

# **ARIZONA STATE RETIREMENT SYSTEM**

3300 North Central Avenue, Suite 1400

Phoenix, Arizona 85012

**The 48th**  
**Comprehensive Annual Financial Report**  
**of the**  
**Arizona State Retirement System**  
**A Component Unit**  
**of the**  
**State of Arizona**  
**For the Year Ended June 30, 2001**

Dr. Chuck Essigs

Chairman

Arizona State Retirement System Board

Mr. Jim Bruner

Vice Chairman

Arizona State Retirement System Board

Report prepared by the Arizona State Retirement System Staff

LeRoy Gilbertson

Director

# ARIZONA STATE RETIREMENT SYSTEM

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October 23, 2001

The Honorable Jane Hull  
Governor of Arizona  
State Capitol  
1700 W. Washington St.  
Phoenix, Arizona 85007

Dear Governor Hull:

On behalf of the Arizona State Retirement System Board (ASRS), it is my pleasure to present you the 48th Comprehensive Annual Financial Report (CAFR) of the ASRS. This CAFR includes pertinent financial statements, investment information, actuarial data and statistical data. The CAFR also includes 10-year summaries of a variety of indicators that affect or reflect the ASRS operations.

The actuarial valuation performed by Watson Wyatt Worldwide at June 30, 2000 indicated that the ASRS, through proper management and prudent investment practices, maintained a fully-funded status throughout the year. During the fiscal year (FY) ended June 30, 2001, the total rate of return on investments was (6.7) percent.

The FY 2000-2001 employer and employee retirement contribution rates were both 2.17 percent. The actuarially recommended rates for 2001-2002 fiscal year employer and employee, as determined by Watson Wyatt Worldwide, are both 2.00 percent.

Respectfully submitted,

A handwritten signature in cursive script that reads "Chuck Essigs". The signature is written in black ink and is positioned to the left of the printed name.

Dr. Chuck Essigs  
Chairman  
Arizona State Retirement System Board



October 23, 2001

Dr. Chuck Essigs  
Arizona State Retirement System Board  
3300 North Central Avenue, 14<sup>th</sup> Floor  
Phoenix, Arizona 85012

Dear Dr. Essigs:

I am pleased to present the 48th Comprehensive Annual Financial Report (CAFR) of the Arizona State Retirement System (ASRS), a Component Unit of the State of Arizona, for the fiscal year ended June 30, 2001. 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.

This CAFR 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 (GFOA) 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 service to the ASRS, an organizational chart of the ASRS, and a summary of the 2001 retirement legislation. The Financial Section includes the Independent Auditors' Report, the ASRS combined financial statements, 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, the results of the most recent actuarial valuation, the ASRS financing objective, and general actuarial information. The Statistical Section includes information concerning the membership, benefit payments, and additional financial data. The management of the ASRS is responsible for the information presented in the CAFR.

### **History and Overview**

The ASRS was created in 1953 to provide defined contribution retirement benefits to employees of state, university 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 at least 70 percent of the ASRS membership. More than 80 percent voted to transfer to the "plan" effective July 1, 1971.

At the end of fiscal year 2000-2001, total ASRS membership, including active, inactive, and retired members is nearly 360,000, and the number of ASRS employer members is 481, including school districts, 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. More than 58,000 retired annuitants, their survivors, and disabilitants receive a monthly benefit totaling in excess of \$75 million. More than 38,000 retired members are enrolled in the ASRS-sponsored medical or dental plans.

### **Fiscal Year 2001 Developments**

The ASRS Board members are appointed for 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 that a Board member may serve. During FY2000/2001, the following Board members were reappointed to terms that expire on January 19, 2004:

- Mr. Norman Miller
- Dr. Chuck Essigs
- Mr. Karl Polen, Jr.

### **Fiscal Year Accomplishments**

The ASRS met or outperformed established benchmarks for investment returns for four of five of its internally managed portfolios for Fiscal Year ended June 30, 2001:

- E1 Stock Portfolio Met performance benchmark
- E2 Stock Portfolio Outperformed benchmark by 20 basis points
- E3 Stock Portfolio Outperformed benchmark by 70 basis points
- F1 Bond Portfolio Met performance benchmark
- F2 Bond Portfolio Underperformed benchmark by 30 basis points

In addition, 11 of 15 externally managed portfolios met or outperformed established benchmarks for investment returns for Fiscal Year ended June 30, 2001.

Other accomplishments for the investment management division include:

- Transition and successful funding of a \$330 million passive MidCap portfolio
- Restructuring of a \$264 million zero coupon portfolio
- Transition, implementation, and management of a \$1.5 billion fixed income enhanced index portfolio
- Transition, implementation, and successful management of a \$300 million MidCap growth index portfolio
- Successfully rebalancing internal/external fund assets to a 53:30 ratio (53% equity, 30% fixed income)

## **ASRS Information Technology Plan**

This year, staff received approval and funding for its Information Technology (IT) Plan. An estimated 70,000 members will become eligible for retirement in the next decade, resulting in a 75 percent or higher increase in the number of retirees. The technology enhancements contained within the IT plan will eliminate the manual processes that exist today and move the ASRS toward full automation of its processes and services, thus helping the ASRS prepare for the increased demand for services that is certain to accompany this growth.

Some of the highlights of the IT Plan include:

- All member records will be converted to an electronic format.
- The risk associated with maintaining paper files and records that would be irreplaceable in case of loss will be reduced.
- Productivity, without constant infusions of permanent staff, will be increased even though retirement to staff ratio is expected to escalate from 60:1 to 80:1.
- Instantaneous and more consistent service by telephone, the Internet and videoconferencing links throughout Arizona will be provided.
- The infrastructure necessary to conduct secure transactions and information exchange with members and employers over the Internet will be created.
- Members will have secure access to account information, benefit estimates, service purchase estimates and financial planning tools at their convenience, without requiring the assistance of a benefit advisor.
- An enhanced computerized system that can readily calculate legislative changes in benefits will be created and utilized

## **Economic Conditions and Outlook**

The U.S. economy continued its current economic slowdown over the course of the year. Growth slowed during the third and fourth quarters of 2000 with GDP growth at annual rates of 1.3 percent and 1.9 percent, respectively. During the third quarter of 2000, the unemployment rate dropped to 3.9 percent matching the 30-year low. The Federal Reserve held off on further monetary tightening during the third and fourth quarters of 2000 due to the signs that the fast pace of the U.S. economic growth was slowing.

During the first and second quarters of 2001, GDP growth slowed even more relative to the previous two quarters, posting annual growth rates of 1.3 percent and 0.3 percent, respectively. The unemployment rate increased to 4.3 percent. Responding to signs that the U.S. economy was on the brink of recession, the Federal Reserve cut interest rates a total of six times during the first half of 2001. Together, the Federal Reserve cuts totaled 275 basis points, bringing the federal funds rate down to 3.75 percent, the lowest in seven years.

## Financial Information

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 that 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 of America.

## Additions and Deductions

The monies necessary to finance the payment of retirement benefits are accumulated through investment earnings on the ASRS' assets and employer and employee contributions. The primary expenses of the ASRS are the payment of retirement and disability benefits to beneficiaries, the refund of contributions to former members and the cost of administering the ASRS.

The following table shows the principal ASRS revenues and expenses for fiscal years 2000 and 2001, in millions of dollars:

	<u>2001</u>	<u>2000</u>	<u>Variance</u>	<u>% Variance</u>
Revenue Type:				
Member contributions	\$ 163	\$ 153	10	6.5 %
Employer contributions	163	153	10	6.5 %
Member reimbursements or transfers	40	36	4	8.3 %
Investments and other income	(1,421)	2,122	(3,543)	166.9 %
Investment Expense	108	86	21	24.4 %
Total	\$ (1,163)	\$ 2,378	\$ (3,519)	(148.0)%
Benefits	\$ 910	\$ 788	122	15.5 %
Refunds	99	71	28	39.4 %
Transfer to other systems	10	6	4	66.7 %
Administration	12	13	(1)	(7.7)%
Other	2	2	0	0.0 %
Total	\$ 1,033	\$ 880	\$ 153	17.4 %

The employee and employer retirement contribution rates were 2.66 percent for both 2000 and 2001 fiscal years.

For the year ended June 30, 2001, the ASRS achieved a market value rate of return on the total fund of (6.7) percent, whereas the return for the year ended June 30, 2000 was 10.0 percent. This decline in market value rate of return was primarily caused by the significantly lower rates of return on U.S. equities over this period, as demonstrated below:

	<u>One-Year Periods</u> <u>Ended June 30,</u>	
	<u>2001</u>	<u>2000</u>
EAFE Gross	(23.3)%	7.9 %
Lehm Agg	11.2 %	3.1 %
S&P 500	(14.8)%	22.8 %

For the 2001 fiscal year, the administrative expenses of the ASRS were controlled through two primary mechanisms. The general operating budget was appropriated by the legislature, and the Board approved certain statutorily prescribed expenses (including investment expenses and long-term disability administrative costs).

### **Funding Status**

A statutory change effective in 1998 requires that an actuarial valuation be performed only following even-numbered years, rather than annually. This biennial valuation recommends contribution rates for a two-year period. Valuations are prepared annually as of June 30 of each year, the last day of the Plan's plan year and ASRS' fiscal year.

Any excess of additions over deductions is accumulated by the ASRS in order to meet future benefit obligations when due. According to the actuarial valuation as of June 30, 2000, the actuarial present value of the assets of the ASRS was \$21.127 billion. (This value includes an asset valuation method upward adjustment of \$2.317 billion from the book value of the assets.) This figure corresponds to the calculated actuarial accrued liabilities of \$17.549 billion. Thus, the asset side of the actuarial balance sheet exceeds the amount of the actuarial liabilities by \$3.578 billion. 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, on page 31.

### **ASRS Funds**

As of June 30, 2001, the fair value of the ASRS funds (includes retirement, health benefits, and long-term disability funds) was \$21.7 billion. According to statutory restrictions, no more than 80 percent of the fund may be allocated to domestic and international equity securities. No more than 20 percent of the fund may be allocated solely to international equity securities.

During the fiscal year ended June 30, 2001, the ASRS funds remained broadly diversified with investments in domestic and international equities, domestic fixed income, and cash equivalent securities.

As of June 30, 2001, the ASRS funds consisted of 59 percent domestic equity securities, 26.1 percent domestic fixed income securities, including mortgages and short-term investments, and 14.9 percent international equity securities.

### **Internal Control**

ASRS internal accounting controls are designed to provide reasonable assurance regarding the safekeeping of assets and the reliability of financial records. Control procedures and responsibilities are documented and are reviewed periodically.

The Audit Committee, a committee appointed by the Board Chairman, monitors operations and controls throughout the year. The ASRS is audited annually by the independent accounting firm of Deloitte & Touche LLP.

During the FY2000/2001, the ASRS funds returned (6.7) percent. The combined fixed income investments returned 11.3 percent versus the Lehman Brothers Aggregate Bond Index of 11.2 percent. The domestic equity securities returned (11.3) percent versus the (14.8) percent return for the Standard & Poor's 500 Equity

Index. The international equity investments returned (19.6) percent versus (23.3) percent for the Morgan Stanley Capital International Europe, Australia, and Far East Gross Index.

The fiscal year actuarial valuation indicates that the ASRS is well funded and fully capable of meeting all present and projected expenditure requirements.

#### **Other Information**

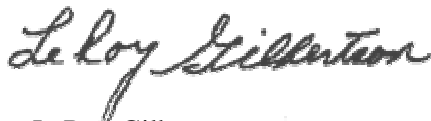
An independent accounting firm audited the financial statements contained in this CAFR. The auditors' report for this year is unqualified, which is the best designation attainable. It means that in the opinion of our independent auditor, our financial statements present fairly, in all material respects, the financial position of the ASRS for the period under audit and the results of its operations for that period are in conformity with accounting principles generally accepted in the United States of America.

The GFOA awards the highest recognition achievable for financial reporting for state and local governments. The ASRS has received the GFOA Certificate of Achievement for Excellence in Financial Reporting in each of the last 13 years. We believe that this year's report also conforms to the requirements for the certificate and we will, therefore, be submitting it to the GFOA for consideration.

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 stewardship of the assets of the ASRS.

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 ASRS.

Respectfully submitted,



LeRoy Gilbertson  
Director

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

## The Arizona State Retirement System

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended  
June 30, 2000

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



*Thomas D. Brewer*  
President  
*Jeffrey L. Esler*  
Executive Director

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to Arizona State Retirement System for its comprehensive annual financial report for the fiscal year ended June 30, 2000. This was the 13th consecutive year that the government has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both accounting principles generally accepted in the United States of America and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.



