Investments - Not Categorized Short-Term Investments* Real Estate Investments held by Broker/Dealers under Security Loan Program: | | | 3,309,228 30,212 |
| U.S. Government Obligations Corporate Obligations - Domestic Preferred & Common Stock - Domestic Preferred & Common Stock - Foreign | | 248,391 | 1,488,898 172,597 338,118 248,391 |
| TOTAL INVESTMENTS AT FAIR VALUE | _13,637,875_ | 2,596,782 | 21,573,710 |
| Obligations Under Security Loans INVESTMENTS AT FAIR VALUE - NET | \$13,637,875 | \$2,596,782 | (2,248,004) \$19,325,706 |

* Short-term Investments represent investable cash balances swept daily into the custodian 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, 2003. 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 \$2,596,782 at June 30, 2003, in common and preferred stocks and foreign currency. Compared to \$2,892,250 last year, net foreign securities and currency market depreciation are included in determining the net decrease for the year ended June 30, 2003 of \$295,486.

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 \$337 million and a payable for securities purchased of \$1 billion at June 30, 2003.

4. SECURITIES LENDING PROGRAM

Arizona Revised Statutes Section 38-715(D)(3) allow the ASRS to participate in a securities lending program. The ASRS' custody 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. During fiscal year 1998, statutes were amended to allow for other than cash collateral. 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) yankee 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 ASRS receives a spread for its lending activities. Investments made with cash collateral are classified as an asset on the Basic Statements 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, 2003 and 2002, the ASRS had \$2.25 billion and \$1.67 billion respectively, 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. |

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 – 1983 group annuity mortality table with setback of one year for males, (g) mortality rates after disability, (h) valuation of assets using fair value less five-year phase-in 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 the actuarial assumptions and methods.

7. CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE

The A.R.S. provide statutory authority for determining the employees' and employers' contribution amounts as a percentage of covered payrolls. Employers are required to contribute at the same rate as employees. Although the statutes prescribe the basis of making the actuarial calculation, the Arizona State Legislature is able to legislate a contribution rate other than the actuarially determined rate. The actuarial computation is made two years in advance based on the June 30 information (the rate for 2003 was based on June 30, 2001 information). The actuarial assumptions used in this measure are those adopted by the ASRS' Board on November 20, 1996. The contribution rates were actuarially determined using the Projected Unit Credit ("PUC") funding method, the use of which was established by legislative action in 1989. The employee and employer contribution rate is determined as one-half of the percent of pay needed to pay the normal cost of the Plan and a factor to amortize the under-funded past service liability based on the criteria of the A.R.S., not to exceed an amortization period of 30 years. This change is being phased-in over the next 14 years. Since the Plan is overfunded, the percent of pay needed to amortize the Unfunded Actuarial Accrued Liability ("UAAL") is negative.

The contribution rates, as actuarially determined, for the years ended June 30, 2002 and 2001 were as follows (the most recent actuarial information available was as of June 30, 2002). However, the contribution rate is determined biennially.

| | 2002 Valuation (For the contribution period ending June 30, 2003) | | 2001 Valuation (For the contribution period ending June 30, 2002) | |
|--|---|----------------------------------|---|----------------------------------|
| | Amount | Percent of Covered Payroll | Amount | Percent of Covered Payroll |
| Normal Cost | \$831,499,553 | 11.75% | \$747,218,041 | 11.75% |
| Amortization of over-funded past service liability | <u>(104,840,085)</u> | <u>(1.35%)</u> | <u>(256,174,962)</u> | (4.03%) |
| Total* | \$726,659,468 | 10.40% | \$491,043,079 | 7.72% |
| Contributions made as a percentage of the current year covered payroll: Employer's share Employee's Share | \$168,212,536 168,212,537 | 2.49% 2.49% | \$163,441,640 163,441,721 | 2.49% 2.49% |
| Total | \$336,425,073 | 4.98% | \$326,883,361 | 4.98% |

^{*}Information is based on the actual actuarial numbers of 2002.

The statutory contribution rate for the year ended June 30, 2003 is 2.49 percent (2.00 percent retirement and .49 percent long-term disability) for both the employers' and employees' portion. This was determined by the 2001 actuarial valuation. The actuarially determined contribution rate for the year ended June 30, 2003 was 2.49 percent (2.00 percent retirement and .49 percent long-term disability) for both the employers' and employees' portion. 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 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 benefit through the LTD program administered by the ASRS or through their former member employer's group LTD plan.

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 Officers Retirement Plan may participate if they are no longer eligible for health insurance benefits through their former employer. More than 38,000 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 Benefit (subsidy) Program. This assistance is provided to those members that elect group coverage through either the Retiree Group Insurance Program or their former member employer. The following chart illustrates the maximum amount of the monthly available benefit for eligible members and their dependents:

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

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 2001 Arizona Legislature passed, and the Governor signed, legislation to provide an additional temporary premium benefit effective July 1, 2001 through June 30, 2003. These additional increases are listed in the table on the next page.

| | | | <u>thout</u> licare | | <u>ledicare</u> <u>& B</u> | Combina | ations . |
|---------------------------------|----------------------------------|-----------------|------------------------|-----------------|-----------------------------------|--|---|
| Years of Credited Service | Percent of Premium Benefit | Retiree Only | Retiree & Dependents | Retiree Only | Retiree & Dependents | Retiree & Dependent One with Medicare, the other | Retiree & Depen- dent with Medicare, other dependent without |
| 5.0 - 5.9 | 50% | \$150 | \$300 | \$85 | <i>\$175</i> | without \$235 | \$235 |
| 6.0 - 6.9 | 60% | \$180 | \$360 | \$102 | \$210 | \$282 | \$282 |
| 7.0 - 7.9 | 70% | \$210 | \$420 | \$119 | \$245 | \$329 | \$329 |
| 8.0 - 8.9 | 80% | \$240 | \$480 | <i>\$136</i> | \$280 | \$376 | \$376 |
| 9.0 - 9.9 | 90% | \$270 | \$540 | \$153 | \$315 | \$423 | \$423 |
| 10.0+ | 100% | \$300 | \$600 | \$170 | \$350 | \$470 | \$470 |

The ASRS reimbursed approximately \$84.5 million and \$76.0 million towards the cost of group health insurance coverage for the years ended June 30, 2003 and 2002, 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 full-time retirement system employees are covered by the 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 Plan is administered in accordance with Title 28, Chapter 5 of the Arizona Revised Statutes (ARS).

The ASRS Retirement Plan provides retirement and disability benefits, annual cost of living adjustments and death benefits to members and their beneficiaries. ARS 38-783 and ARS 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, 2002 and 2003 is 2.49 percent (2.00 percent retirement and .49 percent LTD). All full-time retirement system employees are required to contribute 2.49 percent of their annual covered salary, and the ASRS, as the employer, is required to match these contributions.

The ASRS annual regular base salary was \$7,716,345 and the employer contributions to the Retirement Plan totaled \$192,137 for the 2002-2003 fiscal year. Contributions are collected by the ASRS and remitted 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.

Full-time 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.

REQUIRED SUPPLEMENTAL INFORMATION FOR YEAR ENDED JUNE 30, 2003

<u>Schedule of Funding Progress - Retirement Fund</u>

| Actuarial Valuation Date June 30 | Actuarial Value of Assets a | Actuarial Accrued Liability (AAL) Projected Unit-Credit b | Unfunded AAL (UAAL) (b - a) | Funded Ratio (a/b) | Covered Payroll c | UAAL as a Percentage of Covered Payroll [(b/a)/c] |
|---|--------------------------------------|--|--------------------------------------|--------------------------|-------------------------|---|
| 1997 | \$13,692 | \$11,694 | \$(1,998) | 117.1% | \$4,836 | (41.3)% |
| 1998 | \$15,557 | \$12,910 | \$(2,667) | 120.7% | \$5,164 | (51.6)% |
| 1999 | \$18,043 | \$15,476 | \$(3,437) | 116.6% | \$5,488 | (46.8)% |
| 2000 | \$20,291 | \$16,854 | \$(2,876) | 120.4% | \$5,894 | (58.3)% |
| 2001 | \$21,888 | \$19,012 | \$(1,357) | 115.2% | \$6,357 | (45.2)% |
| 2002 | \$22,642 | \$21,285 | | 106.4% | \$6,989 | (19.2)% |

Note: Dollar amounts in millions. The June 30, 2002 accrued actuarial assets for the Health Benefit Supplement of \$891 million, has been excluded from this presentation.

Schedule of Employer Contributions

| Year Ended June 30 | Employer Contributions Required* | Percentage Contributed |
|--------------------------|--|---------------------------|
| 1996 | \$172,848,417 | 100 percent |
| 1997 | \$173,508,019 | 100 percent |
| 1998 | \$176,768,738 | 100 percent |
| 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 |

^{*}Includes contributions for long-term disability.

Information is shown only for the years available in accordance with the parameters of GASB No. 25. Additional years will be added as data becomes available. See notes to required supplemental information.

Notes to Required Supplemental Information

1. ACTUARIAL METHODS AND ASSUMPTIONS FOR VALUATIONS PERFORMED

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

The Projected Unit Credit ("PUC") is the actuarial cost method used in the valuation for the period ended June 30, 2002. The amortization method used for the June 30, 2002 valuation was the Level Dollar method, 15 years grading to 30. This is a closed amortization period. A five-year smoothed market value method is used to determine the actuarial value of assets. The investment return rate used is 8 percent per year, compounded annually. The inflation rate assumption used is 4.25 percent per year. Projected salary increase assumptions are based on 4.50 percent to 9.50 percent per year. The cost-of-living adjustment reserve is \$1,692 million as of June 30, 2002.

Significant Factors Affecting Identification of Trends - 1989

PUC Funding Method

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

\$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 credit service using a minimum average compensation of \$1,000 per month.

3.0 percent 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 percent in his or her January, 1989, base benefit.

Significant Factors Affecting Identification of Trends - 1990

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 percent for each point or fraction thereof less than 82.

3.0 percent 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 percent in his or her base benefit, retroactive to the date of retirement.

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 percent of the benefit for each completed year of service (i.e., 50 percent to 90 percent).

Significant Factors Affecting Identification of Trends - 1991

3.0 percent 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 percent in his or her base benefit, retroactive to the date of retirement.

Recalculation of Retiree Benefits Using 2.0 percent 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 percent 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.

2.3 percent Ad Hoc Increase

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

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).

Pop-up Option

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

Significant Factors Affecting Identification of Trends – 1992

3.0 percent 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 percent in his or her base benefit, retroactive to the date of retirement.

Minimum Retiree Benefit

Each retiree of the Plan who is at least age 75 on December 31, 1992, and who had at least 10 years of service upon retirement from the Plan shall be eligible for a minimum benefit. If the eligible retiree had at least 10 years of service but less than 15 years, his minimum benefit is \$350 a month. If the eligible retiree had at least 15 years of service but less than 20, the retiree's minimum benefit is \$500. If the eligible retiree had at least 20 years of service the retiree's minimum benefit is \$600. The minimum benefit shall be compared to the retiree's current benefit (including all ad hoc increases).

5 percent Ad Hoc Increase

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

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.

Repurchase of Service Due to Reduction in Force

Any currently 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.

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 the valuation and June 30, 2002, as long as the plan has a negative Unfunded Actuarial Accrued Liability ("UAAL"). If the Plan were to have a positive UAAL, then the old funding mechanism would apply.

Significant Factors Affecting Identification of Trends – 1993

No benefit changes were passed by the 1993, Arizona State Legislature. However, the legislature passed legislation to reduce the required contribution rate of 4.09 percent to 3.14 percent.

Significant Factors Affecting Identification of Trends – 1994

Minimum Long-term Disability (LTD) Benefit

Each member on LTD will receive a minimum monthly benefit of \$50.

Minimum Retiree Benefit

Each retiree of the 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.

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.

Excess Investment Earnings (COLA)

Retirees at least age 55 who have been retired at least one year and members on LTD are eligible to receive a cost-of-living adjustment (COLA) 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.

Change in Section 38-737 Funding Period

Section 38-737 was amended to change the funding period of the plan to a rolling 30-year period. The change is to be phased-in over the next 19 years. If the Plan should cease to be overfunded, the funding period would immediately go to 30 years.