# ARIZONA STATE RETIREMENT SYSTEM

## ADMINISTRATIVE ORGANIZATION

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### RETIREMENT BOARD MEMBERS

Dr. Chuck Essigs, Chairman, Educator, Mesa (Member since May 1995)  
James Bruner, Vice Chairman, Public, Scottsdale (Member since January 1998)  
Merlin K. DuVal, Retirees, Phoenix (Member since January 1993)  
Bonnie Gonzalez, State Employees, Flagstaff (Member since March 2000)  
James A. Jenkins, Local Government, Scottsdale (Member since June 1995)  
Alan Maguire, At-Large, Phoenix (Member since January 1998)  
Norman Miller, Public, Phoenix (Member since March 1998)  
Karl L. Polen, Jr., Public, Sun Lakes (Member since May 1995)  
Ray Rottas, Public, Paradise Valley (Member since July 1993)

### EXECUTIVE STAFF

LeRoy Gilbertson, Director  
Anthony Guarino, Deputy Director, Chief Operations Officer  
Paul Matson, Chief Investment Officer  
Tom Augheron, Deputy Director External Operations

### SENIOR STAFF

Vacant, Assistant Director, Administrative Services  
Donna Buelow, Assistant Director, Member Services  
Bernard Glick, Chief Internal Auditor  
Kent Smith, Assistant Director, Information Services  
Fred Stork, Legal Counsel

### PROFESSIONAL CONSULTANTS

#### Actuary

Watson Wyatt Worldwide, Dallas, TX

#### Benefits

Fortis Benefits Insurance Co., Kansas City, MO  
Buck Consultants, Chicago, IL

#### Custodial Bank

Mellon Trust, Pittsburgh, PA

#### Independent Auditors

Deloitte & Touche LLP, Phoenix, AZ

#### Investment Advisors

Callan Associates, Inc., San Francisco, CA  
William M. Mercer Investment Consulting Inc., Los Angeles, CA



# ARIZONA STATE RETIREMENT SYSTEM

## ADMINISTRATIVE ORGANIZATION (Continued)

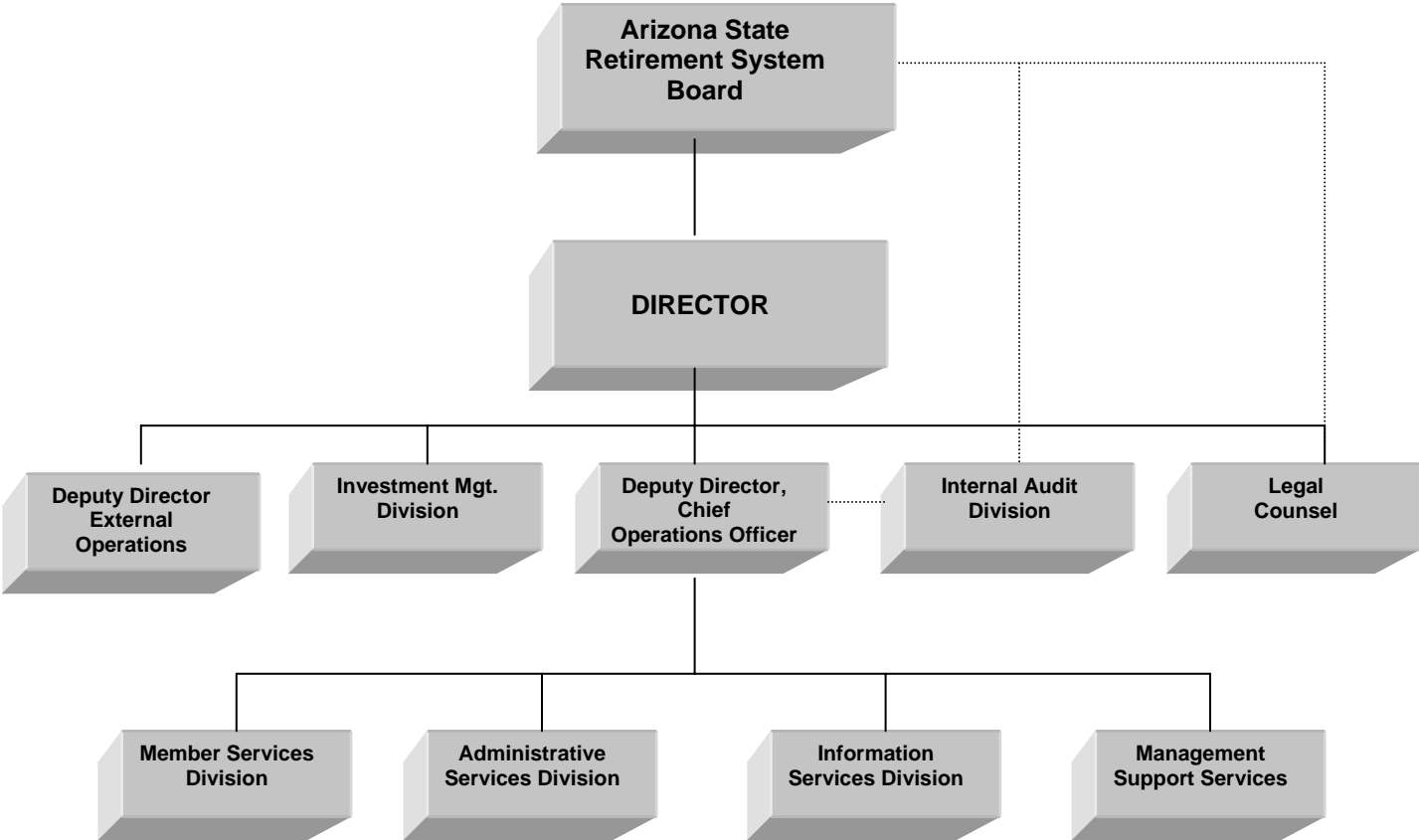
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### INVESTMENT MANAGERS

Axe-Houghton Associates  
Bank Of Ireland Asset Management  
Bank One AZ N A Invest Mg  
Barclays Global Investors  
Blackrock Financial Management  
Brandes Investment Partners  
Brandywine Asset Management  
Capital Guardian Trust Co  
Conseco Capital Management  
Dimensional Fund Advisors  
Duff & Phelps Investment  
J.P. Morgan Investment Mg  
Mellon Capital Management Corporation  
Mellon Equity Associates  
State Street Bank And Trust  
Western Asset Management

# Arizona State Retirement System

## Organizational Chart



# Arizona State Retirement System



*Chuck Essigs  
Chairman*



*James Bruner  
Vice Chairman*

## **Retirement Board Members**



*Merlin K. DuVal*



*Ray Rottas*



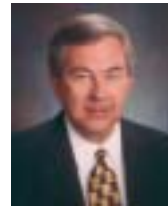
*Bonnie Gonzalez*



*Karl L. Polen, Jr.*



*James A. Jenkins*



*Norman Miller*



*Alan Maguire*

# Arizona State Retirement System



*LeRoy Gilbertson, Director*

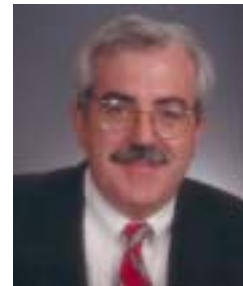
## ***Executive Staff***



*Anthony Guarino  
Deputy Director  
Chief Operations Officer*



*Paul Matson  
Chief Investment Officer*



*Tom Augherton  
Deputy Director  
External Operations*

# ARIZONA STATE RETIREMENT SYSTEM

## SUMMARY OF 2001 RETIREMENT LEGISLATION

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### **HB 2050 - Chapter 68**

#### **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 last session allowing retired teachers to return to work, and it does not affect the requirements of that program.

### **HB 2111 - Chapter 123**

#### **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.

### **HB 2164 - Chapter 383**

Health Insurance Premium Benefit increases the health insurance premium 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

### **SB 1107 - Chapter 376**

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

In addition to the premium benefit paid to ASRS retired and disabled members, this bill 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.

**SB 1100 - Chapter 280**

**Supplementary 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, 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.

**SB 1117 - Chapter 136**

Primarily technical and administrative changes; items of importance to members include:

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

Pop-Up for members choosing a life certain option.

**SB 1295**

**Major changes**

**Employer Option Service Purchase Incentive** - Permits an employer to offer a member who is eligible to retire up to an additional three years of employment. Awaiting implementation decision.

**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) DC 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 Enhancement** - Provides that interest at a rate of 8 percent be paid on the funds held in reserve for the permanent benefit increase (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.

**HB 2008**

**Public Safety Retirement System (PSPRS)**

State and County Park rangers will switch from ASRS to Public Safety Retirement System January 1, 2002.

**HB 1155**

Community college members have option to change to an approved Retirement fund; must be completed by 12/31/2001.



# ARIZONA STATE RETIREMENT SYSTEM

## COMPREHENSIVE ANNUAL FINANCIAL REPORT INDEX – FINANCIAL SECTION

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## INDEPENDENT AUDITORS' REPORT

Arizona State Retirement System Board  
Auditor General of the State of Arizona  
Phoenix, Arizona

We have audited the accompanying combined financial statements of the Arizona State Retirement System ("ASRS") as of June 30, 2001 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 opinion.

In our opinion, such combined financial statements present fairly, in all material respects, the financial position of the ASRS as of June 30, 2001, and the changes in its financial position for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Our audit was conducted for the purpose of forming an opinion on the combined financial statements taken as a whole. The accompanying information and schedules as listed in the Financial Section Table of Contents is presented for the purpose of additional analysis, and is not a required part of the combined financial statements. This information and schedules are also the responsibility of the management of ASRS. Such additional information and schedules have been subjected to the auditing procedures applied in our audit of the combined financial statements and, in our opinion, is fairly stated in all material respects when considered in relation to the combined financial statements taken as a whole.

The Introductory Section, 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 combined financial statements. Such additional information has not been subjected to the auditing procedures applied in our audit of the combined financial statements and, accordingly, we express no opinion on it.

In accordance with Government Auditing Standards, we have also issued our report dated October 23, 2001 on our consideration of the ASRS' internal control over financial reporting. That report is an integral part of an audit performed in accordance with Government Auditing Standards and should be read in conjunction with this report in considering the results of our audit.

October 23, 2001

# ARIZONA STATE RETIREMENT SYSTEM

## COMBINED STATEMENTS OF PLAN NET ASSETS JUNE 30, 2001 WITH COMPARATIVE TOTALS FOR 2000

	Retirement	Health Benefit Supplement (Note 8)	Long-Term Disability (Note 8)	Combined June 30, 2001	Combined June 30, 2000
<b>ASSETS</b>					
Cash (Note 3)	\$ 67,570,275	\$ 439,216	\$ 6,577,155	\$ 74,586,646	\$ 88,672,950
<b>RECEIVABLES:</b>					
Accrued interest and dividends	73,535,141	2,969,785	24,942	76,529,868	63,481,818
Securities sold (Note 3)	124,071,602	5,010,747		129,082,349	104,064,979
Forward contract receivable	16,290,944	657,925		16,948,869	50,717,291
Contributions (Note 7)	5,513,788	1,376,522	1,466,306	8,356,616	12,835,208
Due from Other Funds			5,145,724	5,145,724	10,179,413
Miscellaneous receivables	3,520,584	142,181		3,662,765	1,710,662
Total receivables	222,932,059	10,157,160	6,636,972	239,726,191	242,989,371
<b>INVESTMENTS AT FAIR VALUE (Note 3):</b>					
Temporary investments	1,929,901,653	77,940,870	16	2,007,842,539	1,832,225,492
U. S. gov't obligations	2,985,561,358	120,574,667	16,115,273	3,122,251,298	3,823,679,166
Corporate bonds	1,765,556,015	71,303,619	9,101,112	1,845,960,746	2,516,015,831
Common and preferred stocks	15,362,105,079	620,412,877	54,926,405	16,037,444,361	16,982,231,908
Valley Ventures	23,579	952		24,531	24,269
Real estate mortgages and contracts	224,069,677	9,049,262		233,118,939	233,092,170
Total investments	22,267,217,361	899,282,247	80,142,806	23,246,642,414	25,387,268,836
<b>TOTAL</b>	<b>22,557,719,695</b>	<b>909,878,623</b>	<b>93,356,933</b>	<b>23,560,955,251</b>	<b>25,718,931,157</b>
<b>LIABILITIES</b>					
Payable for securities purchased (Note 3)	269,149,482	10,869,852		280,019,334	432,212,009
Payable for securities lending collateral (Note 4)	1,468,987,037	59,326,405		1,528,313,442	1,299,484,677
Forward contracts payable	15,752,401	636,175		16,388,576	50,761,409
Due to Other Funds	5,145,724			5,145,724	10,179,413
Other	357,628	14,443	173,446	545,517	688,441
Total liabilities	1,759,392,272	70,846,875	173,446	1,830,412,593	1,793,325,949
<b>NET ASSETS HELD IN TRUST FOR PENSION BENEFITS</b>					
	\$ 20,798,327,423	\$ 839,031,748	\$ 93,183,487	\$ 21,730,542,658	\$ 23,925,605,208

(A schedule of Funding Progress is presented on page 31)

The accompanying notes are an integral part of these statements.

# ARIZONA STATE RETIREMENT SYSTEM

## COMBINED STATEMENTS OF CHANGES IN PLAN NET ASSETS YEAR ENDED JUNE 30, 2001 WITH COMPARATIVE TOTALS FOR THE YEAR ENDED JUNE 30, 2000

	Retirement	Health Benefit Supplement	Long-Term Disability	Combined June 30,	
				2001	2000
<b>ADDITIONS:</b>					
Member contributions (Note 7)	\$ 133,504,099		\$ 29,937,541	\$ 163,441,640	\$ 152,957,838
Employer contributions (Note 7)	77,196,152	56,308,031	29,937,541	163,441,724	152,957,449
Transfers from other retirement systems	1,847,846			1,847,846	947,419
Member reimbursements	37,687,091			37,687,091	35,347,830
Total contributions	250,235,188	56,308,031	59,875,082	366,418,301	342,210,536
<b>Investment Income:</b>					
Market value (depreciation)	(1,932,275,476)	(96,154,719)	(10,502,201)	(2,038,932,396)	1,625,595,237
Interest	323,486,379	16,097,468	1,328,744	340,912,591	236,408,989
Dividends	153,453,938	7,636,241	2,677,614	163,767,793	164,225,498
Security loan program (Note 4)	86,180,472	4,288,550		90,469,022	67,527,492
Real estate	9,824,287	488,880		10,313,167	6,851,873
Other	12,423,070	198,171	5,881	12,627,122	21,634,700
Total investment income	(1,346,907,330)	(67,445,409)	(6,489,962)	(1,420,842,701)	2,122,243,789
<b>Less Investment Expenses:</b>					
Investment management fees and monitor services	19,569,281	973,815		20,543,096	21,169,009
Security loan interest expense (Note 4)	78,127,527	3,887,815		82,015,342	60,458,308
Real estate	5,038,940	250,750		5,289,690	5,304,467
Total investment expenses	102,735,748	5,112,380		107,848,128	86,931,784
Net investment (loss) income	(1,449,643,078)	(72,557,789)	(6,489,962)	(1,528,690,829)	2,035,312,005
Total additions	(1,199,407,890)	(16,249,758)	53,385,120	(1,162,272,528)	2,377,522,541
<b>DEDUCTIONS:</b>					
Retirement and disability benefits	809,133,178	40,500,337	45,848,134	895,481,649	774,297,525
Death benefits	14,133,500			14,133,500	13,255,861
Refunds to withdrawing members, including interest	98,535,274			98,535,274	70,754,497
Administrative expenses	10,135,567		2,033,261	12,168,828	13,061,933
Transfers to other retirement systems	10,156,958			10,156,958	5,829,167
Other	2,233,578	80,235		2,313,813	1,800,014
Total deductions	944,328,055	40,580,572	47,881,395	1,032,790,022	878,998,997
NET (DECREASE) INCREASE	(2,143,735,945)	(56,830,330)	5,503,725	(2,195,062,550)	1,498,523,544
<b>NET ASSETS HELD IN TRUST FOR PENSION BENEFITS:</b>					
Beginning of year	22,942,063,368	895,862,078	87,679,762	23,925,605,208	22,427,081,664
End of year	\$ 20,798,327,423	\$ 839,031,748	\$ 93,183,487	\$ 21,730,542,658	\$ 23,925,605,208

The accompanying notes are an integral part of these statements.