Significant Factors Affecting Identification of Trends – 1995

Change in Maximum Increase Provided by Excess Investment Earnings COLA The maximum COLA payable from Excess Investment Earnings was increased from 50 percent to 100 percent of the increase in the CPI.

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 were transferred to the new LTD program effective October 1, 1995.

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.

Significant Factors Affecting Identification of Trends – 1996

No material changes.

Significant Factors Affecting Identification of Trends - 1997

Creation of Family Health Supplement

Allows unused portion of the Health Supplement of a member or dependent to be used to pay the other recipients' health insurance premium.

The calculation methodology for the Excess Investment Earnings COLA was modified.

The contribution rate will be determined on a biennial cycle beginning with the 1999/2000 fiscal year.

Significant Factors Affecting Identification of Trends - 1998

No material changes.

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 5 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.

Significant Factors Affecting Identification of Trends - 2000

The age restriction on eligibility for the Permanent Benefit Increase (PBI) was removed.

Significant Factors Affecting Identification of Trends – 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 defined contribution (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.

Significant Factors Affecting Identification of Trends - 2002

No material changes.

Significant Factors Affecting Identification of Trends - 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 ten-year period. So the 2002 valuation recognizes only 10 percent of the 2002 investment loss. The years prior to 2002 remain on their original five-year schedules.

Extension of the Rural Health Insurance Subsidy

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

Schedule of Additions & Deductions Ten-Year Comparison

Additions by Source

| | Employee Contribution | Actuarial Employee | Employer Contribution | Actuarial **** Employer | Percent of Covered | Actuarially Determined | Net Investment | Member Reim- bursements | |
|---------|--------------------------|-----------------------|--------------------------|-------------------------|-----------------------|------------------------|-------------------|----------------------------|-----------------|
| Year | Made | Contribution | Made | Contribution | Payroll | Rate | Income | and Other ***** | Total |
| 1994* | 124,763,806 | 162,510,817 | 124,763,806 | 162,510,817 | 3.14% | 4.09% | 725,271,172 | 7,319,048 | 982,117,832 |
| 1995* | 158,559,931 | 158,559,931 | 158,559,931 | 158,559,931 | 3.75% | 3.75% | 2,409,804,569 | 9,429,152 | 2,736,353,583 |
| 1996*** | 172,848,417 | 172,848,417 | 172,848,417 | 172,848,417 | 3.85% | 3.85%** | 2,063,877,940 | 4,376,224 | 2,413,950,998 |
| 1997 | 173,508,080 | 173,508,080 | 173,508,019 | 173,508,080 | 3.69% | 3.69% | 2,832,718,071 | 11,480,946 | 3,191,215,116 |
| 1998 | 176,768,737 | 176,768,737 | 176,768,738 | 176,768,738 | 3.54% | 3.54% | 3,405,203,114 | 15,461,646 | 3,774,202,235 |
| 1999 | 179,086,642 | 179,086,635 | 179,086,635 | 179,086,635 | 3.34% | 3.34% | 2,848,321,337 | 46,170,568 | 3,252,665,182 |
| 2000 | 152,957,449 | 152,957,449 | 152,957,838 | 152,957,838 | 2.17% | 2.17% | 2,035,312,005 | 35,347,830 | 2,376,575,122 |
| 2001 | 163,441,640 | 163,441,640 | 163,441,640 | 163,441,640 | 2.17% | 2.17% | (1,528,690,829) | 37,687,091 | (1,164,120,458) |
| 2002 | 168,212,537 | 168,212,537 | 168,212,537 | 168,212,536 | 2.00% | 2.00% | (1,768,077,075) | 49,365,487 | (1,382,286,514) |
| 2003 | 177,156,746 | 177,156,746 | 177,156,746 | 177,156,746 | 2.00% | 2.00% | 368,632,000 | 91,567,731 | 814,513,223 |

Deductions by Type

| | | | | Administration | |
|------|---------------|------------|-------------|----------------|---------------|
| Year | Benefits | Refunds | Investment | and Other**** | Total |
| | | | | | |
| 1994 | 454,118,381 | 22,650,297 | 28,934,542 | 5,521,389 | 511,224,609 |
| 1995 | 495,150,932 | 24,516,184 | 32,403,873 | 5,970,049 | 558,041,038 |
| 1996 | 542,524,729 | 26,376,393 | 37,535,223 | 8,244,791 | 614,681,136 |
| 1997 | 596,308,127 | 31,282,457 | 45,248,028 | 12,307,628 | 685,146,240 |
| 1998 | 652,567,322 | 29,769,046 | 51,199,408 | 12,541,091 | 746,076,867 |
| 1999 | 713,870,779 | 26,108,152 | 65,886,652 | 15,352,673 | 821,218,256 |
| 2000 | 787,553,386 | 70,754,497 | 86,931,784 | 19,743,695 | 964,983,362 |
| 2001 | 909,615,149 | 98,535,274 | 107,848,128 | 24,639,599 | 1,140,638,150 |
| 2002 | 1,069,043,683 | 42,765,105 | 61,553,189 | 28,105,396 | 1,201,467,373 |
| 2003 | 1,222,564,340 | 35,975,884 | 47,586,745 | 37,877,352 | 1,344,004,321 |
| | | | | | |

- * Other income includes Chapter 137 reimbursements and transfers of \$7,505,005, \$5,739,521 for 1995, and 1994 respectively, which are outlined by State Statute for members buying back service into the ASRS. For the fiscal year ended 1994, the legislature set the contribution rate below the actuarially determined rate as noted under "Percent of Covered Payroll" above. The change to an actuarially determined rate became effective in 1985.
- ** The initial actuarial calculation indicated a total contribution rate of 7.90 percent in 1996. However, this was prior to separating LTD from retirement contributions. The effect of reporting LTD separately resulted in a new total contribution rate of 7.70 percent, 3.36 percent retirement and 0.49 percent LTD, for both employee and employer.
- *** Investment income restated at fair value for 1996. Investment income reported at fair value for subsequent years.
- **** Information is shown only for the years available in accordance with the parameters of GASB No. 25. Additional years will be added as data becomes available.
- ***** Inter-fund transfers are not included in the table.

Schedule of Administrative Expenses (Retirement & HBS Fund) Years Ended June 30, 2003 & June 30, 2002

(in thousands)

| | 2003 | | 2002 | | |
|---|--------------|-------------------|------------|------------|--|
| Dawaannal Camilaaa | Budget | Actual | Budget | Actual | |
| Personnel Services: Salaries | \$8,341 | \$7,360 | \$6,521 | \$6,458 | |
| Retirement Contributions | 167 | 144 | 130 | 127 | |
| Employer Expenses | 1,753 | 1,283 | 1,248 | 1,081 | |
| Total Personnel Services | 10,261 | 8,788 | 7,900 | 7,666 | |
| Professional Services: | | | | | |
| Computer Support | Not Budgeted | 2,443 | | 12 | |
| Audit, Consulting & Legal Fees Actuary & Benefit Consulting | 478 1,000 | 308 398 | 223 100 | 304 197 | |
| Outside Services | 2,624 | 1,497 | 3,092 | 2,788 | |
| Total Professional Services | 4,102 | 4,646 | 3,414 | 3,301 | |
| Communications: | | | | | |
| Postage | 690 | 417 | 350 | 333 | |
| Printing | 178 | 131 | 261 | 140 | |
| Telephone | 325 | 233 <i>781</i> | 350 | 340 | |
| Total Communications | 1,193 | /81 | 961 | 813 | |
| Miscellaneous: | • | | 2.0 | _ | |
| Board & Council Office Rent | 9 1,636 | 6 1,500 | 20 904 | 5 1,544 | |
| Equipment | 1,400 | 192 | 412 | 268 | |
| Furniture | 105 | 49 | 137 | 107 | |
| Repair & Maintenance | 325 | 96 | 220 | 268 | |
| Equipment Rental Travel | 1 85 | 1 71 | 15 50 | 6 57 | |
| Supplies | 220 | 181 | 220 | 188 | |
| Insurance | 88 | 88 | 87 | 87 | |
| Dues & Subscriptions | 35 | 69 | 35 | 31 | |
| Education & Training Miscellaneous | 62 50 | 110 26 | 60 8 | 62 1 | |
| PERIS Development | 5,397 | 5,401 | 1,437 | 1,397 | |
| Total Miscellaneous | 9,412 | 7,780 | 3,605 | 4,019 | |
| TOTAL | \$24,968 | \$22,005 | \$15,880 | \$15,800 | |

Schedule of Long-Term Disability Expenses Years Ended June 30, 2003 & June 30, 2002

in thousands

| For the | Years | Ended | June 30, |
|---------|-------|-------|----------|
| 2003 | | | 2002 |

| | Budget | Actual | Budget | Actual |
|-----------------------------|---------|---------|---------|---------------|
| | | | | |
| Professional services: | | | | |
| LTD management fee | \$2,424 | \$2,177 | \$2,760 | \$2,732 |
| Total professional services | 2,424 | 2,177 | 2,760 | 2,732 |
| TOTAL | \$2,424 | \$2,177 | \$2,760 | \$2,732 |

Effective in fiscal year 1998, the legislature began appropriating funding for the administrative costs of several ASRS programs, including LTD, Health Insurance, Outreach Education, actuarial expenses, and legal costs. Because administration of these programs is fully commingled with administration of the overall ASRS, separate budgets were not approved for each program. The amounts shown in the actual column for fiscal year 2003 and 2002 represent only those specifically assigned to the LTD Program.

Schedules of Cash Receipts & Cash Disbursements Years Ended June 30, 2003 & June 30, 2002

| CASH BALANCE, beginning of year | <u>2003</u> \$13,011,948 | <u>2002</u> \$74,586,646 |
|--|---|---|
| RECEIPTS: Member contributions Employer contributions Purchase of back service (membership reimbursements) Transfers from other retirement systems Short-term securities matured & sold Investments matured & sold | 178,464,304 178,464,304 91,567,731 1,984,281 5,430,377,759 17,365,659,227 | 167,728,882 167,728,882 49,365,487 1,467,433 5,537,414,425 15,341,083,843 |
| Real estate sold Mortgage principal payments & sales Building revenues Securities lending program Interest Dividends Miscellaneous TOTAL RECEIPTS | 6,742,753 30,651,097 278,871,837 157,823,144 2,813,796 \$23,723,420,233 | 182,273,996 6,017,850 8,324,163 43,767,682 319,925,871 147,422,368 11,902,919 \$21,984,423,802 |
| | \$25,725, 4 20,255 | \$21,50 1 ,425,002 |
| Retirement, disability & subsidy payments Death benefits Refunds to withdrawing members Transfers to other retirement systems Short-term investments purchased Investment purchases Securities lending program charges Investment manager fees Building expenses Administrative expenses Miscellaneous | 1,206,719,998 15,861,343 35,975,884 7,465,910 5,715,822,457 16,664,480,591 24,786,285 17,277,708 5,522,753 22,818,283 4,610,582 | 1,054,965,770 14,077,910 42,765,105 8,616,818 6,030,899,498 14,813,473,395 36,335,573 17,407,241 7,212,663 18,504,866 1,739,661 |
| TOTAL DISBURSEMENTS | \$23,721,332,794 | \$22,045,998,500 |
| CASH BALANCE, end of year | \$15,099,386 | \$13,011,948 |

Schedule of Professional Consultant Fees Year Ended June 30, 2003

in thousands

Schedule of Net Investment Income Experience by Manager Year Ended June 30, 2003

in thousands

| Manager/Fund | Dividends, Interest & Other | Market Appreciation (Depreciation) | Management Fees | Net Investment Income Produced |
|--------------------------------|-----------------------------------|--|--------------------|---|
| ASRS Internal* | \$226,098 | \$91,793 | \$550 | \$317,340 |
| Bank of Ireland International | 12,909 | (61,908) | 1,425 | (50,424) |
| Bank Of New York | 20,746 | (67,859) | 681 | (47,794) |
| BGI International | 1 | 30,889 | 358 | 30,533 |
| BGI Tactical | - | 8,388 | 1,825 | 6,564 |
| BlackRock | 38,617 | 51,432 | 1,344 | 88,706 |
| Brandes International | 17,063 | (54,474) | 2,423 | (39,834) |
| Brandywine | (0) | 41 | , _ | 41 |
| Byram | 2,489 | 2,698 | 395 | 4,792 |
| Capital Guardian International | 12,332 | (53,086) | 1,912 | (42,665) |
| Columbia Management Co. | 510 | 10,335 | 985 | 9,859 |
| Dimensional Fund | 2,351 | (9,413) | 509 | (7,571) |
| Enhanced Investment Technologi | • | 17,367 | 345 | 18,096 |
| Forstmann-Leff Assoc | 279 | (5,677) | 170 | (5,657) |
| Franklin Portfolio | 7,801 | 63,658 | 463 | 70,996 |
| Frontier Capital | 233 | (757) | 284 | (808) |
| Goldman Sachs | 1,183 | 40,069 | 645 | 40,608 |
| J P Morgan | 24,051 | (66,877) | 1,298 | (44,124) |
| Lehman Brothers, Inc. | - | - | 24 | (24) |
| LSV Asset Management | 3,631 | 31,123 | 424 | 34,330 |
| Mellon Domestic | 11,266 | (99,819) | 510 | (89,064) |
| State Street Global | 2,040 | 20,393 | 249 | 22,185 |
| Tradeweb, LLC | - | - | 6 | (6) |
| Western Asset Management Co. | 22,929 | 5,778 | 560 | 28,148 |
| Wellington Mgmt Co. | 717 | 1,205 | 443 | 1,479 |
| TOTAL | \$408,321 | \$(44,787) | \$17,828 | \$345,706 |

Note: Not included above are non investment interest, fees and other items which are netted against income. LTD funds are not included in this schedule.