# ARIZONA STATE RETIREMENT SYSTEM

## NOTES TO FINANCIAL STATEMENTS YEAR ENDED JUNE 30, 2001

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### 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 System, teachers who were, or later became, eligible through employment to be covered by the System were transferred to the Plan. 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 nonretired members of the System became members of the Arizona State Retirement Plan as prescribed by Laws of 1980, Chapter 238.

A.R.S. 38-783 and A.R.S. 38-797 require separate accounts be established for health insurance premium benefits and long-term disability benefits, respectively. Effective July 1, 1995, the ASRS has established an account for each benefit program and has reported those funds in the combined financial statements.

**Reporting Entity** – The financial statements of the ASRS include the financial activities of all the above funds. A 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 their 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.

The ASRS laws 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, 2001 and 2000, the number of participating employers and employees totaled:

	2001	2000
EMPLOYER UNITS:		
School districts	222	220
Charter schools	119	100
Cities and Towns	64	62
Counties	14	14
Special districts	51	48
Community college districts	10	10
State government	1	1
 Total	 481	 455
EMPLOYEE MEMBERS:**		
Retirees (including beneficiaries)	60,333	58,038
Terminated Employees entitled to future benefits	105,098	85,825
Long-term disability recipients	4,031	3,681
CURRENT EMPLOYEES:		
Fully vested*	191,988	183,924
 TOTAL	 361,450	 331,468

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

\*\* 1999 data updated from 1999 actuarial valuation data

**Benefits** – The Arizona State Retirement 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). 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 (2.0 percent through June 30, 2000; 2.1 percent effective July 1, 2000) multiplied by the years of service credit.

In 2001 the legislature approved 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, which entitles them to a reduced retirement benefit.

Effective July 1, 1988, members of the Plan are eligible for a LTD 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 of service credit 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.

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



**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 agent's 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, 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 appreciation 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.

**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, 2001, 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.

**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. 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 statements of net plan assets.

**Comparative Data** – The accompanying financial statements include certain prior-year summarized comparative information in total but not by net asset class. 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, 2000, from which the summarized information was derived.

### 3. CASH AND INVESTMENTS

**Cash** – At June 30, 2001, the carrying amount of the ASRS’ cash deposits with financial institutions was \$74,586,646, and the bank balance was \$3,268,355. Of the bank balances for the years ended June 30, 2001, \$100,000 was covered with federal depository insurance funds and \$3,168,355, was 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 (“A.R.S.”) 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 (based on cost value of the total fund) may be invested in foreign securities, and those investments shall be made only by investment managers with demonstrated expertise in such investments.
5. No more than 10 percent of the ASRS’ assets may be invested in bonds or other evidences of indebtedness of those multinational development banks in which the United States is a member nation, including the International Bank for Reconstruction and Development, the African Development Bank, the Asian Development Bank, and the Inter-American Development Bank.
6. No more than 1 percent of ASRS assets may be invested in economic development projects authorized as eligible for such investment by the Arizona State Department of Commerce.

GASB 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, 2001, categorized to give an indication of the level of risk assumed by ASRS.

The categories are:

1. Insured or registered investments, or securities held by ASRS or its agent in the ASRS’ name.
2. Uninsured or unregistered investments, with securities held by the counterparty’s trust department or agent in ASRS’ name.

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

Investments not evidenced by securities are not categorized.

The fair value of investments was as follows:

	<b>2001</b>		<b>Fair Value</b>
	<b>1</b>	<b>2</b>	
<b>Investments – Categorized</b>			
Preferred and Common Stock – Domestic	\$ 12,738,975,827		\$ 12,738,975,827
Preferred and Common Stock – Foreign		\$ 2,963,664,047	2,963,664,047
U. S. Government Obligations	2,028,759,843		2,028,759,843
Corporate Obligations – Domestic	1,631,747,064		1,631,747,064
Corporate Obligations – Foreign			
Foreign Currency		3,319,887	3,319,887
	16,399,482,734	2,966,983,934	19,366,466,668
<b>Investments – Not Categorized</b>			
Short-Term Investments*			2,004,522,653
Mortgages			192,443,939
Real Estate			40,675,000
Investments held by Broker/Dealers under Security Loan Program:			
U. S. Government Obligations			1,093,491,455
Corporate Obligations – Domestic			214,238,213
Preferred and Common Stock – Domestic			69,270,302
Preferred and Common Stock – Foreign			265,534,184
TOTAL INVESTMENTS AT FAIR VALUE	16,399,482,734	2,966,983,934	23,246,642,414
Obligations Under Security Loans			(1,528,313,442)
INVESTMENTS AT FAIR VALUE – NET	\$ 16,399,482,734	\$ 2,966,983,934	\$ 21,718,328,972

\* 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, 2001. Securities not having a quoted fair value have been valued on yields currently available on comparable securities of issuers with similar credit ratings. The fair value of investments in foreign securities totaled \$3,232,518,118 at June 30, 2001, and is included in common and preferred stocks, corporate obligations and convertible bonds. Net foreign securities and currency market appreciation are included in determining net increase for the year ended June 30, 2001, and is \$(871,817,766).

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 \$129,082,349 and a payable for securities purchased of \$280,019,334 at June 30, 2001.

#### 4. SECURITIES LENDING PROGRAM

Arizona Revised Statutes 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. 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 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, 2001 and 2000, the ASRS had \$1,528,313,442 and \$1,299,484,677, 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.

#### 5. DERIVATIVES

Derivatives are instruments (securities or contracts) whose value is dependent on such things as stock or bond prices, interest rate levels, or currency exchange rates. ASRS Managers use derivatives to hedge currency risk, reduce transaction costs, obtain market exposure, and enhance returns.

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 investment denominated in foreign currencies.
Futures	Reduce transaction costs; obtain market exposure; enhance returns.
SWAPS	Interest rate risk management; enhance returns.

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

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 4.50 percent to 9.50 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 market 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 2000 was based on June 30, 1998 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 UAAL is negative.

The contribution rates, as actuarially determined, for the years ended June 30, 2000 and 1999 were as follows (the most recent actuarial information available was as of June 30, 2000):

	2000 Valuation (For the contribution period July 1, 2002 – June 30, 2003)		1999 Valuation (For the contribution period July 1, 2001 – June 30, 2003)	
	Amount	Percent of Covered Payroll	Amount	Percent of Covered Payroll
Normal cost	\$ 616,431,588	10.72 %	\$ 587,125,368	10.95 %
Amortization of over-funded past service liability	<u>(310,516,301)</u>	<u>(5.40)%</u>	<u>(228,952,091)</u>	<u>(4.27)%</u>
Total	\$ 305,915,287	5.32 %	\$ 299,866,664	6.68 %
Contributions made as a percentage of the current year covered payroll:				
Employers' share	\$ 152,957,838	2.66 %	\$ 179,086,642	3.34 %
Employees' share	152,957,449	2.66 %	179,086,635	3.34 %
Total	\$ 305,915,287	5.32 %	\$ 358,173,277	6.68 %

The statutory contribution rate for the year ended June 30, 2001 was 2.66 percent (2.17 percent retirement and .49 percent long-term disability) for both the employers' and employees' portion. This was determined by the 1999 actuarial valuation. The actuarially determined contribution rate for the

year ended June 30, 2000 was 2.66 percent (2.17 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 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 ("LTD") 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, Public Safety Personnel Retirement System, Elected Officials Retirement Plan, and 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:

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

Years of Credited Service	Percent of Premium Benefit	Without Medicare		With Medicare A & B		Combinations	
		Retiree Only	Retiree & Dependents	Retiree Only	Retiree & Dependents	Retiree & Dependent One with Medicare, the other without	Retiree & Dependent with Medicare, other dependent without
5.0-5.9	50 percent	\$150	\$300	\$ 85	\$175	\$ 235	\$ 235
6.0-6.9	60 percent	180	360	102	210	282	282
7.0-7.9	70 percent	210	420	119	245	329	329
8.0-8.9	80 percent	240	480	136	280	376	376
9.0-9.9	90 percent	270	540	153	315	423	423
10.0+	100 percent	300	600	170	350	470	470

The ASRS reimbursed approximately \$40.5 million and \$37.7 million towards the cost of group health insurance coverage for the years ended June 30, 2001 and 2000, respectively.

**9. CONTINGENT LIABILITIES**

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

**10. 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 No. 25 is included immediately following the notes to the financial statements.

# ARIZONA STATE RETIREMENT SYSTEM

## REQUIRED SUPPLEMENTAL INFORMATION TEN-YEAR COMPARISON

### Schedule of Funding Progress – Retirement Fund

Actuarial Valuation Date June 30	Actuarial Value of Assets a	Actuarial 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]
1991	\$ 7,822	\$ 7,168	\$ (654)	109.1%	\$ 3,453	(18.9)%
1992	8,842	8,210	(632)	107.7%	3,616	(17.5)%
1993	9,770	8,921	(849)	109.5%	3,748	(22.7)%
1994	10,540	9,668	(872)	109.0%	4,126	(21.1)%
1995	11,521	10,304	(1,217)	111.8%	4,432	(27.5)%
1996	12,579	11,111	(1,468)	113.2%	4,632	(31.7)%
1997	13,692	11,694	(1,998)	117.1%	4,836	(41.3)%
1998	15,577	12,910	(2,667)	120.7%	5,164	(51.6)%
1999	18,043	15,476	(2,567)	116.6%	5,488	(46.8)%
2000	20,291	16,854	(3,437)	120.4%	5,894	(58.3)%

NOTE: Dollar amounts in millions. Values shown for valuation dates on or after June 30, 1996 are for the 401(a) pension plan only.

### Schedule of Employer Contributions

Year Ended June 30	Employer Contributions Required*	Percentage Contributed
1991	\$133,364,246	100 percent
1992	132,273,316	100 percent
1993	135,644,868	100 percent
1994	124,763,806	100 percent
1995	158,559,931	100 percent
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	

\*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.



# ARIZONA STATE RETIREMENT SYSTEM

## NOTES TO REQUIRED SUPPLEMENTAL INFORMATION YEAR ENDED JUNE 30, 2001

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### 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, 2000. The amortization method used for the June 30, 2000 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 \$1,651 million as of June 30, 2000.

#### *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.

##### *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 June 30, 1990, base benefit.

##### *Early Retirement Window*

During the period of May 15, 1989 through November 14, 1989, a member who is eligible for 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.

##### *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 1, 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***

No material changes.

***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.

#### *Supplementary 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, 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.

#### *Employer Option Service Purchase Incentive*

Permits an employer to offer a member who is eligible to retire up to an additional three years of employment. Awaiting implementation decision.

*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 Public Safety Personnel Retirement System ("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.*

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

**SCHEDULE OF ADDITIONS AND DEDUCTIONS  
TEN-YEAR COMPARISON**

Year	Additions by Source								Total
	Employee Contribution Made	Actuarial Employee Contribution	Employer Contribution Made	Actuarial **** Employer Contribution	Percent of Covered Payroll	Actuarially Determined Rate	Net Investment Income	Member Reimbursements and Other	
1991	\$ 133,364,246	\$ 133,364,246	\$ 133,364,246	\$ 133,364,246	3.82%	3.82%	\$ 797,492,654	\$ 788,617	\$ 1,065,009,763
1992	132,273,316	132,273,316	132,273,316	132,273,316	3.60%	3.60%	1,513,686,627	945,836	1,779,179,095
1993*	135,644,868	135,644,868	135,644,868	135,644,868	3.59%	3.59%	2,037,437,881	6,870,755	2,315,598,372
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

\* Other income includes Chapter 137 reimbursements of \$7,505,005, \$5,739,521 and \$5,482,267 for 1995, 1994 and 1993, respectively, which are outlined by State Statute for members buying back service into ASRS. For the fiscal years ended 1990 and 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 market value for 1996. Investment income reported at market 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.

Year	Deductions by Type				Total
	Benefits	Refunds	Investment	Administration and Other	
1991	\$ 357,541,608	\$ 24,812,896	\$ 26,265,692	\$ 8,115,966	\$ 416,736,162
1992	422,183,217	21,444,985	29,599,274	6,210,761	479,438,237
1993	454,118,381	22,650,297	28,934,542	5,521,389	511,224,609
1994	495,150,932	24,516,184	32,403,873	5,970,049	558,041,038
1995	542,524,729	26,376,393	37,535,223	8,244,791	614,681,136
1996	596,308,127	31,282,457	45,248,028	12,307,628	685,146,240
1997	652,567,322	29,769,046	51,199,408	12,541,091	746,076,867
1998	713,870,779	26,108,152	65,886,652	15,352,673	821,218,256
1999	787,553,386	70,754,497	86,931,784	19,743,695	964,983,362
2000	909,615,149	98,535,274	107,848,128	24,639,599	1,140,638,150



# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF ADMINISTRATIVE EXPENSES (Retirement Fund) YEARS ENDED JUNE 30, 2001 AND 2000

	2001		2000	
	Budget	Actual	Budget	Actual
Personnel services:				
Salaries	\$ 5,382,300	\$ 5,558,000	\$ 5,180,600	\$ 4,936,881
Retirement contributions	233,592	231,723	196,516	102,040
Insurance	912,408	770,065	873,484	837,639
Total personnel services	6,528,300	6,559,788	6,250,600	5,876,560
Professional services:				
Computer support		9,312	600,000	267,852
Audit and consulting fees	57,000	68,605	55,650	59,082
Actuarv/benefit consulting	125,000	67,000	125,000	153,700
Miscellaneous outside services	965,000	911,461	850,000	905,431
Total professional services	1,147,000	1,056,378	1,630,650	1,386,065
Communications:				
Postage	250,000	287,507	664,000	886,250
Printing	30,000	62,695	278,000	179,407
Telephone	230,000	307,472	225,000	312,370
Total communications	510,000	657,674	1,167,000	1,378,027
Miscellaneous:				
Board and Council	2,000	5,292		13,695
Office rent	904,000	904,904	903,400	903,400
Equipment	212,000	262,698	600,250	588,280
Furniture		106,822	10,000	25,711
Repair and maintenance	150,000	143,336	140,000	174,862
Equipment rental	5,000	2,449		
Travel	49,900	35,845	49,700	46,690
Supplies	80,000	96,948	85,000	172,214
Insurance	75,900	75,900	76,400	75,900
Dues, subscriptions and publications and advertisement	25,000	23,394	20,000	38,734
Education and training	35,000	32,874	25,000	39,046
Miscellaneous	246,299	8,887	171,000	6,333
PERIS development	169,000	162,414	460,500	382,083
Total miscellaneous	1,954,099	1,861,763	2,541,250	2,466,948
TOTAL	\$ 10,139,399	\$ 10,135,603	\$ 11,589,500	\$ 11,107,600

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF LONG-TERM DISABILITY EXPENSES YEARS ENDED JUNE 30, 2001 AND 2000

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	<u>2001</u>		<u>2000</u>	
	<u>Budget</u>	<u>Actual</u>	<u>Budget</u>	<u>Actual</u>
Professional services:				
Miscellaneous outside services				
LTD management fee	\$ 2,286,700	\$ 2,033,261	\$ 2,035,200	\$ 1,954,333
Total professional services	2,286,700	2,033,267	2,035,200	1,954,333
TOTAL	\$ 2,286,700	\$ 2,033,261	\$ 2,035,200	\$ 1,954,333

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 1999/2000 and 2000/2001 represent only those specifically assigned to the LTD Program.