For Fiscal Year 2002-2003 the total rate of return was 2.4 percent; the yield on cost will be provided in the fiscal year 2003 actuarial evaluation. The net effective yield was 1.76 percent.

^{*}Internal investment management fees are included in administrative expense.

Schedule of Total Investment Expenses by Manager Year Ended June 30, 2003

in thousands

| Manager/Fund | Management Fees | Real Estate | Security Lending Program | Total Investment Expenses |
|---|--|----------------|--------------------------------|---|
| Bank of Ireland International Bank Of New York Bank One BGI International BGI Tactical BlackRock Brandes International Byram Capital Guardian International Mellon Bank/Cash Management Columbia Management Co. Dimensional Fund Enhanced Investment Technologie Forstmann-Leff Assoc Franklin Portfolio Frontier Capital Goldman Sachs J P Morgan Lehman Brothers, Inc. LSV Asset Management Mellon Domestic State Street Global Tradeweb, LLC | \$1,425 681 358 1,825 1,344 2,423 395 1,912 985 509 | \$5,523 | \$24,786 | \$1,425 681 5,523 358 1,825 1,344 2,423 395 1,912 24,786 985 509 345 170 463 284 645 1,298 24 424 510 249 6 |
| Western Asset Management Co. Wellington Mgmt Co. | 560 443 | | | 560 443 |
| TOTAL | \$17,278 | \$5,523 | \$24,786 | \$47,587 |

Schedule of Investment Manager Expenses Years Ended June 30, 2003 and 2002 in thousands

| | 2003 | 2002 |
|---|------------|------------|
| Axe-Houghton Associates | | \$464 |
| Bank of Ireland International | \$1,425 | 1,208 |
| Bank Of New York | 681 | 399 |
| Bank One AZ | | 228 |
| Barclays Global Investors | 2,182 | 2,707 |
| BlackRock | 1,344 | 1,261 |
| Brandes International | 2,423 | 2,837 |
| Brandywine | 205 | 336 |
| Byram | 395 | 225 |
| Capital Guardian International | 1,912 | 2,854 |
| Columbia Management Co. | 985 | 598 573 |
| Dimensional Fund | 509 345 | 573 |
| Enhanced Investment Technologies Forstmann-Leff Assoc | 345 170 | |
| Franklin Portfolio | 463 | |
| Frontier Capital | 284 | |
| Goldman Sachs | 645 | |
| J P Morgan | 1,298 | 1,785 |
| Lehman Brothers, Inc. | 24 | 1,705 |
| LSV Asset Management | 424 | |
| Mellon Domestic | 510 | 1,690 |
| State Street Global | 249 | 92 |
| Tradeweb, LLC | 6 | |
| Western Asset Management Co. | 560 | 748 |
| Wellington Mgmt Co. | 443 | |
| Total Money Managers | \$17,278 | \$18,005 |

Comprehensive Annual Financial Report Index - Investment Section

CONTENTS

| 58 | Investment Report |
|----|---|
| 60 | Schedule of Investments |
| 60 | Graph - Investment Portfolio Components |
| 61 | Equity Portfolio Profile |
| 62 | Fixed Income Portfolio Profile |
| 63 | Schedule of Broker Commissions |
| 65 | Chart - Investment Allocation |
| 65 | Rates of Return |
| 66 | Graph - Net Income from Investments |
| 66 | Ten-Year Review of Investment Income |

Investment Report

BY GARY R. DOKES, ACTING CHIEF INVESTMENT OFFICER, AND JIM BRUNER, INVESTMENT REVIEW BOARD COMMITTEE CHAIRMAN

Economic Climate

The economy showed modest improvement in the third quarter of 2002. Gross Domestic Product (GDP) expanded at a 4.0 percent annual rate, despite slowing retail sales and little job growth. The unemployment rate fell to a 7-month low of 5.7 percent. However, the manufacturing and transportation industries continued to cut jobs. The housing market remained a bright spot in the economy, as housing construction rebounded sharply in September after three straight months of declines. All the same, consumer confidence fell for the fourth straight month in September, reaching a 10-month low.

During the fourth quarter of 2002, the economy grew only slightly, as consumers cut back spending over job uncertainty, a volatile stock market, and possible war with Iraq. GDP expanded by a 1.4 percent annual rate during the quarter. For all of 2002, the economy grew at a 2.9 percent annual rate. The unemployment rate rose to 6.0 percent during the quarter. Consumer confidence rose in December, but was well off the highs for the year.

During the first quarter of 2003 year, the economy's prospects were clouded by the uncertainties surrounding the onset, duration, and potential consequences of war in Iraq. These concerns also caused consumer confidence to sag and added to a general disinclination of firms to spend, hire, and accumulate inventories. In March, consumer confidence fell to its lowest level since October 1993 and posted the ninth decline in ten months. The unemployment rate at quarter-end was 5.8 percent. Core inflation was held to a low level by a slack in resource utilization and continued improvement in labor productivity. Real GDP rose at an annual rate of just 1.4 percent during the quarter.

In the second quarter of 2003, the economy recorded modest growth, as GDP increased at an annual rate of 2.4 percent. Consumer spending held up fairly well, despite an increase in the unemployment rate to 6.4 percent in June 2003. Consumer confidence rose in April and remained fairly solid through June despite the weak labor market. Low mortgage rates kept housing activity strong. The manufacturing sector reported zero growth, but showed improvement with a rise in new orders and production. At the time of the June 2003 Federal Open Market Committee meeting, the available data did not yet compellingly demonstrate that a material strengthening in economic growth was under way.

Capital Markets

The stock market continued its downward spiral during the third quarter of 2002 amid lower corporate earnings forecasts and fears of a war with Iraq. Large cap stocks, as measured by the S&P 500 index, ended the quarter down 17.3 percent, while the broader Russell 3000 index fell 17.2 percent. The U.S. fixed income market, as measured by the Lehman Aggregate index, gained 4.6 percent. The international equity markets reported the worst quarterly loss in over twelve years, as the MSCI EAFE index fell 19.7 percent.

The stock market rebounded during the fourth quarter of 2002, but ended the year with a loss. Large cap stocks, as measured by the S&P 500 index advanced 8.4 percent during the quarter, while the broader Russell 3000 index gained 8.0 percent. The market declined for the third consecutive year in 2002 and posted the worst annual performance since 1974 as the S&P 500 fell 22.1 percent. International equities, as measured by the MSCI EAFE, gained 6.5 percent during the quarter, but

ended the year down 15.7 percent. The U.S. fixed income market, as measured by the Lehman Aggregate index, gained 1.6 percent during the quarter.

In the first quarter of 2003, pre-war concerns, weak economic reports, and a jump in oil prices created downward pressure on the financial markets. The S&P 500 index fell by 3.1 percent during the quarter and the broad-market Russell 3000 index finished the quarter down 3.0 percent. The year started off with another disappointing quarter for international equities. The MSCI EAFE index declined by 8.1 percent during the quarter, faring worse than U.S. equity markets. Overall, investors seemed to favor fixed income this quarter. The Lehman Aggregate index had another positive quarter, increasing 1.4 percent.

The stock market rebounded during the second quarter of 2003 as the war with Iraq officially ended. During the quarter, the Russell 3000 index increased by 16.2 percent and the S&P 500 rose 15.4 percent. International equities rebounded, with the MSCI EAFE was up 19.6 percent. Bonds lost some of their appeal as U.S. Treasury yields fell to their lowest level in about four decades. However, the Lehman Aggregate index still increased 2.5 percent during the guarter.

ASRS Investment Results

The ASRS asset allocation target remained at 30 percent U.S. fixed income, 53 percent U.S. equities, and 17 percent International equities. This allocation allows the ASRS to prudently diversify investment risk exposure among various asset classes. The target mix reflects the need for the Fund to be well-positioned to generate a long-term annual return of at least the actuarial rate of 8 percent.

The ASRS Total Fund returned 2.4 percent in the fiscal year ended June 30, 2003.

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.

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 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. Retain safety as the principle consideration in the investment of the ASRS assets.
- 2. Achieve the actuarial investment return of 8 percent.
- 3. Maintain a minimum funded status of 100 percent.
- 4. Support excess earnings Permanent Benefit Increase (PBI) (formerly known as Cost or Living allowance or COLA).
- 5. Maintain a relatively stable contribution rate.

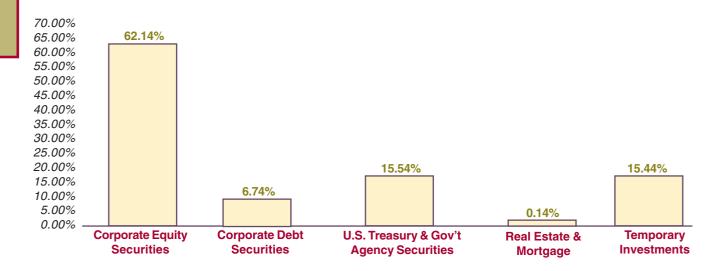
The ASRS is well positioned to achieve the above-listed investment goals.

60

Schedule of Investments Year Ended June 30, 2003 in thousands

| Corporate Equity Securities Fixed Income Securities | \$13, 405,901 |
|---|---------------|
| Corporate Debt Securities | 1,454,699 |
| U.S. Treasury & Gov't Agency Securities | 3,352,902 |
| Real Estate & Mortgages | 30,212 |
| Temporary Investments | 3,329,996 |
| Total Fixed Income Securities | 8,167,810 |
| Total Investments | 21,573,111 |
| Net Payable on Transactions | (3,272,071) |
| TOTAL PORTFOLIO | \$18,645,403 |

INVESTMENT PORTFOLIO COMPONENTS (AT FAIR VALUE)



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.

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

Equity Portfolio Profile Year Ended June 30, 2003

| | Percent of Domestic |
|--------------------------------------|---------------------|
| Ten Largest Domestic Equity Holdings | Equity Portfolio |
| Microsoft Corp Com | 2.33% |
| Pfizer Inc Com Stk USD0.05 | 2.16% |
| General Elec Co Com | 2.08% |
| Citigroup Inc Com | 1.87% |
| Exxon Mobil Corp | 1.84% |
| S&P Midcap Index Fund State | 1.68% |
| Wal Mart Stores Inc Com | 1.48% |
| Bank of America Corp | 1.19% |
| Intel Corp | 1.16% |
| Merck & Co Inc Com | 1.09% |
| Total | 16.86% |

| | Percent of Foreign |
|-------------------------------------|--------------------|
| Ten Largest Foreign Equity Holdings | Equity Portfolio |
| Nestle Sa CHF1 | 1.61% |
| Vodafone Group Plc Ord USD0.10 | 1.37% |
| ING Groep N.V. Cva Euro.55 | 1.14% |
| Telecom Italia Spa Ord Euro.55 | 1.06% |
| E.ON AG Npv | 1.02% |
| BBVA Euro.49 | 0.95% |
| Repsol YPF SA EUR1 | 0.88% |
| Nippon Tel & Tel Corp Y50000 | 0.86% |
| Zurich Financial Services CHF9 | 0.84% |
| BP Plc Sponsored Adr | 0.83% |
| Total | 10.55% |

| Distribution by Market Sector | ASRS Domestic Equity | S&P 500 |
|-------------------------------|----------------------|---------|
| Basic Mart'ls | 3.98% | 3.4% |
| Energy | 5.44% | 9.2% |
| Cnsmr (non-cyc.) | 7.32% | 9.4% |
| Cnsmr (cyclical) | 8.93% | 5.2% |
| Cnsmr Services | 7.03% | 1.8% |
| Industrials | 3.23% | 7.8% |
| Utility | 2.74% | 23.2% |
| Transport | 1.66% | 12.6% |
| Health Care | 13.53% | 2.9% |
| Technology | 16.90% | 15.9% |
| Telecommunications | 2.99% | 4.1% |
| Commercial Services | 4.40% | 0.9% |
| Financial | 21.86% | 3.8% |
| Total | 100.00% | 100.00% |

Summary of Broker Commissions

Domestic Equity \$7,432,326
Foreign Equity \$1,442,668

Fixed Income Portfolio Profile Year Ended June 30, 2003

| Ten Largest Domestic Equity Holdings | Coupon | Maturity | Par Value (in thousands) | Market Value (in thousands) | Percent of Fixed Income Portfolio |
|--------------------------------------|--------|------------|--------------------------|-----------------------------|--------------------------------------|
| FNMA Pool | 4.50% | 07-01-2018 | \$150,000 | \$153,023 | 3.20% |
| U S Treasury Bonds | 8.13% | 08-15-2019 | 63,000 | 91,100 | 1.91% |
| U S Treasury Bonds | 11.25% | 02-15-2015 | 48,000 | 81,822 | 1.71% |
| U S Treasury Bonds | 10.38% | 11-15-2012 | 55,330 | 73,796 | 1.55% |
| FNMA Pool | 5.00% | 08-01-2033 | 69,500 | 70,342 | 1.47% |
| U S Treasury Notes | 5.75% | 11-15-2005 | 58,000 | 63,845 | 1.34% |
| FNMA Pool | 5.00% | 08-01-2033 | 62,700 | 63,459 | 1.33% |
| Federal Home Loan Mtg Corp | 7.00% | 07-15-2005 | 57,000 | 63,345 | 1.33% |
| Federal Nat'l Mtg Assn Debs | 5.75% | 02-15-2008 | 55,500 | 63,221 | 1.32% |
| U S Treasury Bonds | 12.00% | 08-15-2013 | 43,045 | 62,726 | 1.31% |
| • | | | | | 16.47% |

| Distribution by Coupon | Percent |
|---|---|
| 0.00% - 6.5% 6.51% - 7.5% 7.51% - 9.0% > 9.0 years | 67.3% 23.0% 8.3% 1.4% 100.0% |
| Duration | Percent |
| 0 to 2 years 2 to 3 years 3 to 4 years 4 to 5 years 5 to 6 years 6 to 8 years > 8.0 years | 2.8% 2.8% 3.2% 3.9% 4.3% 6.0% 77.0% 100.0% |
| Distribution by Issue | Percent |
| U S Treasury & Government Agency Mortgage Backed Securities Corporates | 22.8% 41.7% 35.5% 100.0% |

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

Schedule of Broker Commissions Domestic Equity Trades Year Ended June 30, 2003

| | No. of | Commission | Total Dollar Amount of | |
|---|------------|------------|---------------------------|------------|
| Broker Name | Shares | Per Share | Trades | Commission |
| Abel Noser Corp, New York | 890,853 | 0.022 | \$ 15,862 | \$ 19,608 |
| Access Sec Inc, Stamford | 1,956,100 | 0.04 | 48,493 | 78,069 |
| Adams Harkness & Hill Inc, Boston | 700,346 | 0.05 | 11,005 | 34,831 |
| Avian Securities Inc, Boston | 1,972,829 | 0.045 | 21,295 | 88,651 |
| B Trade Svcs LLC, New York | 4,886,250 | 0.024 | 78,747 | 118,918 |
| Banc of America Secs LLC, Charlotte | 3,019,284 | 0.045 | 58,057 | 135,492 |
| Bear Stearns & Co Inc, New York | 778,900 | 0.036 | 13,629 | 27,715 |
| Bear Stearns Sec Corp, Brooklyn | 22,056,798 | 0.022 | 690,484 | 474,777 |
| Bernsteins Sanford C & Co, New York | 979,800 | 0.046 | 21,097 | 45,136 |
| Boston Institutional Svcs Inc, Boston | 8,083,608 | 0.051 | 220,680 | 410,414 |
| Bridge Trading Co, St. Louis | 1,218,345 | 0.043 | 28,539 | 52,959 |
| Broadcourt Cap Corp/Sub of MLFP&S, NY | 300,600 | 0.05 | 12,761 | 15,030 |
| Cantor Fitzgerald & Co Inc, New York | 2,372,228 | 0.04 | 51,518 | 95,671 |
| Capital Institutional Svcs, Dallas | 2,448,618 | 0.051 | <i>57,739</i> | 123,902 |
| Citation Group, New York | 452,600 | 0.05 | 11,016 | 22,492 |
| Citigroup Global Markets Inc, New York | 5,742,555 | 0.045 | 120,643 | 256,260 |
| Credit Suisse First Boston Corp, New York | 6,118,721 | 0.045 | 119,107 | 274,589 |
| Dain Rauscher Inc, Minn | 885,323 | 0.043 | 19,384 | 38,037 |
| Deutsche Banc Alex Brown Inc, New York | 12,698,658 | 0.024 | 382,036 | 302,547 |
| Execution Services Inc, New York | 4,281,057 | 0.05 | 71,605 | 215,509 |
| Factset Data Systems Inc, New York | 2,293,415 | 0.054 | 40,187 | 122,709 |
| Fidelity Cap Mkts (Div of NFSC), Boston | 5,091,270 | 0.04 | 102,574 | 205,817 |
| First Union Cap Mkts, Charlotte | 518,050 | 0.051 | 12,091 | 26,498 |
| Frank Russell Sec Inc., New York | 4,011,300 | 0.04 | 109,476 | 159,206 |
| Fulcrum Global Partners LLC, New Jersey | 365,800 | 0.044 | 10,407 | 16,233 |
| Goldman Sachs & Co, New York | 4,308,352 | 0.042 | 93,198 | 181,607 |
| Guzman & Co, New York | 340,600 | 0.024 | 10,402 | 8,092 |
| Instinet Corp, New York | 6,732,454 | 0.015 | 126,113 | 99,909 |
| Investment Technology Groups, New York | 9,982,946 | 0.021 | 223,910 | 205,359 |
| Jackson Partners & Assocs Inc, New York | 766,900 | 0.025 | 19,744 | 19,173 |
| Jeffries & Co, New York | 2,525,556 | 0.044 | 49,623 | 109,949 |
| Jones & Assoc, Westlake Village | 774,901 | 0.045 | 13,013 | 35,102 |
| Jones & Assoc, Westlake Village | 1,590,249 | 0.045 | 38,004 | 71,748 |
| Kalb Voorhis & Co LLC, New York | 494,950 | 0.045 | 11,316 | 22,260 |
| La Branche Financial Svcs/HBI, New York | 2,863,963 | 0.032 | 71,586 | 91,348 |
| Lehman Bros inc, New York | 18,600,631 | 0.027 | 466,714 | 499,823 |
| Liquidnet Inc, Brooklyn | 1,641,241 | 0.022 | 33,391 | 36,407 |
| Lynch Jones & Ryan Inc, Houston | 5,734,031 | 0.046 | 81,936 | 264,973 |
| Merrill Lynch Pierce Fenner Smith Inc NY | 5,766,445 | 0.046 | 136,403 | 266,885 |
| Merrill Lynch Professional Clrg Purchase | 1,100,740 | 0.027 | 23,247 | 29,306 |
| Morgan JP Secs Inc, New York | 1,602,989 | 0.05 | 40,082 | 80,836 |
| Morgan Keegan & Co Inc, Memphis | 770,250 | 0.048 | 17,779 | 36,778 |
| Morgan Stanley & Co Inc, New York | 4,212,069 | 0.045 | 106,832 | 188,873 |
| Oppenheimer & Co Inc, New York | 2,580,200 | 0.045 | 50,520 | 117,344 |
| Piper Jaffray & Hopwood Inc, Minneapolis | 1,059,780 | 0.047 | 26,207 | 49,896 |
| Raymond Jame Inc, St. Petersburg | 576,430 | 0.051 | 11,601 | 29,182 |
| Rochdale Securities Corp | 1,201,000 | 0.042 | 28,132 | 50,138 |
| • | | | | |

| | No. of | Commission | Total Dollar Amount of | |
|--|-------------|------------|---------------------------|---------------|
| Broker Name | Shares | Per Share | Trades | Commission |
| Russell Frank Secs Inc | 2,853,935 | 0.048 | 30,080 | 137,560 |
| Russell Frank Secs, New York | 639,400 | 0.031 | 17,373 | 20,102 |
| Schwab Charles & Co Inc, San Francisco | 3,965,108 | 0.042 | 57,917 | 165,791 |
| SG Cowen Secs Corp, New York | 1,708,360 | 0.045 | 39,462 | 76,088 |
| Soundview Finl Group, Stanford | 683,750 | 0.049 | 11,772 | <i>33,738</i> |
| Spear Leeds & Kellogg, New York | 16,276,833 | 0.015 | 337,459 | 246,165 |
| Standard & Poors Sec Inc, New York | 1,824,041 | 0.056 | 37,151 | 102,388 |
| Thomas & Weisel Inc, San Francisco | 1,348,100 | 0.046 | 25,533 | 62,389 |
| UBS Securities LLC, New York | 2,805,438 | 0.042 | 70,434 | 116,844 |
| Wachovia Securities LLC, New York | 2,148,850 | 0.04 | 45,071 | 86,651 |
| Weeden & Co, New York | 1,506,760 | 0.046 | 38,395 | 69,629 |
| Others (less than \$10,000,000) | 11,251,787 | 0.041 | 206,389 | 458,953 |
| TOTAL | 216,362,347 | | \$4,925,222 | \$7,432,326 |