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULES OF CASH RECEIPTS AND CASH DISBURSEMENTS YEARS ENDED JUNE 30, 2001 AND 2000

	2001	2000
CASH BALANCE, beginning of year	\$ 88,672,950	\$ 3,066,500
<b>RECEIPTS:</b>		
Member contributions	165,670,329	151,550,860
Employer contributions	165,670,413	157,297,150
Purchase of back service (membership reimbursements)	37,687,091	32,177,546
Transfers from other retirement systems	1,847,846	947,419
Short-term securities matured and sold	6,559,662,051	5,814,597,235
Investments matured and sold	22,044,658,528	14,119,217,128
Real estate sold	576,978	
Mortgage principal payments and sales	6,810,859	40,414,328
Building revenue	7,323,625	6,168,844
Securities lending program	90,440,699	64,151,006
Interest	303,427,840	211,547,477
Dividends	163,487,690	158,935,759
Miscellaneous	13,687,000	4,605,813
<b>TOTAL RECEIPTS</b>	<b>29,560,950,949</b>	<b>20,761,610,565</b>
<b>DISBURSEMENTS:</b>		
Retirement, disability and subsidy payments	895,481,651	775,100,305
Death benefits	14,133,500	13,255,861
Refunds to withdrawing members	98,535,274	70,754,497
Transfers to other retirement systems	10,156,958	5,829,167
Short-term investments purchased	6,484,040,041	5,817,543,496
Investment purchases	21,950,237,354	13,866,207,450
Mortgage purchases		20,325,000
Securities lending program charges	82,015,342	57,301,334
Investment manager fees	20,543,096	28,590,130
Building expenses	4,914,732	4,976,208
Administrative expenses	12,168,828	13,992,396
Miscellaneous	2,810,477	2,128,271
<b>TOTAL DISBURSEMENTS</b>	<b>29,575,037,253</b>	<b>20,676,004,115</b>
CASH BALANCE, end of year	\$ 74,586,646	\$ 88,672,950

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF PROFESSIONAL CONSULTANT FEES YEAR ENDED JUNE 30, 2001

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<b>Professional/Consultant</b>	<b>Nature of Service</b>	<b>Expenses</b>
Mellon Bank Trust & Investments	Pension Payment Services	\$ 514,940
Kelly Services Inc	Temporary Agency Services	111,921
Tab Products Co	Records Management Services	83,800
Capitol Systems Corp	Temporary Agency Services	64,671
Watson Wvatt and Company	Actuarv Services	70,607
Deloitte & Touche	Audit Services	67,000
State of Arizona	Misc. Services	51,308
West Group Marketing Research Inc	Market Survey Services	31,820
Charles W. Whetstine	Legal Services	20,195
Buck Consultants, Inc.	Pension Consultants	17,910
Danka Office Imaging Company	Copier Systems	7,780
Randstad Us Lp	Temporary Agency Services	3,770
Goodmans, Inc.	Space Planning	2,680
Kathleen Phillips	Legal Services	2,500
Yoder and Mcfate Reporting Service Inc.	Transcription Services	1,390
Deerfield Moving	Moving Services	1,334
Laurie Skaggs	Procurement Services	800
Catholic Community Services of So Arizona Inc	Deaf Transcription Services	752
West Group	Legal Services	456
Kinkos Inc	Printing Services	316
Aidant Fire Protection Co	Emergencv Services	234
Arizona News Service Inc	Publication Services	193
Total		\$ 1,056,378

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF NET INVESTMENT INCOME EXPERIENCE BY MANAGER YEAR ENDED JUNE 30, 2001

The following chart will serve to show the amount of investment income produced during the year by each of the investment managers.

Manager	Dividends, Interest and Other	Market Appreciation (Depreciation)	Management Fees	Net Investment Income Produced
ASRS-Internal	\$ 219,572,498	\$ (650,745,001)		\$ (431,172,503)
Axe-Houghton Domestic	1,892,383	35,923,420	\$ 108,408	37,707,395
Axe-Houghton International	21,750,975	(286,659,043)	997,185	(265,905,253)
Bank of Ireland International	13,244,822	(152,863,842)	1,848,148	(141,467,168)
Bank One	16,803,468	7,029,629	294,353	23,538,744
BGI-Core	7,158,396	(104,351,661)	380,062	(97,573,327)
BGI-International	481,744	(81,520,384)	142,588	(81,181,228)
BGI- Tactical		(352,513,244)	2,646,986	(355,160,230)
Blackrock	50,247,646	29,121,195	1,145,662	78,223,179
Brandes International	20,128,675	(85,796,411)	3,131,638	(68,799,374)
Brandywine	3,267,812	69,402,978	726,957	71,943,833
Capital Guardian International	13,920,085	(264,978,087)	2,889,267	(253,947,269)
Cash Management	14,578,107	508,491		15,086,598
Conseco Capital			290,076	(290,076)
Dimensional Fund	3,648,315	59,599,208	480,753	62,766,770
Duff & Phelps	21,942,156	(19,973,849)	12,082	1,956,225
J P Morgan	51,346,691	(71,301,772)	2,462,046	(22,417,127)
Mellon Domestic	20,993,196	(228,213,189)	1,866,892	(209,086,885)
Mellon International	772		83,088	(82,316)
State Street	110,830	33,468,229	92,455	33,486,604
Valley Ventures	32,221	262		32,483
Western Asset Mgmt Co	39,226,867	24,930,675	944,450	63,213,092
Total	\$ 520,347,659	\$ (2,038,932,396)	\$ 20,543,096	\$ (1,539,127,833)

NOTE: Not included above are interest, fees and other items which are netted against income.

For Fiscal Year 2000-2001 the total rate of return was (6.70) percent, the yield on cost will be provided in the fiscal year 2001 actuarial valuation. The net effective yield was 8.54 percent.

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF TOTAL INVESTMENT EXPENSES BY MANAGER YEAR ENDED JUNE 30, 2001

MANAGER	Management Fees	Real Estate	Security Loan Program	Total Investment Expenses 2001	Total Investment Expenses 2000
ASRS-Internal					
Axe-Houghton Domestic	\$ 108,408			\$ 108,408	\$ 92,807
Axe-Houghton International	997,185			997,185	1,031,467
Bank of Ireland International	1,848,148			1,848,148	1,846,864
Bank One	294,353	\$ 5,289,690		(4,995,337)	5,613,296
BGI-Core	380,062			380,062	477,409
BGI-International	142,588			142,588	146,888
BGI- Tactical	2,646,986			2,646,986	3,040,058
Blackrock	1,145,662			1,145,662	1,048,443
Brandes International	3,131,638			3,131,638	2,774,927
Brandywine	726,957			726,957	703,761
Capital Guardian International	2,889,267			2,889,267	3,067,297
Cash Management			\$ 82,015,342	82,015,342	60,458,308
Conseco Capital	290,076			290,076	696,557
Dimensional Fund	480,753			480,753	461,859
Duff & Phelps	12,082			12,082	90,000
J P Morgan	2,462,046			2,462,046	2,444,810
Mellon Domestic	1,866,892			1,866,892	1,948,807
Mellon International	83,088			83,088	59,060
State Street	92,455			92,455	36,297
Valley Ventures					
Western Asset Mgmt Co	944,450			944,450	892,869
Total	\$ 20,543,096	\$ (5,289,690)	\$ 82,015,342	\$ 97,268,748	\$ 86,931,784

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF INVESTMENT MANAGER EXPENSES YEARS ENDED JUNE 30, 2001 AND 2000

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	2001	2000
Barclays Global Investors	\$ 3,169,636	\$ 3,664,355
Capital Guardian Trust	2,889,267	3,067,297
Brandes Investment Partners, L.P.	3,131,638	2,774,927
J.P. Morgan Investment Management	2,462,046	2,444,810
Mellon Equity Associates	1,866,892	1,948,807
Bank of Ireland Asset Management	1,848,148	1,846,864
Axe – Houghton Associates, Inc.	1,105,594	1,124,274
Blackrock Financial Management	1,145,662	1,048,443
Western Asset Management Company	944,450	892,869
Brandvwine Asset Management, Inc.	726,958	703,761
Conseco	290,076	696,557
Dimensional Fund Advisors, Inc.	480,753	461,859
Bank One AZ	294,352	308,829
Duff & Phelps Investment	12,082	90,000
Mellon Capital Management Corp.	83,088	59,060
State Street	92,455	36,297
Total Money Managers	\$ 20,543,096	\$ 21,169,009

# ARIZONA STATE RETIREMENT SYSTEM

## COMPREHENSIVE ANNUAL FINANCIAL REPORT INDEX – INVESTMENT PORTFOLIO SECTION

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# ARIZONA STATE RETIREMENT SYSTEM

## INVESTMENT REPORT

BY PAUL MATSON, CHIEF INVESTMENT OFFICER, AND  
JIM BRUNER, INVESTMENT REVIEW BOARD COMMITTEE CHAIRMAN



### Economic Climate

The U.S. economy continued its current economic slowdown over the course of the year. Growth slowed during the third quarter of 2000 with GDP at an annual rate of 1.3 percent from the prior quarter's annual rate of 5.7 percent. Also during the third quarter, the unemployment rate dropped to 3.9 percent in September to match the April 30-year low. The Federal Reserve held off on further monetary tightening due to the signs that the fast pace of the U.S. economic growth was slowing. The economy maintained its slow pace during the fourth quarter of 2000 with GDP at an annual rate of 1.9 percent. The unemployment rate increased to 4.0 percent. The Federal Reserve once again held off on further monetary tightening leaving interest rates unchanged for the quarter.

In the first quarter 2001, GDP growth slowed relative to the previous quarter, rising at an annual rate of 1.3 percent. Responding to signs that the U.S. economy was on the brink of recession, the Federal Reserve cut interest rates three times during the first quarter. Together, the cuts totaled 150 basis points, bringing the federal funds rate down to 5.0 percent. The unemployment rate increased to 4.3 percent.

In the second quarter 2001, GDP growth slowed relative to the previous quarter, rising at an annual rate of 0.3 percent. Continuing concerns of recession prompted the Federal Reserve to cut interest rates three times during the second quarter. The cuts totaled 125 basis points in the second quarter (275 basis points since January 3, 2001). At the end of the second quarter 2001, the federal funds rate was 3.75 percent, the lowest in seven years.

### Capital Markets

The U.S. equity market posted mixed returns in the third quarter of 2000. Returns for the major U.S. stock indices were: (-1.0) percent for the S&P 500, 12.1 percent for the S&P MidCap, and 1.1 percent for the Russell 2000. The U.S. equity market posted negative returns in the fourth quarter of 2000. Returns for the major U.S. stock indices were: (-7.82) percent for the S&P 500, (-3.85) percent for the S&P MidCap, and the (-6.91) percent for the Russell 2000.

Returns posted by the U.S. fixed income market were positive during the last half of 2000. Third quarter and fourth quarter returns as measured by the Lehman Aggregate Index were 3.0 percent and 4.21 percent respectively. International equity markets posted negative returns worse than that of the U.S. equity market during the third and fourth quarters of 2000. Third quarter and fourth quarter returns as measured by the MSCI EAFE (Net) Index were (-8.1) percent and (-2.69) percent, respectively.

The first quarter of 2001 saw a continuation of the worldwide negative equity returns posted the prior quarter. Returns posted for the U.S. equity market during this first quarters of 2001 were: (-11.85) percent for the S&P 500, (-10.77) percent for the S&P MidCap, and (-6.5) percent for the Russell 2000. Returns posted for the international equity markets as measured by the MSCI EAFE (Net) Index were (-13.71) percent.

During the second quarter of 2001, investors saw the effects of the Federal Reserve's six interest rate decreases over the previous six months. Returns posted for the U.S. equity market during the second quarter were 5.8 percent for the S&P 500, 13.2 percent for the S&P MidCap, and 14.3 percent for the Russell 2000. Returns posted for the international equity markets as measured by the MSCI EAFE (Net) Index were (-1.0) percent.

U.S. fixed income performance posted during the first and second quarters of 2001 continued the positive performance posted during the prior two quarters (third and fourth quarter 2000). First and second quarter returns as measured by the Lehman Aggregate Index were 3.0 percent and 0.6 percent respectively.

### **ASRS Investment Results**

The ASRS acted on several occasions to adjust the asset allocation to stay within the allocation parameters established by the ASRS Board. The asset allocation policy adopted by the ASRS Board during the fourth quarter of 1999 (implemented January 1, 2000) of 30 percent U.S. fixed income, 53 percent U.S. equities, and 17 percent international equities allows the ASRS to prudently diversify exposure to different asset classes. The target mix reflects the need for the fund to be well on positioned to generate a long-term annual return of at least the actuarial rate of 8 percent.

The ASRS Total Fund returned (-6.7) percent in the fiscal year ended June 30, 2001.