Schedule of Broker Commissions Foreign Equity Trades Year Ended June 30, 2003

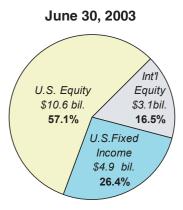
| | No. of | Commission | Total Dollar Amount of | |
|--|-------------|------------|---------------------------|-------------|
| Broker Name | Shares | Per Share | Trades | Commission |
| ARNHOLD & S BLEICHROEDER, NEW YORK | 2,031,745 | 0.027 | \$10,537 | \$55,094 |
| CHEVREUX DE VIRIEU SA, PARIS | 642,100 | 0.032 | 10,704 | 20,680 |
| CITIGROUP GBL MKTS/SALOMON, NEW YORK | 2,682,533 | 0.027 | 41,247 | 73,349 |
| CREDIT SUISSE FIRST BOSTON (EUROPE), LON | 3,174,937 | 0.009 | 17,063 | 28,208 |
| CREDIT SUISSE FIRST BOSTON CORP, N Y | 4,331,316 | 0.037 | 17,569 | 159,402 |
| CS FIRST BOSTON EQUITIES, LONDON | 1,578,828 | 0.005 | 10,275 | 7,549 |
| DEUTSCHE BANC ALEX BROWN INC, NEW YORK | 8,868,568 | 0.006 | 28,450 | 51,610 |
| DEUTSCHE BANK AG (INTL EQUITIES), LONDON | 3,127,422 | 0.01 | 20,654 | 30,911 |
| GOLDMAN SACHS & CO, NY | 33,755,054 | 0.002 | 37,783 | 60,573 |
| GOLDMAN SACHS INTL, LONDON | 2,990,759 | 0.011 | 20,853 | 33,974 |
| GOODBODY STOCKBROKER, NEW YORK | 946,000 | 0.019 | 11,932 | 17,925 |
| HOARE GOVETT SECS LTD, LONDON | 1,060,683 | 0.018 | 11,581 | 19,205 |
| HSBC SECS INC, NEW YORK | 2,133,217 | 0.015 | 19,727 | 31,690 |
| ING BARINGS CORP, NEW YORK | 1,953,700 | 0.01 | 13,262 | 20,357 |
| KLEINWORT BENSON SECS LTD, LONDON | 1,017,782 | 0.022 | 13,301 | 22,663 |
| LEHMAN BROS INTL, LONDON | 102,944 | 0.276 | 14,153 | 28,363 |
| LEHMAN BROS, LONDON | 1,207,807 | 0.022 | 15,442 | 26,956 |
| MERRILL LYNCH PIERCE FENNER SMITH INC NY | 2,232,422 | 0.012 | 17,318 | 26,553 |
| MERRILL LYNCH, NY | 704,517 | 0.025 | 15,467 | 17,644 |
| MORGAN STANLEY & CO INC, NY | 1,792,495 | 0.024 | 24,067 | 42,916 |
| MORGAN STANLEY & CO INTL, LONDON | 1,334,099 | 0.031 | 24,378 | 40,798 |
| NOMURA SECS INTL INC, NEW YORK | 4,380,881 | 0.008 | 27,411 | 34,175 |
| UBS EQUITIES, LONDON | 2,901,120 | 0.017 | 31,051 | 50,154 |
| UBS WARBURG ASIA LTD, HONG KONG | 4,548,776 | 0.005 | 17,298 | 24,505 |
| OTHERS (Less than \$10 million) | 37,743,859 | 0.014 | 238,229 | 517,414 |
| TOTAL | 127,243,564 | | \$709,753 | \$1,442,668 |

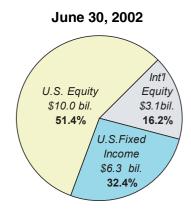
Note: A detialed listing of broker commissions is available upon request. Direct inquires to: ASRS, 3300 North Central Avenue, Phoenix, AZ 85012.

Investment Allocation Year Ended June 30, 2003

PERFORMANCE ACCOUNTING/COMPUTATION STANDARDS

The ASRS investment performance is calculated on a total return basis using time-weighted and dollar-weighted rates of return. Performance is calculated on an accrual basis provided that the accrual information is available from the custodian or record keeper. Performance is generated by asset class, including cash holdings, and aggregated for the total fund.





Rates of Return

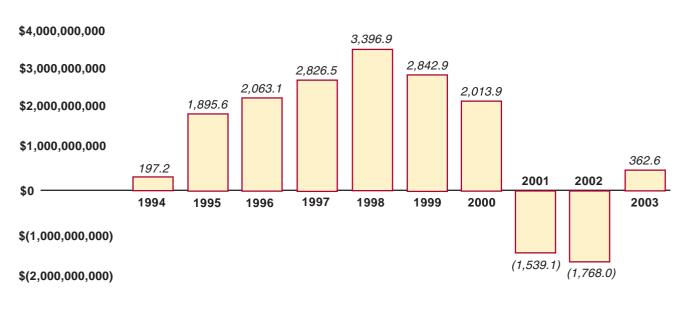
| 9.54% | 1985-86 | 31.50% | 1991-92 | 14.62% | 1997-98 | 21.30% |
|---------|-------------------------------------|--|--|--|---|---|
| 4.95% | 1986-87 | 11.80% | 1992-93 | 16.74% | 1998-99 | 16.80% |
| 2.40% | 1987-88 | 3.10% | 1993-94 | 1.89% | 1999-00 | 10.00% |
| 40.30% | 1988-89 | 14.33% | 1994-95 | 17.78% | 2000-01 | (6.70%) |
| (5.20%) | 1989-90 | 9.52% | 1995-96 | 16.70% | 2001-02 | (8.20%) |
| 32.10% | 1990-91 | 7.99% | 1996-97 | 20.60% | 2002-03 | 2.40% |
| | 4.95% 2.40% 40.30% (5.20%) | 4.95% 1986-87 2.40% 1987-88 40.30% 1988-89 (5.20%) 1989-90 | 4.95% 1986-87 11.80% 2.40% 1987-88 3.10% 40.30% 1988-89 14.33% (5.20%) 1989-90 9.52% | 4.95% 1986-87 11.80% 1992-93 2.40% 1987-88 3.10% 1993-94 40.30% 1988-89 14.33% 1994-95 (5.20%) 1989-90 9.52% 1995-96 | 4.95% 1986-87 11.80% 1992-93 16.74% 2.40% 1987-88 3.10% 1993-94 1.89% 40.30% 1988-89 14.33% 1994-95 17.78% (5.20%) 1989-90 9.52% 1995-96 16.70% | 4.95% 1986-87 11.80% 1992-93 16.74% 1998-99 2.40% 1987-88 3.10% 1993-94 1.89% 1999-00 40.30% 1988-89 14.33% 1994-95 17.78% 2000-01 (5.20%) 1989-90 9.52% 1995-96 16.70% 2001-02 |

Annualized

| | 1 Year | 3 Years | 5 Years | 10 Years |
|----------------------|---------|----------|---------|----------|
| ASRS | 2.40% | (4.30%) | 2.40% | 8.70% |
| Domestic Equity | (0.10%) | (9.40%) | (0.40%) | 10.30% |
| S&P 500 | 0.30% | (11.20%) | (1.60%) | 10.00% |
| Domestic Fixed | 10.70% | 10.20% | 7.50% | 7.40% |
| Lehman Agg. | 10.40% | 10.10% | 7.50% | 7.20% |
| International Equity | (6.30%) | (11.70%) | 0.20% | 5.3% |
| EAFE | (6.10%) | (13.20%) | (3.70%) | 3.1% |

Net Income from Investments Year Ended June 30, 2003

in millions



\$(3,000,000,000)

Year Ended June 30, 2003 Ten Year Review of Investment Income (All figures rounded to nearest \$1,000)

| Fiscal Year | Investment Income | Market Appreciation | Investment Expenses | Net income from investments* |
|----------------|-------------------|------------------------|------------------------|------------------------------|
| 1993-94 | \$477,384 | \$(265,397) | \$14,703 | \$197,284 |
| 1994-95 | 509,614 | 1,401,325 | <i>15,257</i> | 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 | 478,228 | (2,228,394) | 25,218 | (1,768,077) |
| 2002-03 | 442,868 | (51,437) | 22,801 | 362,631 |

^{*}Net income has been restated to reflect unrealized gains & losses.

67

Comprehensive Annual Financial Report Index - Actuarial Section

CONTENTS

| 68 | Actuarial Certification Statement |
|----|---|
| 71 | Actuarial Valuation |
| 73 | General Actuarial Information |
| 74 | Financing Objective |
| 76 | Summary of the Benefit Provisions |
| 86 | Statement of Actuarial Methods & Assumptions Used in Determining Cost |
| 87 | Table A - Schedule of Plan Active Member Valuation Data - Last 6 Years |
| 87 | Table B - Schedule of Retirees Added to and Removed from Rolls - Last 10 Years |
| 88 | Table C - Schedule of Unfunded (Over) Accrued Liabilities - Plan - Last 10 Years |
| 89 | Table D - Relationship between Accrued Liabilities & Assets - Last 10 Years |
| 90 | Table E - Schedule of Recommended vs. Actual Plan Contributions - Last 10 Years |
| 90 | Analysis of Financial Experience for the Plan |

Actuarial Certification Year Ended June 30, 2002

ARIZONA STATE RETIREMENT PLAN Actuarial Certification Statement

This is to certify that Buck Consultants has prepared an actuarial valuation of the Arizona State Retirement Plan as of June 30, 2002.

Actuarial calculations have been made with respect to a total of 373,643 members - 198,870 active employees, 109,942 inactive members, and 60,346 retired members and beneficiaries, and 4,485 members on long term disability. In addition, there are 828 System retirees receiving ad hoc benefits from Plan assets.

The actuarial calculations establish a total benefit cost of 10.40% of the annual compensation of employees. The total normal cost rate is 11.90% of compensation, and the required amortization payment determined in accordance with Arizona Revised Statute Section 38-737 is -1.50% of compensation.

\$12,328,000

\$21,224,218,939

\$(104,840,085)

\$831,499,553

\$22,586,920,751

\$23,623,015,969

\$(1,036,095,218)

\$726,659,468

\$6,989,339,000

The actuarial cost factors as of June 30, 2002 are as follows:

- I. Actuarial accrued liabilities
 - A. Liabilities due to member's benefits
 - 1. Active members

| Houve members | |
|-----------------------------------|-----------------|
| a. Retirement benefits | \$9,634,818,900 |
| b. Health insurance premium | |
| supplement | 846,152,200 |
| c. Disability deferred retirement | |
| benefits | 172,300,500 |
| d. Pre-retirement death benefits | 243,976,100 |
| e. Withdrawal benefits | 347.788.600 |

f. Total active members \$11,245,036,300

Inactive members
 Retired members and beneficiaries
 Disabled members (deferred retirement)
 Retired members (deferred retirement)

5. Benefit increases for other-than-plan participants

6. Total present value of benefits

B. Other miscellaneous liabilities and reserves

C. Reserve for future PBIs \$1,362,701,812

D. Total actuarial accrued liabilityII. Actuarial value of assets

III. Unfunded actuarial accrued liability

(Item I — Item II)

IV. Amortization of unfunded actuarial accrued liability (per Section 38-737)

V. Normal cost for the year

VI. Total contribution for the year (Item IV + Item V)

VII. Total covered payroll (projected to 2002/2003 plan year)

VIII. Total contribution for fiscal years 2004 and 2005 as a percentage of covered payroll

 A. Employee Portion
 5.20%
 0.00%
 5.20%

 B. Employer Portion
 4.10%
 1.10%
 5.20%

 C. Total
 9.30%
 1.10%
 10.40%

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 15, 1996, the Board adopted assumptions to be effective for valuations on and after June 30, 1996. These assumptions are as follows:

1. Investment yield - 8% per annum.

2. Salary increases

| Years of Service | Merit Component | Total Salary 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 | <i>5.75</i> |
| 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 |

3. Rates of disability

| Age | Males | Females |
|-----------|-------|---------|
| 22 | 0.08% | 0.10% |
| 32 | 0.11 | 0.16 |
| 42 | 0.20 | 0.31 |
| <i>52</i> | 0.66 | 0.73 |
| 62 | 1.67 | 1.25 |

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

Years of Service Male Members

| Age | 1 | 2 | 5 | 8 | 10+ |
|-----|--------|--------|--------|-------|--------|
| 22 | 33.24% | 25.31% | 12.68% | 6.65% | 11.04% |
| 32 | 18.87 | 14.03 | 8.76 | 4.85 | 4.67 |
| 42 | 16.93 | 9.82 | 6.24 | 3.83 | 2.01 |
| 52 | 16.18 | 8.54 | 4.43 | 3.16 | 1.38 |
| 62 | 19.05 | 10.18 | 3.73 | 2.53 | 1.10 |

Years of Service Female Members

| Age | 1 | 2 | 5 | 8 | 10+ |
|-----------|--------|--------|--------|--------|--------|
| 22 | 26.86% | 23.58% | 18.08% | 12.31% | 18.04% |
| <i>32</i> | 18.51 | 15.39 | 9.69 | 7.30 | 6.47 |
| 42 | 16.44 | 11.05 | 6.20 | 4.14 | 2.08 |
| <i>52</i> | 14.31 | 9.09 | 5.05 | 2.68 | 1.52 |
| 62 | 14.57 | 9.71 | 4.65 | 2.41 | 0.83 |

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

| Age | 10-14 | 20 | 25 | 30 | 35+ | |
|--------------|-------|-------|-------|--------|--------|--|
| 50 | 5.00% | 5.00% | 5.00% | 10.00% | 12.50% | |
| <i>55</i> | 5.00 | 6.00 | 16.25 | 18.75 | 12.50 | |
| 60 | 9.00 | 26.25 | 25.00 | 30.00 | 30.00 | |
| <i>62</i> | 34.00 | 42.00 | 44.00 | 50.00 | 50.00 | |
| <i>65</i> | 55.00 | 55.00 | 60.00 | 60.00 | 60.00 | |
| 66 and above | 55.00 | 60.00 | 60.00 | 60.00 | 60.00 | |

- 6. Mortality Rates 1983 Group Annuity Mortality Table (with margins, set back one year for males and with no setback for females).
- 7. Mortality rates after disability Post disablement mortality rates are based on experience of other large public sector systems, grading into post-retirement mortality rates at age 83.
- 8. Valuation assets Market value less ten year phase-in of Excess (Shortfall) Investment income.
- 9. Funding method Projected unit credit.

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

The 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 January 8, 2003

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

Dear Retirement Board Members:

Actuarial Valuation of the Plan as of June 30, 2002

We certify that the information contained in the attached 2002 actuarial valuation report is accurate and fairly presents the actuarial position of the Arizona State Retirement Plan (the Plan) as of June 30, 2002.

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 the 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 this valuation report (5.20% for each member and each employer) will apply in the fiscal years beginning July 1, 2003, and July 1, 2004.

Retirement Board January 8, 2003 Page 2

Funding Progress

The actual contribution rate in fiscal 2002 and 2003 is 2.00% for each member and each employer, as the 2000 valuation report calculated. The 2001 valuation report determined a hypothetical rate of 3.86%. This 2002 valuation calculates a rate of 5.20%, to become effective July 1, 2003. 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.

ARS Section 38-737 specifies that the UAAL is to be amortized over a rolling 30-year period. As long as the Plan has a surplus (i.e., a negative UAAL), the amortization period is transitioning into a 30-year period. The period for this valuation is 17 years. When the surplus disappears, or when the transition period ends in 2014, the amortization period will be 30 years.

Benefit Provisions

There have been no benefit enhancements since those of the 2001 legislative session, and the previous valuation report reflected all of those improvements. Table 18 on page 76 of this report gives details of benefit provisions.

Assumptions and Methods

The Board adopted on November 15, 1996, the actuarial assumptions that the actuary recommended, to be effective June 30, 1996. 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 on page 86 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, 2002. 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.

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

Sincerely,

Church & Chille

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

Eva S. Yum, FSA, EA Associate Principal

Eva Ym.

Arizona State Retirement Plan General Actuarial Information

The following charts 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, 2002

| Non-Retired Members | State Employees | Teachers | Political Subdivision Employees | Total |
|----------------------------|--------------------|----------|---------------------------------------|----------|
| Number of members (active) | 44,786 | 63,738 | 90,346 | 198,870 |
| Average age | 44.8 | 44.0 | 44.3 | 44.3 |
| Average years of service | 8.5 | 10.4 | 6.8 | 8.4 |
| Average annual salary | \$33,746 | \$39,302 | \$28,470 | \$33,130 |

As of June 30, 2002

| Retired Members | State Employees | Teachers | Political Subdivision Employees | Total |
|--------------------------|--------------------|----------|---------------------------------------|---------|
| Number of retirees | 15,707 | 18,342 | 26,297 | 60,346 |
| Average age | 71.2 | 68.9 | 70.7 | 70.2 |
| Average monthly benefit | \$1,180 | \$2,026 | \$1,029 | \$1,371 |
| Average years of service | 17.2 | 23.1 | 16.4 | 18.7 |

Of all plan and system retirees at July 1, 2002, 50.8 percent received annuities of more than \$1,000 per month. Less than 1.2 percent receives less than \$100 per month. All other annuity ranges were between 2.6 and 6.3 percent. Of the retirees, 12.4 percent are less than 60.0 years old and 67.8 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 shows, for five fiscal years (fiscal year ending June 30, 2002), the average salary level for state employees, for teachers, and for political subdivision employees other than teachers, and the average for all groups combined.

| | 1997-98 | 1998-99 | 1999-00 | 2000-01 | 2001-02 |
|---------------------------------|----------|----------|----------|----------|----------|
| State employees | \$29,027 | \$30,316 | \$31,380 | \$32,392 | \$33,746 |
| Teachers | 33,995 | 33,970 | 35,356 | 36,634 | 39,302 |
| Political subdivision employees | 24,050 | 25,257 | 25,924 | 27,116 | 28,470 |
| All groups | \$28,457 | \$29,329 | \$30,163 | \$31,281 | \$33,130 |

Financing Objective

The financing objective of the Arizona State Retirement System is to maintain a funding ratio of 100 percent, as measured by the ratio of Retirement Plan actuarial assets to actuarial liabilities. As of June 30, 2002, the date of the most recent actuarial valuation, this funding level is 104.6 percent. When the present actuarial asset of \$23.62 billion is compared to the actuarial liabilities, the asset side of the actuarial balance sheet exceeds the amount of actuarial liabilities by the amount of \$1.0361 billion.

A statutory change effective in 1998 requires that an actuarial valuation be performed only following evennumbered 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, 2000 will remain in effect through the fiscal year that ends June 30, 2003. These rates are described below.

Normal Costs and Required Contribution Rates

The Plan's normal cost for fiscal year (FY) 2000-2002 and for FY 2000-2001 is 10.72 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 negative unfunded actuarial accrued liability (an actuarial surplus), which is treated as a credit on the Plan's required contribution rate. Because of the actuarial surplus, the required contribution rate is lower 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 assets exceed liabilities, the required contribution rate is lower 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 2001-02 was 2.49 percent of pay (2.00 percent pension and health insurance, 0.49 percent LTD). In fiscal year 2002-03 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 | 11.90 |
| Amortization of the UAAL | <u>(1.50)</u> |
| Required contribution rate for FY 2002/2003 | 10.40% |
| Shared by employee and employer | |
| Required contribution rate for FY 2002/2003 | 10.40% |
| Shared by employee and employer | Divided by 2 |
| Required matching contribution rate | <u>5.20%</u> |

Asset Valuation

The methodology used by the ASRS consulting actuary to value assets phases in gains and losses over a five-year period. This results in a "smoothing" effect, minimizing year-to-year volatility in the contribution rate. By deferring some investment gains, the asset valuation methodology also results in some unrealized investment gains.

Long-Term Disability Benefit

In addition to pension, health insurance, and survivor benefits, the ASRS also offers a long-term disability benefit. The financing objective of the long-term disability (LTD) program is to achieve a funding level of 100 percent by the end of 2010.

Effective October 1, 1995, to comply with Internal Revenue Code requirements, liabilities associated with the long-term disability benefit were separated from the Plan. Because no assets were transferred to the new LTD fund, the required contribution rate contains two components: 1) to fund current liabilities, and 2) to amortize the liabilities transferred from the Plan in 1995.

The LTD contribution rate for fiscal year 2003 and fiscal year 2002 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, 2002 and June 30, 2001, LTD assets were \$94.0 million, \$93.1 million respectively. Benefit payments were \$54.8 million for fiscal year 2002 and \$45.8 million for fiscal year 2001.

Summary of the Benefit Provisions of the Arizona State Retirement Plan-Excerpt from Table 18 Actuarial Valuation, June 30, 2002

The Plan makes provisions 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 65th birthday
- (b) an employee's 62nd birthday and completion of at least 10 years of credited service, or
- (c) the first day immediately following the day that the sum of an employee's age and years of total credited service equal eighty.

2. Monthly Life Annuity

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

3. Normal Retirement Benefits

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

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.

| Years of | Benefit |
|------------------|------------|
| Credited Service | 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% |

4. Early Retirement

Age 50 with 5 or more years of credited service.

5. Early Retirement Benefits

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

| Years of | AGE AT DATE OF RETIREMENT | | | | | | | | | | | | | | | | |
|----------|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| Service | <u>50</u> | <u>51</u> | <u>52</u> | <u>53</u> | <u>54</u> | <u>55</u> | <u>56</u> | <u>57</u> | <u>58</u> | <u>59</u> | <u>60</u> | <u>61</u> | <u>62</u> | <u>63</u> | <u>64</u> | <u>65</u> | |
| 5 - 10 | 35% | 40% | 45% | 50% | 55% | 60% | 65% | 70% | 75% | 80% | 85% | 88% | 91% | 94% | 397% | 100% | |
| 10 -25 | 44% | 49% | 54% | 59% | 64% | 69% | 74% | 79% | 84% | 89% | 94% | 97% | 100% | 100% | 100% | 100% | |
| 25 ± | 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 percent 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

- Joint and contingent annuity (with Pop-up) with either 100 percent, 66-2/3 percent or 50 percent of the reduced retirement income payable for the life of the contingent annuitant upon the death of the retiring participant.
- · Period certain and life annuity with either five, ten, or fifteen years of payments guaranteed, or
- 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:

- · Date of cessation of total disability, or
- · Normal retirement date.

This benefit is paid by a separate LTD plan.

2. 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 25 years unless he or she had more than 25 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

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 ASRS to the Plan, with interest
- (b) If (a) is greater than \$5,000, the beneficiary may elect to receive a monthly income for five, ten, or fifteen 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 present value of 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 percent 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) return of contributions with interest, 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 the employee has at least five years of service, the employee is also entitled to a share of the employer contributions with interest. The share is 50% for employees with five years of service and increases 10% 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 employer-sponsored group insurance program for which the retired or disabled member must pay part of the cost.

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 the retiree's own 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 dependent is under age 65
 - \$170 per month if the dependent is 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%).

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

Permanent Benefit Increase (PBI)

Retirees at least age 55 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 Increases 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 1st of the odd numbered plan year is based on the results of the 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- June 30, 2001, the required contribution rate is 2.17%. For the biennium July 2001- June 30, 2003, the required contribution rate is 2.00%

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 percent Ad Hoc COLAs

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

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 percent 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 percent for each point or fraction thereof less than 82.

2. 3.0 percent 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 percent 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 percent of the benefit for each completed year of service (i.e., 50 percent to 90 percent).

K. LEGISLATED PLAN CHANGES ENACTED BY THE 1991 LEGISLATION OF THE STATE OF ARIZONA

1. 3.0 percent 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 percent in his or her base benefit, retroactive to the date of retirement.

2. Recalculation of Retiree Benefits Using 2.0 percent 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 percent 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 percent Ad Hoc Increase

Effective July 1, 1991, all members retired on or before June 30, 1990, shall receive a 2.3 percent 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 percent Tax Equity Allowance

Each member who retired between September 15, 1991 and September 14, 1992, shall receive a tax equity benefit allowance consisting of a permanent increase of 3.0 percent 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 10 years of service upon retirement from the plan shall be eligible for a minimum benefit. If the eligible retiree had at least 10 years of service but less than 15 years, his minimum benefit is \$350 a month. If the eligible retiree had at least 15 years of service but less than 20, his minimum benefit is \$500. If the eligible retiree had at least 20 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 percent Ad Hoc Increase

Effective November 1, 1992, all members retired on or before October 31, 1992, shall receive a 5 percent 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 members 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 ARS Section 38-781.05 Funding Method

ARS Section 38-781.05 of the plan was amended so that the funding period for the plan would continue to be the period between the valuation and June 30, 2002 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

No benefit changes were passed by the 1993 Legislature. However, the Legislature passed legislation to reduce the required contribution rate of 4.09 percent down to 3.14 percent.

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 long-term disability are eligible to receive a cost-of-living adjustment equal to one-half the increase in CPI for the prior calendar year. The COLA will be paid from a reserve of Excess Investment Earnings. If there are no Excess Investment Earnings in reserve, no COLA will be granted.

5. Change in ARS Section 38-737 Funding Period

Section 38-737 was amended to change the funding period of the plan to a rolling 30-year period. The change is to be phased-in over the next 19 years. If the Plan should cease to be overfunded, 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 percent to 100 percent 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 were 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 recipients' 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 1999/2000 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. An employee with 5.0-5.9 years of service is entitles to 25%, 6.0-6.9 years 40%, 7.0-7.9 years 55%, 8.0-8.9 years 75%, 9.0-9.9 years 85% and with 10 or more years of service the member is entitled to 100% of the employer's portion with interest.

Benefit Multiplier Increased to 2.1%

The benefit multiplier will increase from 2.0% to 2.1% effective July 1, 2000.

2. 5 percent Ad Hoc Increase

A 5% retiree ad hoc increase for retirees and beneficiaries effective July 1, 2000.

3. 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.