### **Performance Accounting/Computation Standards**

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

### **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.

The ASRS adheres to the following five investment goals:

1. Retain safety as the principal 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.

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF INVESTMENTS

YEAR ENDED JUNE 30, 2001

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	<b>Fair Value</b>
Corporate Equity Securities	\$ 16,037,444,361
Fixed Income Securities:	
Corporate Debt Securities	1,845,985,277
U.S. Treasury & Gov't Agency Securities	3,122,251,298
Real Estate and Mortgages	233,118,939
Temporary Investments	479,529,097
Total Fixed Income Securities	5,680,884,611
Net Payable on Transactions	(70,556,126)
<b>TOTAL PORTFOLIO</b>	<b>\$ 21,647,772,846</b>

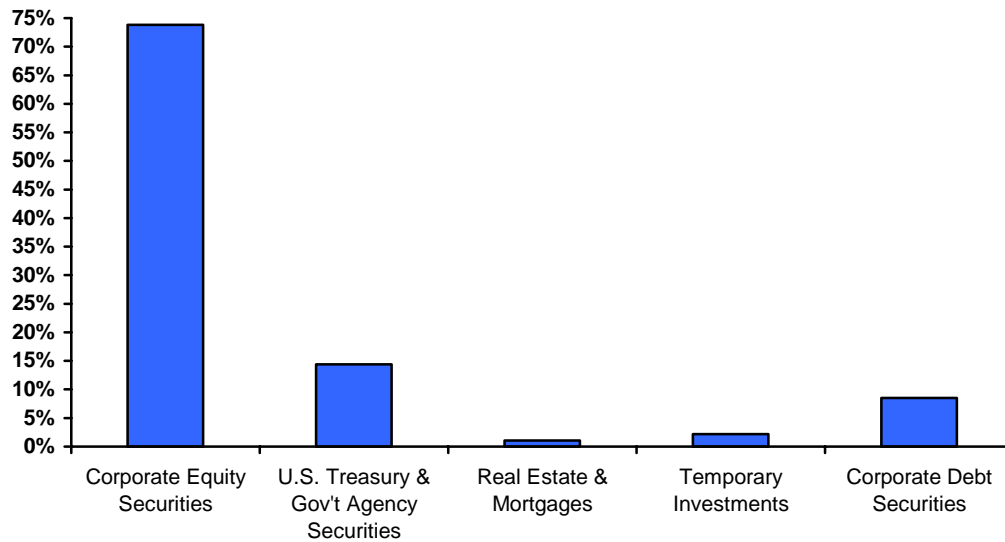
# ARIZONA STATE RETIREMENT SYSTEM

## PERFORMANCE ACCOUNTING/COMPUTATION STANDARDS YEAR ENDED JUNE 30, 2001

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

### INVESTMENT PORTFOLIO COMPONENTS (at fair value)



# ARIZONA STATE RETIREMENT SYSTEM

## EQUITY PORTFOLIO PROFILE

YEAR ENDED JUNE 30, 2001

<b>Ten Largest Domestic Equity Holdings</b>	<b>Percent of Domestic Equity Portfolio</b>
GENERAL ELEC CO COM	3.50 %
MICROSOFT CORP COM	2.80 %
EXXON MOBIL CORP	2.20 %
CITIGROUP INC COM	2.10 %
AOL TIME WARNER INC COM	1.80 %
PFIZER INC COM STK USD0.05	1.80 %
IBM CORP COM	1.50 %
INTEL CORP CALIF COM	1.50 %
WAL MART STORES INC COM	1.40 %
TYCO INTL LTD NEW COM	1.30 %
TOTAL	19.90%

<b>Ten Largest Foreign Equity Holdings</b>	<b>Percent of Foreign Equity Portfolio</b>
UNILEVER ORD 1.4P	1.31 %
DIAGEO ORD 28 101/108P	1.22 %
VODAFONE GROUP PLC ORD USD0.10	1.21 %
ENI EUR1	1.08 %
TOTAL FINA ELF EUR10	1.04 %
BRITISH AMERICAN TOBACCO ORD	1.03 %
TELECOM ITALIA SPA ORD ITL1000	1.02 %
BAYERISCHE MOTOREN WERKE AG	0.98 %
HITACHI LTD Y50	0.96 %
mitsubishi heavy ind y50	0.95 %
TOTAL	10.80%

### Distribution by Market Sector

<b>Market Sector</b>	<b>ASRS Domestic Equity</b>	<b>S&amp;P 500</b>
BASIC MAT'LS	3.96 %	3.98 %
CNSMR (CYCLICAL)	7.39 %	7.34 %
CNSMR (NON-CYC.)	7.16 %	7.28 %
CNSMR SERVICES	5.50 %	5.43 %
COMMERCIAL SERVICES	2.59 %	2.90 %
ENERGY	6.83 %	6.72 %
FINANCIAL	20.55 %	20.48 %
HEALTH CARE	12.63 %	12.71 %
INDUSTRIALS	3.91 %	3.58 %
TECHNOLOGY	20.59 %	20.68 %
TELECOMMUNICATIONS	5.61 %	5.47 %
TRANSPORT	0.62 %	0.73 %
UTILITY	2.66 %	2.70 %
TOTAL	100.0%	100.0%

### Summary of Broker Commissions

<b>Investment Type</b>	<b>Commissions</b>
DOMESTIC EQUITY	\$ 2,852,861
FOREIGN EQUITY	\$ 1,924,564

**NOTE:** A detail listing of investments available upon request.

# ARIZONA STATE RETIREMENT SYSTEM

## FIXED INCOME PORTFOLIO PROFILE YEAR ENDED JUNE 30, 2001

Ten Largest Fixed Income Holdings	Coupon	Maturity	Par Value	Market Value	Percent of Fixed Income Portfolio
UNITED STATES TREASURY BONDS	6.25%	8-15-23	103,075,000	107,333,025	2.30%
FEDERAL NATIONAL MORTGAGE ASSOCIATION	6.50%	11-1-28	62,391,878	61,665,070	1.30%
UNITED STATES TREASURY BONDS	10.38%	11-15-12	45,595,000	57,739,685	1.20%
UNITED STATES TREASURY BONDS	7.88%	11-15-07	50,000,000	52,356,499	1.10%
GOVERNMENT NATIONAL MORTGAGE	7.50%	12-15-28	47,320,445	48,577,276	1.10%
UNITED STATES TREASURY BONDS	8.50%	2-15-20	35,190,000	45,437,326	1.00%
UNITED STATES TREASURY NOTES	7.50%	2-15-05	41,400,000	45,062,241	1.00%
UNITED STATES TREASURY BONDS	10.63%	8-15-15	29,500,000	43,167,054	0.90%
FEDERAL HOME LOAN MORTGAGE CORP	6.00%	3-1-2029	43,089,767	41,618,955	0.90%
FEDERAL HOME LOAN MORTGAGE CORP	6.38%	11-15-03	40,000,000	41,403,998	0.90%

Distribution by Coupon	Percent
0.00% - 6.5%	49.1 %
6.51% - 7.5%	31.7 %
7.51% - 9.0%	14.9 %
9.01% and over	4.3 %
	100.0 %

Duration	Percent
0 to 2 years	3.6 %
2 to 3 years	5.0 %
3 to 4 years	6.1 %
4 to 5 years	6.8 %
5 to 6 years	2.2 %
6 to 8 years	8.7 %
8 years and above	67.6 %
	100.0 %

Distribution by Issue	Percent
U.S. TREASURY & GOVERNMENT AGENCY	20.2 %
MORTGAGE BACKED SECURITIES	40.1 %
CORPORATES	39.7 %
	100.0 %

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF BROKER COMMISSIONS

### DOMESTIC EQUITY TRADES

YEAR ENDED JUNE 30, 2001

Broker Name	No. of Shares	Commission Per Share	Total Dollar Amount of Trades	Commission
ABEL NOSER CORP NEW YORK	362,100	0.015	\$ 14,754,130	\$ 5,432
ABN AMRO CHICAGO CORP CHICAGO	871,100	0.052	40,440,805	45,110
ABN AMRO SEC LLC NEW YORK	128,800	0.044	5,684,318	5,686
AUTRANET INC NY	510,926	0.057	30,844,939	28,886
B TRADE SVCS LLC NEW YORK	319,900	0.020	23,040,662	6,398
BANCBOSTON ROBERTSON STEPHENS SAN FRAN	52,400	0.051	3,257,267	2,685
BEAR STEARNS & CO INC NEW YORK	6,022,137	0.022	302,796,755	132,943
BEAR STEARNS & CO INC NY	285,600	0.042	12,689,098	12,103
BERNSTEIN SANFORD C & CO NEW YORK	290,400	0.051	13,344,565	14,770
BOSTON INSTITUTIONAL SVCS INC BOSTON	7,482,169	0.053	301,102,238	399,669
BRIDGE TRADING CO ST LOUIS	268,100	0.051	13,959,350	13,798
BROOKS SECURITIES INC CLEVELAND	944,850	0.056	32,897,087	52,451
BT ALEX BROWN INC BALTIMORE	895,600	0.045	21,542,495	40,228
CANTOR FITZGERALD & CO INC NEW YORK	169,678	0.034	2,875,609	5,722
CAPITAL INSTL INVESTORS DALLAS	998,900	0.051	51,852,814	50,875
CORRESPONDENT SVCS CORP NEW YORK	254,800	0.059	10,224,704	15,067
CREDIT SUISSE FIRST BOSTON CORP N Y	3,801,061	0.049	152,625,172	187,571
CSFB & DONALDSON LUFKIN NEW YORK	449,400	0.027	23,015,968	12,273
DAIN RAUSCHER INC MINN	65,800	0.030	3,583,733	1,974
DAVIDSON(D A) & CO INC NEW YORK	26,600	0.030	2,383,084	798
DB CLEARING SVCS NEW YORK	708,825	0.057	26,362,685	40,232
DEUTSCHE BK SEC INC NEW YORK	482,400	0.043	19,291,728	20,816
DONALDSON LUFKIN & JENERETTE SEC NY	343,900	0.060	19,583,824	20,634
DRESDNER KLEINWORT BENSON NEW YORK	127,800	0.034	6,895,031	4,375
FACTSET DATA SYSTEMS INC NY	147,950	0.050	9,756,407	7,398
FERRIS BAKER WATTS INC SILVER SPRING	86,000	0.030	1,904,501	2,580
FIDELITY CAP MKTS (DIV OF NFSC) BOSTON	620,430	0.052	29,806,805	32,479
FIRST ALBANY CORP ALBANY	560,300	0.031	15,744,081	17,556
FIRST OPTIONS OF CHICAGO #2 NEW YORK	75,300	0.030	852,136	2,259
FIRST UNION CAP MKTS CHARLOTTE	51,000	0.032	2,522,967	1,622
FLEET SEC (US CLEARING) NEW YORK	149,300	0.030	6,141,724	4,479
FOX-PITT KELTON INC	77,900	0.030	8,156,201	2,337
FRANCIS P MAGLIO & CO INC NEW YORK	36,000	0.030	681,441	1,080
FRIEDMAN BILLINGS WASHINGTON DC	24,500	0.030	708,597	735
GERARD KLAUER MATTISON & CO	85,200	0.043	3,065,223	3,664
GOLDMAN SACHS & CO NY	3,445,600	0.048	161,127,046	164,541
GRUSS OSCAR & SONS NEW YORK	60,400	0.030	1,348,013	1,812
GUZMAN & CO NEW YORK	1,071,000	0.023	53,379,674	24,743
HAMBRECHT & QUIST INC SAN FRANCISCO	82,450	0.059	5,982,606	4,827
IN SEARCH ASSOCIATES INC BROOKLYN	9,500	0.050	1,074,409	475
INSTINET CORP NEW YORK	1,800	0.020	123,696	36
INSTINET CORP NY	2,250,157	0.027	91,117,420	61,061
INVESTMENT TECHNOLOGY GROUPS NEW YORK	1,913,468	0.021	71,799,375	41,089
ISI GROUP INC NY	29,000	0.030	951,090	870

(Continued)



# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF BROKER COMMISSIONS DOMESTIC EQUITY TRADES YEAR ENDED JUNE 30, 2001

Broker Name	No. of Shares	Commission Per Share	Total Dollar Amount of Trades	Commission
JEFFERIES & CO INC NEW YORK	130,700	0.050	\$ 4,950,124	\$ 6,560
KEEFE BRUYETTE AND WOODS JERSEY CITY	220,900	0.060	11,796,225	13,254
KING C L & ASSOC ALBANY	22,300	0.030	1,002,019	669
LAZARD FRERES & CO NEW YORK	288,900	0.034	14,895,050	9,939
LEHMAN BROS INC NEW YORK	4,106,920	0.039	176,861,311	158,821
LIQUIDNET INC BROOKLYN	45,400	0.020	1,798,097	908
LYNCH JONES & RYAN INC HOUSTON	1,721,800	0.050	79,878,128	85,257
MERRILL LYNCH PIERCE FENNER SMITH INC NY	2,873,742	0.047	108,560,284	133,707
MONTGOMERY SECURITIES SAN FRANCISCO	2,091,184	0.041	99,297,413	85,653
MORGAN J P SECS INC NEW YORK	672,700	0.053	28,354,107	35,798
MORGAN STANLEY & CO INC NY	3,927,591	0.051	131,290,748	202,254
NATIONAL FINL SVCS CORP NEW YORK	4,500	0.025	195,679	113
NEEDHAM & CO NEW YORK	354,200	0.034	16,598,765	12,036
OPPENHEIMER & CO INC NEW YORK	557,600	0.056	17,366,958	31,405
PERSHING DIV OF DONALDSON	44,100	0.030	2,285,358	1,323
PIPER JAFFRAY & HOPWOOD INC	48,300	0.057	2,241,305	2,739
PRUDENTIAL SEC INC NEW YORK	911,100	0.048	36,283,363	43,609
RAYMOND JAMES & ASSOC INC ST PETERSBURG	175,100	0.032	5,966,953	5,541
ROBINSON HUMPHREY	46,600	0.060	1,272,613	2,796
SCHWAB CHARLES & CO INC SAN FRANCISCO	142,900	0.034	5,932,660	4,833
SEI FINANCIAL SERVICES CO NY	108,700	0.053	6,953,740	5,727
SG COWEN SECS CORP NEW YORK	1,333,800	0.052	51,176,030	69,494
SMITH BARNEY INC NEW YORK	3,519,079	0.050	139,158,699	176,804
SOUNDVIEW FINL GROUP STANFORD	10,200	0.030	602,106	306
SPEAR LEEDS & KELLOGG	434,700	0.030	14,180,392	13,041
STANDARD & POORS SEC INC NEW YORK	172,000	0.050	6,485,433	8,600
STATE STREET BROKERAGE SVCS BOSTON	370,600	0.026	16,293,665	9,523
SUTRO AND CO INC SAN FRANCISCO	70,300	0.030	3,528,788	2,109
THOMSON INSTITUTIONAL SVCS INC NY	73,800	0.050	3,567,262	3,690
TROSTER SINGER STEVENS JERSEY CITY	4,000	0.020	293,905	80
UBS PAINWEBBER INC WEEHAWKEN	169,700	0.054	8,738,817	9,192
WACHOVIA SEC INC CHARLOTTE	483,700	0.051	28,764,787	24,741
WARBURG DILLON READ LLC NEW YORK	1,450,581	0.052	52,840,279	75,954
WEEDEN & CO NEW YORK	904,000	0.054	42,498,761	48,968
WESTMINSTER RES ASOC/BROADCORT NEW YORK	302,000	0.050	8,719,377	15,100
WILLIAMS CAP GROUP LP NEW YORK	91,000	0.030	1,756,199	2,730
WILSHIRE ASSOCIATES SANTA MONICA	348,800	0.052	15,306,908	18,302
<b>TOTAL</b>	<u>65,562,698</u>		<u>\$ 2,769,331,626</u>	<u>2,852,861</u>

(Concluded)

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF BROKER COMMISSIONS FOREIGN EQUITY TRADES YEAR ENDED JUNE 30, 2001

Broker Name	No. of Shares	Commission Per Share	Total Dollar Amount of Trades	Commission
ABG SECS NEW YORK	302,800	0.044	\$ 5,277,358	13,226
ABN AMRO AUST SYDNEY	61,600	0.027	569,866	1,674
ABN AMRO CHICAGO CORP CHICAGO	715,627	0.028	17,601,498	20,098
ABN AMRO EQ AUST LTD SYDNEY	307,000	0.010	2,056,435	3,091
ABN AMRO EQUITIES (UK) LTD LONDON	559,849	0.020	7,331,604	10,972
ABN AMRO HOARE GOVETT LONDON	2,960,545	0.010	19,673,935	30,629
ABN AMRO SECS USA INC CHICAGO	129,979	0.044	2,279,980	5,714
ANDERSON BRATENIUS GRUNDBERG SWEDEN	57,800	0.053	1,539,197	3,085
ARNHOLD & S BLEICHROEDER NEW YORK	1,224,090	0.070	44,684,101	85,298
BANK JULIUS BAER FRANKFURT	50,500	0.072	2,332,408	3,660
BANQUE PARIBAS PARIS	1,800	0.111	79,696	200
BARING SECURITIES LTD HONG KONG	111,500	0.012	549,624	1,385
BEAR STEARNS & CO INC NEW YORK	212,200	0.040	4,195,584	8,488
BEAR STEARNS & CO INC NY	52,800	0.433	9,538,642	22,864
BROCKHOUSE AND COOPER MONTREAL	3,300	0.170	561,276	561
BT ALEX BROWN INC BALTIMORE	421,800	0.040	4,474,244	16,872
BURNS FRY HOARE GOVETTE INC NY	29,700	0.053	1,055,830	1,584
C S FIRST BOSTON HONG KONG	674,300	0.011	4,343,875	7,363
CANADIAN IMP BK ** SEE LONG DESC**	237,500	0.040	6,915,565	9,552
CARNEGIE INTL LONDON	31,300	0.047	740,873	1,479
CAZENOVE & CO OVERSEAS HONG KONG	125,000	0.020	1,013,129	2,539
CAZENOVE & CO LONDON	2,545,256	0.013	18,952,030	33,146
CHARTERHOUSE TILNEY LONDON	934,770	0.012	7,717,629	11,534
CHEVREUX DE VIRIEU SA PARIS	73,640	0.161	5,431,839	11,850
CI NORDIC SEC AB STOCKHOLM	60,900	0.036	1,038,669	2,164
CITIBANK SINGAPORE	24,000	0.026	205,679	619
COMMERCE BK AG LONDON	179,450	0.006	710,684	1,068
COMMERZ SEC JAPAN CO LTD TOKYO	34,800	0.043	2,572,692	1,486
COMMERZBANK CAPITAL MARKETS CORP NY	159,100	0.036	2,843,637	5,676
COMMERZBANK LONDON	506,570	0.010	3,288,380	4,912
COMMERZBANK NEW YORK	46,553	0.005	94,670	237
CREDIT LYONNAIS SECS (ASIA) HONG KONG	1,698,000	0.005	3,165,176	7,908
CREDIT LYONNAIS SECS HONG KONG	368,000	0.016	2,175,728	5,738
CREDIT LYONNAIS SECS SINGAPORE	76,900	0.023	718,493	1,801
CREDIT SUISSE FIRST BOSTON (EUROPE)	1,450,295	0.028	22,079,088	41,097
CREDIT SUISSE FIRST BOSTON (EUROPE) LON	32,680	0.014	315,689	470
CREDIT SUISSE FIRST BOSTON CORP N Y	1,774,955	0.030	28,286,831	53,194
CREDIT SUISSE FIRST BOSTON HONG KONG	20,000	0.035	708,710	709
CREDIT SUISSE FIRST BOSTON LONDON	473,345	0.004	1,245,474	1,867
CREDIT SUISSE FIRST BOSTON NEW YORK	38,000	0.039	928,797	1,492
CREDIT SUISSE FIRST BOSTON SINGAPORE	70,000	0.022	523,990	1,571
CREDIT SUISSE FIRST BOSTON TOKYO	190,094	0.039	7,638,372	7,396

(Continued)

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF BROKER COMMISSIONS

### FOREIGN EQUITY TRADES

YEAR ENDED JUNE 30, 2001

Broker Name	No. of Shares	Commission Per Share	Total Dollar Amount of Trades	Commission
CREDIT SUISSE FIRST BOSTON WELLINGTON	105,031	0.005	352,554	530
CS FIRST BOSTON EQUITIES LONDON	13,910	0.073	671,582	1,009
CSFB & DONALDSON LUFKINNEW YORK	76,700	0.050	2,610,873	3,835
CSFB AUSTRALIA EQ LTD MELBOURNE	355,777	0.008	1,075,742	2,688
DAIWA SECS SB CAP MKTS CO LTD JAPAN	172,400	0.019	3,985,474	3,263
DAVY STOCKBROCKERS NY	545,829	0.016	4,931,075	8,529
DAVY STOCKBROKERS DUBLIN	108,550	0.022	897,861	2,404
DB CLEARING SVCS NEW YORK	166,700	0.040	4,058,063	6,695
DEUTSCHE BK CAP MKTS (ASIA) TOKYO	96,600	0.022	2,249,398	2,110
DEUTSCHE BK SEC INC NEW YORK	1,455,278	0.054	34,108,478	79,291
DEUTSCHE BK HONG KONG	64,500	0.017	416,255	1,081
DEUTSCHE MORGAN GRENFELL AUS LTD LONDON	1,909,975	0.031	33,538,167	59,663
DEUTSCHE MORGAN GRENFELL SEC SYDNEY	248,850	0.012	1,494,164	3,052
DLJ INTL SECS LONDON	29,225	0.056	1,096,549	1,642
DONALDSON LUFKIN & JENRETTE LONDON	90,850	0.006	362,629	545
DRESDNER KLEINWORT BENSON ASIA LTD TOKYO	296,264	0.010	3,261,441	2,843
DRESDNER KLEINWORT BENSON NEW YORK	485,900	0.044	9,497,267	21,593
EXANE PARIS	19,200	0.063	598,293	1,213
FIRST PACIFIC STOCKBROKERS MELBOURNE	953,800	0.008	3,789,799	7,846
G K GOH STOCKBROKERS PTE LTD SINGAPORE	28,000	0.027	253,899	764
GOLDMAN SACHS (ASIA) FINANCE HONG KONG	46,000	0.004	80,286	200
GOLDMAN SACHS & CO NY	17,400	0.050	381,744	870
GOLDMAN SACHS INTERNATIONAL NY	6,400	0.050	255,165	320
GOLDMAN SACHS INTL HONG KONG	155,000	0.012	765,176	1,919
GOLDMAN SACHS INTL LONDON	2,016,561	0.031	40,672,178	63,240
GOLDMAN SACHS JAPAN LTD TOKYO	575,731	0.016	7,942,984	8,981
HG ASIA CLEARING SVCS LTD KULALA LUMPER	121,000	0.012	537,570	1,448
HOARE GOVETT SECS LTD LONDON	278,080	0.013	2,430,109	3,637
HSBC SECS INC NEW YORK	543,047	0.062	18,610,289	33,839
HSBC SECS JAPAN LTD TOKYO	154,800	0.023	3,221,897	3,565
ING BANK LONDON	13,800	0.021	175,742	287
ING BARING SECS JAPAN LTD TOKYO	30,452	0.092	2,661,502	2,809
ING BARING SINGAPORE	132,000	0.028	1,276,826	3,655
INVESTMENT TECHNOLOGY GROUPS NEW YORK	6,700	0.020	88,790	134
ITG (EUROPE) LTD DUBLIN	1,000	0.023	23,067	23
J B WERE SON & SON LTD MELBOURNE	997,521	0.012	5,225,988	11,719
J P MORGAN SECS LONDON	1,279,224	0.020	14,256,216	25,207
JAMES CAPEL INC NY	50,380	0.070	1,762,876	3,519
JAMES CAPEL PACIFIC LTD TOKYO	550,730	0.010	4,915,845	5,388
JAMES CAPEL SECS NEW YORK	766,670	0.040	16,069,403	30,667
JAMES CAPEL LONDON	3,430,404	0.008	21,500,987	28,897
JARDINE FLEMING SECS TOKYO	497,200	0.010	4,635,785	5,193
JARDINE FLEMING HONG KONG	352,000	0.006	887,866	2,224

(Continued)

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF BROKER COMMISSIONS

### FOREIGN EQUITY TRADES

YEAR ENDED JUNE 30, 2001

Broker Name	No. of Shares	Commission Per Share	Total Dollar Amount of Trades	Commission
JARDINE FLEMING LONDON	53,050	0.017	363,139	910
JULIUS BAER SECS PARIS	2,400	0.091	108,396	217
KLEINWORT BENSON INC NY	54,800	0.178	3,881,142	9,727
KLEINWORT BENSON SECS LTD LONDON	2,557,363	0.017	26,089,158	44,020
LEHMAN BROS INC NEW YORK	681,960	0.035	11,998,464	23,937
LEHMAN BROS INTL LONDON	22,300	0.327	5,615,917	7,282
LEHMAN BROS JAPAN TOKYO	137,026	0.019	2,987,158	2,651
LEHMAN BROS SECS ASIA LTD HONG KONG	196,000	0.014	1,081,965	2,696
LEHMAN BROS LONDON	2,515,520	0.016	22,811,663	40,218
MACOUARIE INVT MGMT LTD SYDNEY	485,820	0.011	2,176,017	5,532
MERRILL LYNCH & CO HONG KONG	6,000	0.012	28,655	71
MERRILL LYNCH FAR EAST LTD HONG KONG	333,500	0.021	2,766,510	7,016
MERRILL LYNCH INTL (2L) LONDON	3,214,863	0.016	34,104,481	52,118
MERRILL LYNCH JAPAN INCJPN	745,554	0.015	11,571,212	10,931
MERRILL LYNCH P F & SMITH INC	39,000	0.039	1,504,721	1,505
MERRILL LYNCH PIERCE FENNER & SMITH NY	71,600	0.028	2,028,584	2,027
MERRILL LYNCH PIERCE FENNER SMITH INC	7,897,279	0.026	111,662,906	207,334
MERRILL LYNCH NY	328,400	0.039	5,375,856	12,831
MERRILL LYNCH SYDNEY	470,400	0.009	1,768,918	4,407
MERRION CAPITAL GROUP DUBLIN	15,900	0.028	178,876	442
METZLER NEDERLAND B V AMSTERDAM	62,400	0.080	2,513,523	5,017
MONTGOMERY SECURITIES SAN FRANCISCO	7,000	0.050	98,660	350
MORGAN GRENFELL ASIA & PARTNERS SECS	3,000	0.026	25,728	77
MORGAN GRENFELL LONDON	2,074,180	0.015	23,030,328	31,223
MORGAN J P SECS INC NEW YORK	103,000	0.022	1,870,304	2,247
MORGAN STANLEY & CO INC NY	7,146,471	0.007	26,499,110	52,243
MORGAN STANLEY ASIA LTD HONG KONG	2,346,600	0.009	8,173,798	20,703
MORGAN STANLEY INTL LONDON	2,048,761	0.034	46,708,709	70,440
MORGAN STANLEY JAPAN LTD TOKYO	338,520	0.028	9,000,201	9,411
MORGAN STANLEY SECS LONDON	2,481,426	0.008	11,014,114	19,308
MORGAN STANLEY SYDNEY	140,000	0.017	946,781	2,374
NCB STOCKBROKER DUBLIN	55,400	0.022	610,803	1,207
NESBITT BURNS TORONTO (T009NTDT)	294,300	0.030	6,805,263	8,787
NIKKO SECURITIES CO LTD TOKYO	83,000	0.010	959,152	861
NOMURA INTERNATIONAL LTD NEW YORK	504,000	0.008	2,727,811	3,814
NOMURA INTERNATIONAL HONG KONG	113,000	0.027	1,024,370	3,082
NOMURA SECURITIES CO TOKYO	304,700	0.015	6,329,956	4,428
NON-BROKER CORP ACTIONS	10	0.001	3	0
ORD MINNETT SYDNEY	505,120	0.016	3,429,257	8,095
POTTER WARBURG SEC**INVALID-DO NOT	51,700	0.011	235,640	591
RBC DOMINION SECS CORP NEW YORK	509,100	0.040	10,601,313	20,509
SALOMON BR UK EOITY LTD LONDON	1,660,450	0.002	1,692,878	2,943
SALOMON BROS ASIA LTD HONG KONG	2,019,500	0.003	2,694,194	6,729
SALOMON BROS INC NEW YORK	1,417,500	0.033	21,353,628	46,690
SALOMON BROS INTL LTD LONDON	2,546,421	0.015	22,347,974	36,990