4. 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 eligibility for the Permanent Benefit Increase was removed.

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 increase 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 increase 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. 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 defined contribution (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.

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.

Statement of Actuarial Methods & Assumptions Used in Determining Cost (adopted by board action 11-15-96) Effective as of June 30, 1996

A. ACTUARIAL ASSUMPTIONS

1. Investment Yield Rate

8% per annum, compounded annually

2. Mortality

(a) Pre-retirement

1983 Group Annuity Mortality Table (with margins, set back one year for males and with no setback for females. Rates at representative ages are shown below.)

Rates of Mortality (Active)

| Age | Male Participants | Female Participants |
|-----------|----------------------|------------------------|
| 20 | 0.000365 | 0.001890 |
| 25 | 0.000444 | 0.000253 |
| 30 | 0.000572 | 0.000342 |
| <i>35</i> | 0.000785 | 0.000476 |
| 40 | 0.001128 | 0.000665 |
| 45 | 0.001932 | 0.001010 |
| 50 | 0.003513 | 0.001647 |
| <i>55</i> | 0.005660 | 0.002541 |
| 60 | 0.008384 | 0.004241 |
| <i>65</i> | 0.013868 | 0.007064 |
| 70 | 0.019296 | 0.012385 |
| | | |

(b) Post-retirement

Healthy rates are based on the 1983 Group Annuity Mortality Table with margins, setback one year for males, and with no setback for females. Disabled rates are based on the experience of other large public sector retirement systems through age 82; thereafter Non-Disabled Mortality is assumed. Rates at representative ages are shown on the next page.

SCHEDULE OF PLAN ACTIVE MEMBER VALUATION DATA LAST 6 YEARS

TABLE A

Contributing Active Members

| Valuation As of June 30 | Number | Annual Payroll | Annual* Average Pay | % Increase in Average Pay |
|----------------------------|---------|-------------------|------------------------|---------------------------------|
| 1997 | 164,390 | \$4,836,336,900 | \$29,420 | 1.3% |
| 1998 | 170,864 | 5,164,127,700 | 30,224 | 2.7 |
| 1999 | 176,368 | 5,487,933,600 | 31,116 | 3.0 |
| 2000 | 183,924 | 5,750,294,662 | 31,265 | 0.0 |
| 2001 | 191,252 | 6,356,698,800 | 33,237 | 3.7 |
| 2002 | 198,970 | 6,989,339,000 | 35,145 | 5.7 |

TABLE B SCHEDULE OF PLAN RETIREES ADDED TO & REMOVED FROM ROLLS LAST 6 YEARS

| Year Ended | Retirants & Beneficiaries Added to Rolls | Annual Allowances Added to Rolls | Retirants & Beneficiaries Removed from Rolls | Annual Allowances Removed from Rolls | Annual Allowances at End of Year | Percentage Increase in Annual Allowances | Average Allowances |
|---------------|---|---|---|---|---|---|-----------------------|
| 1997 | 3,578 | 47,100,792 | | Not Available | 49,743 | 2.7 | 11,340 |
| 1998 | 3,353 | 42,730,632 | 1,179 | Not Available | 51,917 | 3.9 | 11,784 |
| 1999 | 4,380 | 69,694,560 | 1,193 | Not Available | 55,104 | 4.3 | 12,288 |
| 2000 | 4,822 | 86,217,360 | 1,888 | Not Available | 58,038 | 9.9 | 13,500 |
| 2001 | 4,224 | 74,257,920 | 3,342 | Not Available | 58,920 | 7.6 | 14,532 |
| 2002 | 3,954 | 79,570,296 | 2,258 | 28,132,488 | 60,346 | 13.2 | 16,457 |

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

TABLE C

| Year Ended June 30 | Aggregate Accrued Liabilities Plan | Actuarial Value of Net Plan Assets | Assets as a % of Accrued Liabilities Plan | Unfunded (over) Accrued Liabilities- Plan (UAL) | Active Member Payroll | UAL as a % of Active Member Payroll |
|-----------------------|---|--|--|---|-----------------------------|--|
| 1993 | 8,921,137,100 | 9,770,364,00 | 110 | (849,226,900) | 3,778,408,600 | (22.5) |
| 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 | (2,530,119,880) | 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 | (60.7) |
| 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) |

SOLVENCY TEST LAST 10 YEARS

TABLE D

| | Aggre | | | | | | | |
|------------|------------------|-----------------|--|-----------------------------|--------------|---|--------------|----|
| | (1) | (2) | (3) | | | | | |
| Year Ended | Active Member | Retirees and | Active Members (Employer Financed | Net Assets Available for | Liabil by | on of Accities Co Net Ass ole for B | vered ets | |
| June 30 | Contributions | Beneficiaries | Portion) | Benefits | (1) | (2) | (3) | |
| 1993 | 2,072,034,100 | 3,736,129,000 | 3,112,974,000 | 9,770,364,000 | 100 | 100 | 127.3 | |
| 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 | 90 |
| 1999 | 2,679,011,640 | 6,454,089,795 | 6,988,798,093 | 18,760,959,854 | 100 | 100 | 137.8 | 89 |
| 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 | 3,045,008,125 | 10,597,364,389 | 8,943,548,237 | 23,623,015,969 | 100 | 100 | 112.0 | |

TABLE E

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 |
|-----------------------|-----------------------------|---------------------------|--|--|
| 1993 | 3,748,000,000 | 135,644,900 | 3.59% | 3.59% |
| 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% |

^{*}Excludes contributions of \$884,669, \$905,200 and \$926,800 for ASRS System members who contributed 7.49% during 1998, 1997 and 1996, repectively.

ANALYSIS OF FINANCIAL EXPERIENCE FOR THE PLAN (millions)

| Year Ended June 30 | Unfunded Actuarial Liability (UAAL), Prior Year | Normal Cost for the Year | Contribu- tions for the Year | Interest at 8% on UAAL | On Normal Cost | On Contri- butions | Total | Expected UAAL | Actual UAAL | Gain (Loss) for the Year |
|-----------------------|---|-----------------------------------|---------------------------------------|------------------------------|----------------------|--------------------------|----------|------------------|----------------|-----------------------------------|
| 1993 | (631.92) | 400.31 | (278.16) | (50.55) | 32.03 | (11.13) | (29.65) | (539.42) | (849.23) | 309.81 |
| 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) | 397.35 |
| 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) | (1,285.45) |

91

Comprehensive Annual Financial Report Index - Statistical Section

CONTENTS

| 92 | List of Employers |
|-----|---|
| 99 | Graph - Contributions Received |
| 99 | Actual Contribution Rates |
| 100 | Graph - Total Benefit Payments |
| 101 | Graph - Total Reserves for Benefits |
| 102 | Non-retired and Retired Members |
| 103 | Schedule of Revenues by Source |
| 104 | Schedule of Expenses by Type |
| 104 | Schedule of Benefit Expenses by Type |
| 105 | Schedule of Average Benefit Payments for Retirees Under the Plan |
| 106 | Retirement Benefit Options |
| | |

ASRS List of Employers PUBLIC SCHOOLS

Agua Fria UHS Dist. 216 Aguila Elem. Dist. 63 Ajo Unified Dist. 15 Álhambra Elem. Dist. 68 Alpine Elem. Dist. 7 Aİtar 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 Eloy 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 Kaventa 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 Maricopa Unified Dist. 20 Mayer Unified Dist. 43 McNarv Elem. Dist. 23 McNeal Elem. Dist. 55 Mesa Unified Dist. 4 Miami Unified Dist. 40

ASRS List of Employers PUBLIC SCHOOLS CONTINUED

Mingus UHS Dist. 4 Mobile Elem. Dist. 86 Mohave Educational Svcs Coop Mohave UHS Dist. 30 Mohave Valley Elem. Dist. 16 Mohawk Valley 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 Fernando 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 Tanque 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 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. 70

ASRS List of Employers CHARTER SCHOOLS

Accelerated Learning Center

Accelerated Learning Center Laboratory

Acclaim Charter School

Academy of Excellence, Inc.

Academy of Tucson

Adalberto Guerrero Middle School

American Heritage Academy Chart. School

Arizona Career Academy

Arizona Charter Academy

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

Career Pathways Academy

Carmel Comm. Integrated Arts Chart. Sch.

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

Clearview Central Arizona Charter School

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 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

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

Killip Dual Language Charter School

Kingman Academy of Learning

Lake Havasu Charter School

Lake Powell Academy Inc.

Learning Crossroads Basic Academy

Learning Institute

Life Skills Center of Arizona

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.

Multi-Dimensional Literacy Corp

New School for the Arts

New West Charter School

Noah Webster Basic School

Northern Arizona Voc. Institute of Technology

Northland Preparatory Academy

North Star Charter School

Painted Ponv Ranch Charter School

Paradise Education Center

Paramount Academy

Park View Middle School

95

ASRS List of Employers CHARTER SCHOOLS CONTINUED

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

Pimeria Alta Learning Center

Pine Forest Charter School

Point Educational Services

Presidio School

Project YES Middle School, 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 School LLC Charter School

Sequoia Village School

Skyline Technical High School

Skyview Charter School

Sonoran Desert School

Southern AZ Community Academy Charter Sch

Southside Community School

Stepping Stones Academy

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

Village Charter School

Visions Unlimited Academy Inc.

Westmark High Schools

Westwind Academy

ASRS List of Employers COLLEGES

Young Scholars Academy Chart. Sch. Corp. 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 & 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 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

96

97

ASRS List of Employers CITIES & TOWNS CONTINUED

Town of Fredonia

Town of Gila Bend

Town of Gilbert

Town of Guadalupe

Town of Hayden

Town of Kearny

Town of Miami

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 Navajo County Pima County Pinal County Santa Cruz County Yavapai County Yuma County

ASRS List of Employers SPECIAL

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 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 Grand Canyon Airport Authority 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 Northwest Fire District Picture Rock Fire District Pima Home Health Pinewood Sanitary District Posada del sol Héalth 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 Tourism and Sports Authority

Tucson Airport Authority Tusayan Fire District Verde Valley Fire District

Water Utilities Community District

Williams Gateway Airport Authority Yuma County Airport Authority Yuma Mesa Irrigation District 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 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 (In millions)



*LTD not included.

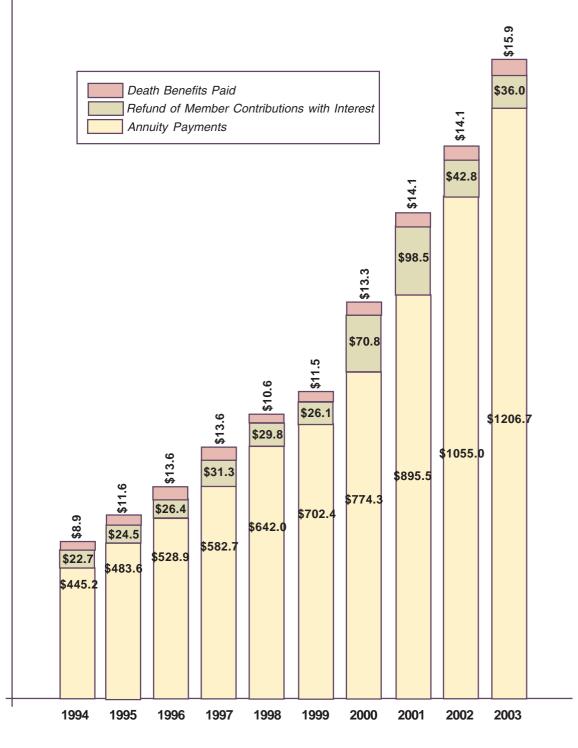
ACTUAL CONTRIBUTION RATES In Percentage of Payroll

| | 1994 | 1995 | 1996* | 1997* | 1998* | 1999* | 2000* | 2001* | 2002* | 2003* |
|----------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Employer | 3.14 | 3.75 | 3.85 | 3.69 | 3.54 | 3.34 | 2.66 | 2.66 | 2.49 | 2.49 |
| Employee | 3.14 | 3.75 | 3.85 | 3.69 | 3.54 | 3.34 | 2.66 | 2.66 | 2.49 | 2.49 |

The contribution rates include long-term disability contributions.

*Effective January 1, 1996, ASRS members (defined contribution) and their employers, each pays a 7.49% contribution rate (includes 0.49% for long-term disability).