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF BROKER COMMISSIONS FOREIGN EQUITY TRADES YEAR ENDED JUNE 30, 2001

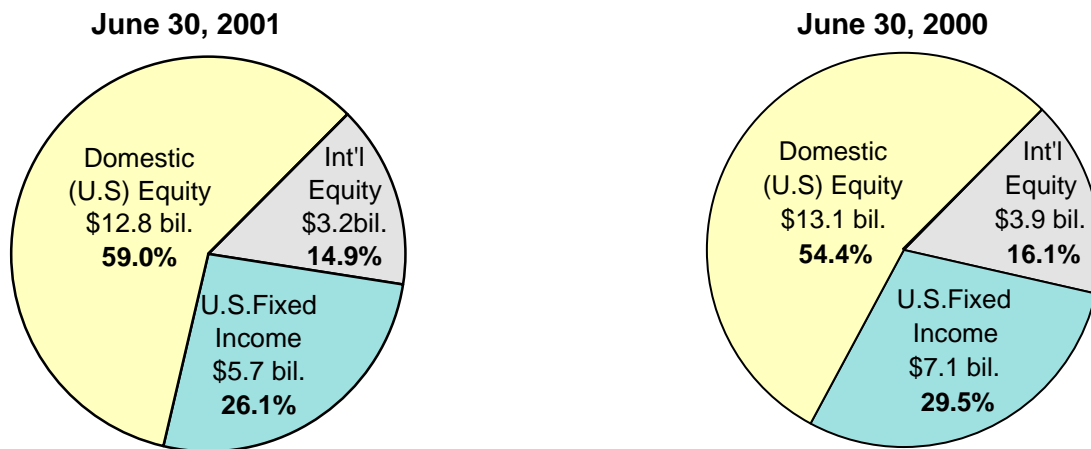
Broker Name	No. of Shares	Commission Per Share	Total Dollar Amount of Trades	Commission
SALOMON BROS TOKYO	1,193,334	0.012	13,459,083	14,157
SALOMON SMITH BARNEY INC NEW YORK	319,000	0.009	2,088,712	2,920
SALOMON SMITH BARNEY SEC SYDNEY	391,800	0.006	992,903	2,476
SALOMON SMITH BARNEY SYDNEY	124,880	0.019	957,002	2,387
SBC WARBURG AUSTRALIA EO LTD MELBOURNE	27,350	0.020	366,196	551
SBC WARBURG DILLON READ ASIA HONG KONG	921,000	0.012	4,300,904	11,161
SBC WARBURG SEC MELBOURNE	65,600	0.015	665,205	1,001
SBC WARBURG LONDON	1,830,506	0.031	31,924,225	56,570
SCOTIA MCLEOD (USA) INC NEW YORK	269,000	0.040	6,228,312	10,773
SG SECURITIES SINGAPORE	169,000	0.006	371,675	938
SG WARBURG SECURITIES LONDON	611,600	0.007	1,645,264	4,103
SKANDINAVISKA ENSKILDA BANKEN LONDON	106,300	0.078	4,148,884	8,292
SMITH BARNEY INC NEW YORK	84,500	0.044	1,597,575	3,689
SOCIETE GENERALE STRAUSS LONDON	34,900	0.085	1,486,788	2,962
STANDARD CHARTERED BANK HONG KONG	10,500	0.015	64,867	162
STANDARD CHARTERED BANK SINGAPORE	79,000	0.016	481,506	1,232
SVENSKA INTERNATIONAL LONDON	63,600	0.050	1,582,312	3,162
UBS AG LONDON	199,700	0.211	23,658,208	42,141
UBS BUNTING WARBURG INC TOR (T015BWIT)	23,100	0.039	172,818	901
UBS PAINWEBBER INC WEEHAWKEN	27,200	0.050	1,115,209	1,360
UBS SECURITIES LTD TOKYO	843,252	0.012	15,356,262	10,270
UBS WARBURG STAMFORD	56,700	0.062	1,419,967	3,541
UBS ZURICH	203	0.817	82,757	166
UNION BANK SWITZERLAND SECS LONDON	1,269,787	0.019	16,216,025	24,332
W I CARR SINGAPORE	29,000	0.021	204,544	611
WARBURG DILLON READ (ASIA) LTD H K	48,700	0.060	2,937,067	2,935
WARBURG DILLON READ (ASIA) LTD LONDON	27,000	0.033	350,854	879
WARBURG DILLON READ & ASSOC HONG KONG	108,604	0.048	5,169,792	5,170
WARBURG DILLON READ LLC LONDON	11,020	0.049	356,799	536
WARBURG DILLON READ LLC NEW YORK	1,769,905	0.009	11,120,754	15,993
WARBURG SECS HONG KONG	56	5.308	297,563	297
XEOD BOURSE PARIS	3,500	0.085	119,715	299
<b>TOTAL</b>	<b>95,637,628</b>		<b>\$ 1,114,821,814</b>	<b>\$ 1,924,564</b>

# ARIZONA STATE RETIREMENT SYSTEM

## INVESTMENT ALLOCATION YEAR ENDED JUNE 30, 2001

### PERFORMANCE ACCOUNTING/COMPUTATION STANDARDS

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



### Rates of Return

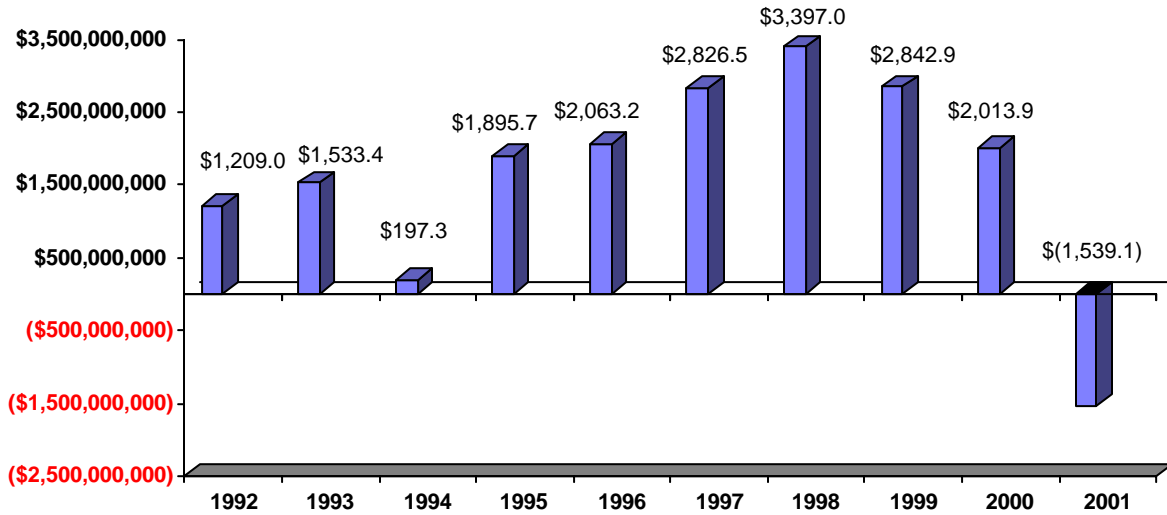
1977-78	1.18 %	1983-84	(5.20)%	1989-90	9.52 %	1995-96	16.70 %
1978-79	8.62 %	1984-85	32.10 %	1990-91	7.99 %	1996-97	20.60 %
1979-80	9.54 %	1985-86	31.50 %	1991-92	14.62 %	1997-98	21.30 %
1980-81	4.95 %	1986-87	11.80 %	1992-93	16.74 %	1998-99	16.80 %
1981-82	2.40 %	1987-88	3.10 %	1993-94	1.89 %	1999-00	10.00 %
1982-83	40.30 %	1988-89	14.33 %	1994-95	17.78 %	2000-01	(6.70)%

### Annualized

	1 Year	3 Years	5 Years	10 Years
ASRS	(6.7)	6.2	11.9	12.6
Domestic Equity	(11.3)	5.4	15.0	15.5
S&P 500	(14.8)	3.9	14.5	15.1
Domestic Fixed	11.3	6.1	7.5	8.9
Lehman Agg.	11.2	6.2	7.5	7.9
International Equity	(19.6)	5.6	7.1	8.5
EAFE	(23.3)	(0.9)	3.2	6.7

# ARIZONA STATE RETIREMENT SYSTEM

## NET INCOME FROM INVESTMENTS (In Millions) YEAR ENDED JUNE 30, 2001



\*Net income has been restated to reflect unrealized gains and losses

### Year Ended June 30, 2001 Ten Year Review of Investment Income (All figures rounded to nearest \$1,000)

Fiscal Year	Investment Income	Market Appreciation (Depreciation)	Investment Expenses	Net Income* from Investments
1991-92	\$ 495,404,000	\$ 722,863,000	\$ 9,277,000	\$ 1,208,990,000
1992-93	497,409,000	1,052,531,000	16,555,000	1,533,385,000
1993-94	477,384,000	(265,397,000)	14,703,000	197,284,000
1994-95	509,614,000	1,401,325,000	15,257,000	1,895,682,000
1995-96	523,566,000	1,562,575,000	22,990,000	2,063,151,000
1996-97	566,750,000	2,282,015,000	22,264,000	2,826,501,000
1997-98	325,329,000	3,094,012,000	22,377,000	3,396,964,000
1998-99	394,337,000	2,474,779,000	26,215,000	2,842,901,000
1999-00	416,594,000	1,625,595,000	28,273,000	2,013,916,000
2000-01	527,329,000	(2,038,932,000)	27,525,000	(1,539,128,000)





# ARIZONA STATE RETIREMENT SYSTEM

## COMPREHENSIVE ANNUAL FINANCIAL REPORT INDEX – ACTUARIAL SECTION

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## Actuarial Certification

### ARIZONA STATE RETIREMENT PLAN

#### Actuarial Certification Statement

This is to certify that Watson Wyatt Worldwide has prepared an actuarial valuation of the Arizona State Retirement Plan as of June 30, 2000.

Actuarial calculations have been made with respect to a total of 327,534 members, comprised of 183,924 active employees, 81,977 inactive members, and 58,038 retired members and beneficiaries, and 3,595 members on long term disability. In addition, there are 1,051 ASRS retirees receiving ad hoc benefits from Plan assets.

The actuarial calculations establish a total benefit cost of 3.84% of the annual compensation of employees. The total normal cost rate is 10.72% of compensation, and the required amortization payment determined in accordance with Section 38-737 is -6.88% compensation. Please note that ASRS statutes set a minimum contribution rate of 4.00% (2.00% for employees + 2.00% for employers). Since this is greater than the actuarially determined contribution rate, it is set as the certified contribution rate.

The actuarial costs of factors as of June 30, 2000 are as follows:

I.	Actuarial accrued liabilities			
	A. Liabilities due to members' benefits			
	1. Active members			
	a. Retirement benefits	\$7,021,410,100		
	b. Health Insurance premium supplement	421,580,400		
	c. Disability deferred retirement benefits	111,590,600		
	d. Pre-retirement death benefits	208,997,622		
	e. Withdrawal benefits	<u>356,907,824</u>		
	f. Total active members		\$8,120,486,546	
	2. Inactive members		610,069,499	
	3. Retired members and beneficiaries		7,003,591,600	
	4. Disabled members (deferred retirement)		151,641,600	
	5. Benefit increases for other-than-plan participants		<u>11,955,800</u>	
	6. Total present value of benefits			\$15,897,745,045
	B. Reserve for future PBI COLA's			<u>1,650,778,086</u>
	C. Total actuarial accrued liability			\$17,548,523,131
II.	Actuarial value of assets			\$21,126,877,491
III.	Unfunded actuarial accrued liability (Item I - Item II)			(\$3,578,354,360)
IV.	Amortizations of unfunded actuarial accrued liability (Per Section 38 - 737)			(\$405,493,447)
V.	Normal cost for the year			<u>631,666,459</u>
VI.	Total contributions for the year			\$226,173,012
VII.	Total covered payroll (projected to 2000/2001 plan year)			\$5,893,800,100
VIII.	Total contribution for fiscal years 2000/2001 and 2000/2001 as a percentage of covered payroll			
	A. Employee portion	401 (a) Account	401 (h) Account	Total
	B. Employer portion	2.00%	0.00%	2.00%
	C. Total	<u>1.94%</u>	<u>0.06%</u>	<u>2.00%</u>
		3.94%	0.06%	4.00%

The assumptions applied in the actuarial valuation were adopted November 15, 1996 by board action, to be effective for the valuations on and after June 30, 1996. These assumptions are as follows:

1. Investment yield – 8% per annum.

2. Salary increases

<u>Years of Service</u>	<u>Merit Component</u>	<u>Total Salary Increase</u>
1	5.00%	9.50%
2	4.00	8.50
3	2.50	7.00
4	1.80	6.30
5	1.40	5.90
6	1.25	5.75
7	1.00	5.50
8	0.80	5.30
9	0.75	5.25
10	0.50	5.00
11 to 19	0.25	4.75
20 or more	0.00	4.50

3. Rates of disability

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

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

<u>Age</u>	<u>Years of Service</u>				
	<u>Male Members</u>				
	<u>1</u>	<u>2</u>	<u>5</u>	<u>8</u>	<u>10+</u>
22	33.24%	25.31%	12.68%	6.60%	11.04%
32	18.87	14.03	8.76	4.80	4.67
42	16.93	9.82	6.24	3.80	2.01
52	16.18	8.54	4.43	3.10	1.38
62	19.05	10.18	3.73	2.50	1.10

Age	Years of Service				
	1	2	5	8	10+
22	26.86%	23.58%	18.08%	12.31%	18.04%
32	18.51	15.39	9.69	7.30	6.47
42	16.44	11.05	6.20	4.14	2.08
52	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	Years of Service				
	10-14	20	25	30	35+
50	5.00%	5.00%	5.00%	10.00%	12.50%
55	5.00	6.00	16.25	18.75	12.50
60	9.00	26.25	25.00	30.00	30.00
62	34.00	42.00	44.00	50.00	50.00
65	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 system, grading into post-retirement mortality rates at age 83.
8. Valuation assets – Market value less five 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 Retirement Plan and on the actuarial assumptions adopted by the Retirement Board.

April 13, 2001

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

Dear Retirement Board Members:

**Subject: Actuarial Valuation as of June 30, 2000**

We certify that the information contained in the 2000 actuarial valuation report is accurate and fairly presents the actuarial position of the Arizona State Retirement Plan (the Plan) as of June 30, 2000.