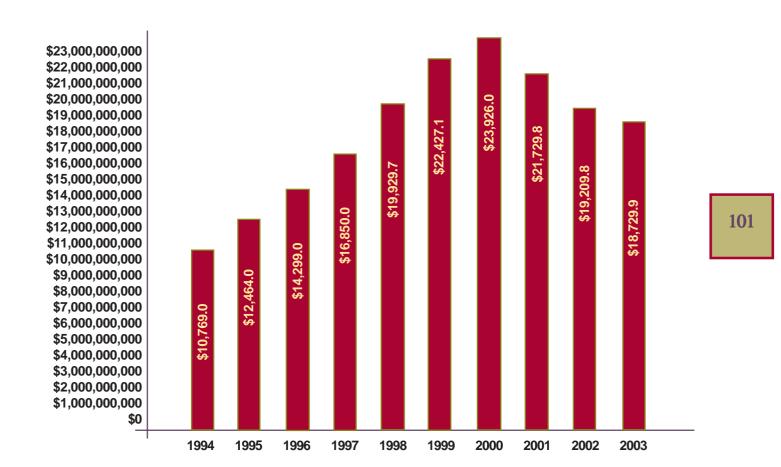
Total Benefit Payments (in millions)



YEAR ENDED JUNE 30

Total benefit payments have increased from \$445 million in fiscal year 1994 to \$1.20 billion in fiscal year 2003, an increase in excess of 14% over the nine-year period. This schedule does not include Social Security benefits.

Total Reserves for Benefits* At Market (in millions)

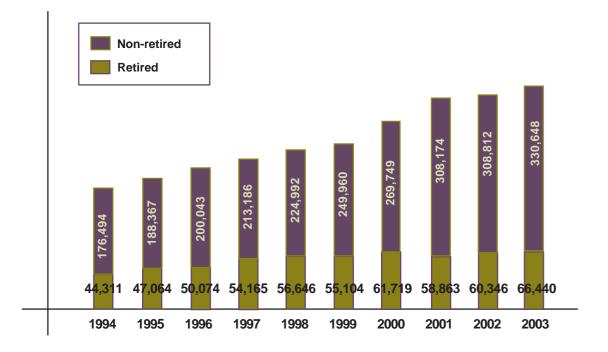


YEAR ENDED JUNE 30

The increase in total reserves for benefits, nearly 77.9% in the past nine years, reflects the actuarial strength of the Retirement System.

*Total Reserves for Benefits had been reported at cost in previous years.

Non-Retired & Retired Members



YEAR ENDED JUNE 30

The ASRS as it exists today has evolved from the consolidation of the original State Retirement System with the former Teachers' Retirement System in 1955. 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.

Ten Year Historical Data (in millions)

REVENUES BY SOURCE

| Fiscal Year | Employer/ Employee Contribution Rate | Employer/ Employee Long-Term Disability Rate* | Employee Contributions as a Percent of Covered Payroll | Employer Contribution Amount | Employee Contribution Amount | Member Reimburse- ments and Other | Net Investment Income | Total Additions |
|----------------|---|---|--|------------------------------------|------------------------------------|--|-----------------------------|--------------------|
| 1994 | 3.14% | N/A | 100.00% | \$124,764 | \$124,764 | \$7,319 | \$725,271 | \$982,118 |
| 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% | *** | 152,957 | 152,957 | 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% | 0.49% | 100.00% | 177,157 | 177,157 | 93,552 | 368,632 | 817,497 |

NOTE: 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 and are paid 50 percent from employer funds and 50 percent by active members.

- * The 1995 Legislature passed legislation to seperate the Health Premium Supplement contributions into a separate account. This portion of the employer contribution rate is included here. This separation is effective at the benefit's inception June 20, 1989.
- ** Effective January 1, 1996, System members (defined contribution) and their employers, each pays a 7.49 percent contribution rate (includes .49 percent for long-term disability).
- *** This information is shown only for the years available in accordance with the parameters of GASB No. 25. Additional years will be added as data becomes available.

EXPENSES BY TYPE

| | Benefit | Administrative | |
|-------------|-----------|----------------|----------------|
| Fiscal Year | Payments | and Other | Total |
| 1994 | \$476,769 | \$5,521 | \$482,290 |
| 1995 | 519,667 | <i>5,970</i> | 525,637 |
| 1996 | 568,901 | <i>8,245</i> | 577,146 |
| 1997 | 627,591 | <i>12,308</i> | 639,898 |
| 1998 | 682,336 | <i>12,541</i> | 694,877 |
| 1999 | 739,979 | <i>15,353</i> | <i>755,332</i> |
| 2000 | 858,308 | 19,744 | 878,052 |
| 2001 | 1,008,150 | 24,640 | 1,032,790 |
| 2002 | 1,111,809 | <i>28,105</i> | 1,139,914 |
| 2003 | 1,258,540 | 37,878 | 1,296,418 |

BENEFIT PAYMENTS BY TYPE

| Retirement Benefits | Death Benefits | Long-Term Disability | Health Benefit Supplement | Refunds of Contributions | Total |
|------------------------|---|---|---|---|--|
| | | | | 4 | 4 |
| <i>\$445,186</i> | \$8,933 | | | <i>\$22,650</i> | \$476,769 |
| 483,573 | 11,577 | | | 24,516 | 519,667 |
| 480,697 | 13,593 | \$20,281 | <i>\$27,953</i> | 26,376 | 568,901 |
| 522,525 | 13,583 | 30,052 | 30,149 | 31,282 | 627,591 |
| <i>574,230</i> | 10,558 | 35,112 | 32,668 | 29,769 | 682,336 |
| 627,612 | 11,485 | 39,839 | 34,935 | 26,108 | 739,979 |
| 695,426 | <i>13,265</i> | 41,220 | 37,651 | 70,754 | 858,308 |
| 809,133 | 14,134 | 45,848 | 40,500 | 98,535 | 1,008,150 |
| 924,172 | 14,078 | 54,804 | 75,990 | 42,765 | 1,111,809 |
| 1,067,481 | 15,861 | 54,688 | 84,534 | 35,976 | 1,258,540 |
| | \$445,186 483,573 480,697 522,525 574,230 627,612 695,426 809,133 924,172 | Benefits Benefits \$445,186 \$8,933 483,573 11,577 480,697 13,593 522,525 13,583 574,230 10,558 627,612 11,485 695,426 13,265 809,133 14,134 924,172 14,078 | Benefits Benefits Disability \$445,186 \$8,933 483,573 11,577 480,697 13,593 \$20,281 522,525 13,583 30,052 574,230 10,558 35,112 627,612 11,485 39,839 695,426 13,265 41,220 809,133 14,134 45,848 924,172 14,078 54,804 | Retirement Benefits Death Disability Long-Term Disability Benefit Supplement \$445,186 \$8,933 \$483,573 \$11,577 480,697 \$13,593 \$20,281 \$27,953 522,525 \$13,583 \$30,052 \$30,149 574,230 \$10,558 \$35,112 \$2,668 627,612 \$11,485 \$39,839 \$4,935 695,426 \$13,265 \$41,220 \$7,651 809,133 \$14,134 \$45,848 \$40,500 924,172 \$14,078 \$54,804 \$75,990 | Retirement Benefits Death Benefits Long-Term Disability Benefit Supplement Refunds of Contributions \$445,186 \$8,933 \$22,650 483,573 11,577 24,516 480,697 13,593 \$20,281 \$27,953 26,376 522,525 13,583 30,052 30,149 31,282 574,230 10,558 35,112 32,668 29,769 627,612 11,485 39,839 34,935 26,108 695,426 13,265 41,220 37,651 70,754 809,133 14,134 45,848 40,500 98,535 924,172 14,078 54,804 75,990 42,765 |

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

Schedule of Average Benefit Payments for Retirees Under the Plan

| | 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 1993 | | | | | | | | | | | |
| Average Monthly Benefit | <i>\$125</i> | \$223 | \$427 | \$671 | \$979 | \$1,482 | \$1,862 | \$1,747 | \$1,254 | \$1,066 | \$812 |
| Number of Retirees | 718 | 6,597 | 8,742 | 7,443 | 6,640 | 5,379 | 3,004 | 827 | 291 | 43 | 39,684 |
| AVERAGE CREDITED SE | RVICE | | | | | | | | | | 18.0 |
| Fiscal Year 1994 | | | | | | | | | | | |
| Average Monthly Benefit | \$126 | \$229 | \$445 | \$701 | \$1,032 | \$1,555 | | \$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 CREDITED SE | RVICE | | | | | | | | | | 17.9 |
| Fiscal Year 1995 | | | | | | | | | | | |
| Average Monthly Benefit | <i>\$125</i> | \$232 | \$454 | <i>\$717</i> | \$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 CREDITED SE | RVICE | | | | | | | | | | 17.9 |
| Fiscal Year 1996 | | | | 4 | | | 4 | | | | |
| Average Monthly Benefit | \$123 | \$239 | \$470 | \$741 | \$1,118 | \$1,669 | \$2,119 | \$2,125 | \$1,509 | \$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 CREDITED SE | RVICE | | | | | | | | | | 17.9 |
| Fiscal Year 1997 | # 400 | 0011 | # 404 | 4750 | A. | 4.740 | Φ0 4 7 0 | Φ0.40 7 | 4.0.0 | A | 00.45 |
| Average Monthly Benefit | \$123 | \$244 | \$481 | \$759 | \$1,151 | \$1,719 | \$2,172 | | \$1,613 | \$1,270 | \$945 |
| Number of Retirees | 1,034 | 8,446 | 10,611 | 8,967 | 8,421 | 7,296 | 3,756 | 947 | 240 | 26 | 49,743 |
| AVERAGE CREDITED SE | RVICE | | | | | | | | | | 18.0 |
| Fiscal Year 1998 | \$122 | COE 1 | \$499 | \$789 | ¢1 100 | ¢1 70E | ¢0.040 | ¢0.010 | ¢1 710 | Φ1 F0F | \$982 |
| Average Monthly Benefit Number of Retirees | φ122 1,149 | \$254 8.788 | | 9,305 | \$1,196 | \$1,785 7,718 | \$2,248 | \$2,318 965 | \$1,749 226 | \$1,565 | ъ96∠ 51,917 |
| AVERAGE CREDITED SE | | 0,700 | 11,050 | 9,303 | 8,786 | 7,710 | 3,908 | 903 | 220 | 22 | 18.0 |
| Fiscal Year 1999 | KVICE | | | | | | | | | | 10.0 |
| Average Monthly Benefit | \$120 | \$259 | \$511 | \$806 | \$1,230 | \$1,846 | \$2,332 | \$2.448 | \$1,969 | \$1.771 | \$1,024 |
| Number of Retirees | 1.251 | φ <u>2</u> 39 | 11,581 | 9,653 | 9,393 | 8,475 | 4,294 | 1,039 | 217 | ψ1,771 21 | 55,104 |
| AVERAGE CREDITED SE | , - | 0,100 | 11,001 | 0,000 | 3,030 | 0,470 | 7,207 | 1,000 | 217 | 21 | 18.2 |
| Fiscal Year 2000 | | | | | | | | | | | 10.2 |
| Average Monthly 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 CREDITED SE | , - | 0, 10 1 | , | 70,007 | 0,011 | 0,.00 | 1,000 | 1,100 | 207 | ., | 17.6 |
| Fiscal Year 2001 | | | | | | | | | | | |
| Average Monthly Benefit | \$130 | \$293 | \$600 | \$939 | \$1,414 | \$2,119 | \$2.694 | \$2,956 | \$2.694 | \$2.671 | \$1,211 |
| Number of Retirees | 1,338 | 9,450 | 12,164 | 10,033 | 10,115 | 9,611 | 4,891 | 1,120 | 180 | 18 | 58,920 |
| AVERAGE CREDITED SE | , | , - | • | , - | , | • | , | , - | | | 18.2 |
| | | | | | | | | | | | |

Note: Statistics are not available for System retirees of the ASRS.

Arizona State Retirement System 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.

NOTES

This report was produced by the Arizona State Retirement System.

Please direct inquiries to:

Office of Communications

Arizona State Retirement System

3300 N. Central Avenue, Suite 1400

Phoenix, AZ 85012