All calculations have been made 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 results presented comply with the requirements of the Arizona Statutes and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned actuary is an independent actuary. He is an Enrolled Actuary and a Member of the American Academy of Actuaries, and is experienced in performing valuations for large public retirement systems.

### *Actuarial Valuations*

The primary purpose of the valuation report is to determine the required employee 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 required by ASRS in connection with Governmental Accounting Standards Board Statement No. 25 (GASB No. 25), and it provides various summaries of the data.

Valuations are prepared annually, as of June 30<sup>th</sup> of each year, the last day of the Plan's plan year and ASRS' fiscal year.

### ***Financing objectives***

The member contribution rate and the employer contribution rate are calculated by the actuarial valuation. The calculated rates are applicable for the two plan years beginning July 1 of the calendar year that begins after the valuation date of even numbered years. The state and the employer contributions, when combined with the contributions made by members, are intended to provide for the normal cost and to amortize the Unfunded Actuarial Accrued Liability (UAAL).

### ***Progress toward realization of financing objectives***

Based on this actuarial valuation as of June 30, 2000, the matching employee and employer contribution rates are 2.00% for the fiscal years 001/2002 and 2002/2003. This rate does not include the contribution to the LTD program. This rate will provide for the normal cost and will amortize the UAAL over the required 15 years from June 30, 2000. Employees and employers contributed the recommended rate for the 1999/2000 fiscal year and are contributing the recommended rate for the 2000/2001 fiscal year. It is expected that they will continue to contribute the recommended rates as determined by the actuarial valuations. Therefore, all financing objectives are being realized.

Section 38-737 specifies that the unfunded actuarial accrued liability is amortized over a rolling 30-year period. This change is being phased-in by increasing the funding period for every even year valuation by 2 years. The amortization period for the 2000 valuation is 15 years and the amortization period for 2002 valuation will be 17 years. Beginning with the 2014 valuation the amortization period will be 30 years and will remain at that level.

### ***Benefit provisions***

The 2000 Legislature enacted the following benefit enhancements to the ASRS statutes:

- The age restriction (member must have been age 55) for eligibility for the Permanent Benefit Increase (PBI) was removed.

See Table 18 of this report for more details on the benefit provisions.

### ***Assumptions and methods***

The actuarial assumptions were adopted on November 15, 1996 by the Board, to be effective as of June 30, 1996, as recommended by the actuary. Further detail on the assumptions and methods may be found in Table 18 of this report and in the Experience Study report dated November 15, 1996. The assumptions are internally consistent and are reasonably based on the actual experience of the Plan. These assumptions are in full compliance with all parameters established by GASB No. 25.

*Data*

Member data for retired, active and inactive participants was supplied as of June 30, 2000, by the ASRS staff. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data. Asset information was supplied by the ASRS staff.

The results of this valuation were presented to the Board on November 17, 2000. This report provides the detail supporting that presentation. If desired, we are available to discuss this report with you at your convenience.

Sincerely,

W. Michael Carter, FSA, MAAA, EA  
Vice President

Lewis Ward  
Consultant

nlb

# ARIZONA STATE RETIREMENT PLAN

## GENERAL ACTUARIAL INFORMATION

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

As of June 30, 2000

<b>Non-Retired Members</b>	<b>State Employees</b>	<b>Teachers</b>	<b>Political Subdivision Employees</b>	<b>Total</b>
Number of members (active)	43,524	57,475	82,925	183,924
Average age	43.8	43.3	43.3	43.4
Average years of service	8.1	10.4	6.8	8.2
Average annual salary	\$31,380	\$35,356	\$25,924	\$30,163

As of June 30, 2001

<b>Retired Members</b>	<b>State Employees</b>	<b>Teachers</b>	<b>Political Subdivision Employees</b>	<b>Total</b>
Number of retirees	14,836	20,049	21,184	56,069
Average age	65.7	64.1	65.5	65.0
Average monthly benefit	\$1,075	\$1,482	\$920	\$1,162
Average years of service	16.7	22.0	15.6	18.2

Of all plan and system retirees at July 1, 2001, 47.2% received annuities of more than \$1,000 per month. Fewer than 2% receive less than 100 per month. All other annuity ranges were between 5.0 and 7.0%. Of the retirees 41.1% are less than 60 years old and 88.5 are less than 75.

One of the most critical factors bearing on retirement costs is that of changes in the average salary level of active participants. The following chart will show, for five fiscal years (fiscal year ending June 30, 2000), the average salary level for state employees, for teachers, and for political subdivision employees other than teachers, and the average for all groups combined.

	<b>1995-96</b>	<b>1996-97</b>	<b>1997-98</b>	<b>1998-99</b>	<b>1999-00</b>
State employees	\$ 26,909	\$ 27,463	\$ 29,027	\$ 30,316	\$ 31,380
Teachers	32,458	33,136	33,995	33,970	35,356
Political subdivision employees	23,685	23,699	24,050	25,257	25,924
All groups	27,368	27,695	28,457	29,329	30,163



# ARIZONA STATE RETIREMENT SYSTEM

## FINANCING OBJECTIVE

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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, 2000, the date of the most recent actuarial valuation, this funding level is 120.4 percent. When the present actuarial asset of \$21.127 billion are compared to the actuarial liabilities, the asset side of the actuarial balance sheet exceeds the amount of actuarial liabilities by the amount of \$3.578 billion.

A statutory change effective in 1998 requires that an actuarial valuation be performed only following even-numbered years, rather than annually. This biannual valuation recommends contribution rates for a two-year period. The contribution rates recommended in the valuation for the fiscal year ended June 30, 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 FY 2000-2001 is 10.72 percent and for FY 1999 – 2000 was 10.95 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 2000 and 2001 is 2.66 percent of pay (2.17 percent pension and health insurance, 0.49 percent LTD). This rate was determined by the 2000 valuation. Both employee and employer members contribute this rate.

Components of the normal cost are as follows:

Retirement benefits	9.17 %
Health insurance premium supplement	0.31
Survivor benefits	0.29
Withdrawals	0.68
Long-term disability benefit	<u>0.27</u>
Total, normal cost	10.72
Amortization of the UAAL	<u>(6.88)</u>
Required contribution rate for FY 2000/1999 Shared by employee and employer	3.84
Required contribution rate for FY 2001/2002 Shared by employee and employer	3.84 % <u>÷ 2</u>
Required matching contribution rate	<u>1.92 %</u>

(Due to minimum contribution rate established by ASRS statutes the actual contribution rate will be 2.00%)

## **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 2002 and fiscal year 2001 is 1.00 percent, shared equally by employees and employers. Of this amount, 0.66 percent funds current liabilities, and 0.32 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, 2001 and June 30, 2000, LTD assets were \$93.1, \$87.6 respectively. Benefit payments were 45.8 for fiscal year 2001 and 41.2 for fiscal year 2000.

# ARIZONA STATE RETIREMENT SYSTEM

## SUMMARY OF THE BENEFIT PROVISIONS OF THE ARIZONA STATE RETIREMENT PLAN – TABLE 18 ACTUARIAL VALUATION, JUNE 30, 2000

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

### A. RETIREMENT BENEFITS

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

- (a) an employee's 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 his years of total credited service equal eighty.

#### 2. *Monthly Life Annuity*

The product of 2.1 percent of the participant's best 36-month average compensation (in last 120 months) multiplied by his or her years of total credited service.

#### 3. *Normal Retirement Benefits*

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

#### 4. *Early Retirement*

Age 50 with 5 or more years of credited service.

#### 5. *Early Retirement Benefits*

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

### AGE AT DATE OF RETIREMENT

<u>YEARS OF SERVICE</u>	<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%	97%	100%
10 – 25	44%	49%	54%	59%	64%	69%	74%	79%	84%	89%	94%	97%	100%	100%	100%	100%
25 OR MORE	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.

## 1983 Group Annuity Mortality Table

Age	Rates of Mortality (Active)	
	Male Participants	Female Participants
20	.000365	.000189
25	.000444	.000253
30	.000572	.000342
35	.000785	.000476
40	.001128	.000665
45	.001932	.001010
50	.003513	.001647
55	.005660	.002541
60	.008384	.004241
65	.013868	.007064
70	.019296	.012385

### 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 or ten 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***

Applicable if death occurs prior to retirement.

2. ***Benefit***

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

(a) A lump sum equal to the sum of (i) and (ii):

(i) two times participant's contributions to the plan, with interest, and

(ii) the amount of the participant's employee and employer accounts, along with supplemental credits, if any, transferred from the 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 or ten years certain and life thereafter which is actuarially equivalent to the amount in (a).

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

Beneficiary receives a benefit in the form of a survivor annuity equal to the 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.

## **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:

- \$95 per month if the retiree is under age 65
- \$65 per month if the retiree is 65 or over

(b) with respect to premiums paid for the retiree's dependent coverage:

- \$80 per month if the dependent is under age 65
- \$50 per month if the dependent is 65 or over

(c) with respect to premiums paid for family coverage:

- \$175 per month for the member and one or more dependents not Medicare eligible
- \$115 per month for the member and one or more dependents Medicare eligible
- \$145 per month for the member not Medicare eligible and one or more dependents Medicare eligible
- \$145 per month for the member Medicare eligible and one or more dependents not Medicare eligible

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

Any unused supplement of the member or dependent may be used to pay the premiums of the other recipient.

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

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 percent. 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.

## **H. EMPLOYEE AND EMPLOYER CONTRIBUTIONS**

The contribution rate for the biennium beginning on July 1<sup>st</sup> 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. The member 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 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 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 ten years of service upon retirement from the plan shall be eligible for a minimum benefit. If the eligible retiree had at least ten years of service but less than fifteen years, his minimum benefit is \$350 a month. If the eligible retiree had at least fifteen years of service but less than twenty, his minimum benefit is \$500. If the eligible retiree had at least twenty years of service his minimum benefit is \$600. The minimum benefit shall be compared to the retiree's current benefit (including all ad hoc increases).

**3. *5 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 members period of unemployment.

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

Section 38-781.05 of the plan was amended so that the funding period for the plan would continue to be the period between 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 Section 38-737 Funding Period*

Section 38-737 was amended to change the funding period of the plan to a rolling 30-year period. The change is to be phased-in over the next nineteen years. If the Plan 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 entitled 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 percent***

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

2. *5 percent Ad Hoc Increase*

A 5 percent 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.

4. *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.

**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.

# ARIZONA STATE RETIREMENT SYSTEM

## ACTUARIAL VALUATION – JUNE 30, 2000

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### STATEMENT OF ACTUARIAL METHODS AND ASSUMPTIONS USED IN DETERMINING COST (ADOPTED BY BOARD ACTION ON NOVEMBER 15, 1996) 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.)

Age	Rates of Mortality (Active)	
	Male Participants	Female Participants
20	0.000365	0.001890
25	0.000444	0.000253
30	0.000572	0.000342
35	0.000785	0.000476
40	0.001128	0.000665
45	0.001932	0.001010
50	0.003513	0.001647
55	0.005660	0.002541
60	0.008384	0.004241
65	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 below.

## ARIZONA STATE RETIREMENT PLAN

### SCHEDULE OF PLAN ACTIVE MEMBER VALUATION DATA LAST 10 YEARS

Valuation As of June 30	Contributing Active Members			
	Number	Annual Payroll	Annual* Average Pay	% Increase in Average Pay
1991	134,751	\$ 3,452,982,100	\$ 25,625	3.5
1992	139,633	3,615,960,300	25,896	1.1
1993	144,477	3,748,182,900	25,943	0.2
1994	154,901	4,125,796,100	26,635	2.7
1995	155,444	4,432,113,900	28,513	7.1
1996	159,572	4,632,282,200	29,029	1.8
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

### SCHEDULE OF PLAN RETIREES ADDED TO AND REMOVED FROM ROLLS LAST 10 YEARS

Year Ended June 30	Added to Rolls	Removed From Rolls	Rolls End of Year	Average Annual Allowances	% Increase in Annual Allowances
1991	2,209	687	34,907	\$ 8,244	4.3
1992	2,303	720	36,490	8,436	2.3
1993	3,954	760	39,684	9,744	15.5
1994	2,280	920	41,044	10,244	5.1
1995	3,223	889	43,378	10,536	2.9
1996	3,845	1,248	45,975	11,040	4.8
1997	3,578		49,743	11,340	2.7
1998	3,353	1,179	51,917	11,784	3.9
1999	4,380	1,193	55,104	12,288	4.3
2000	4,822	1,888	58,038	13,500	9.9

# ARIZONA STATE RETIREMENT SYSTEM

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

Year Ended June 30	Aggregate Accrued Liabilities Plan	Actuarial Value of Net Plan Assets	Assets as a % of Accrued Liabilities Plan	Unfunded (over) Accrued Liabilities – Plan (UAL)	Active Member Payroll	UAL as a % of Active Member Payroll
1991	\$ 7,168,395,900	\$ 7,822,252,200	109	\$ (653,856,300)	\$ 3,491,210,600	(18.7)
1992	8,209,797,700	8,841,715,700	108	(631,918,000)	3,674,258,800	(17.2)
1993	8,921,137,100	9,770,364,000	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)

## RELATIONSHIP BETWEEN ACCRUED LIABILITIES AND ASSETS LAST 10 YEARS

Year Ended June 30	Aggregate Accrued Liabilities for				Portion of Accrued Liabilities Covered by Net Assets Available for Benefits		
	(1)	(2)	(3)	Net Assets Available for Benefits	(1)	(2)	(3)
	Active Member Contributions	Retirees and Beneficiaries	Active Members (Employer Financed Portion)				
1991	\$1,806,773,400	\$2,775,297,100	\$2,586,325,300	\$7,822,252,200	100%	100%	125.3%
1992	1,973,747,000	3,260,573,300	2,975,477,400	8,841,715,700	100	100	121.2
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
1999	2,679,011,640	6,454,089,795	6,988,798,093	18,760,959,854	100	100	137.8
2000	2,758,428,341	8,817,967,086	7,233,553,039	21,126,877,491	100	100	132.0

# ARIZONA STATE RETIREMENT SYSTEM

## 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
1991	\$ 3,453,000,000	\$ 133,364,200	3.82%	3.82%
1992	3,616,000,000	132,273,300	3.60%	3.60%
1993	3,748,000,000	135,644,900	3.59%	3.59%
1994	4,126,000,000	124,763,800	3.14%	4.09%
1995	4,432,000,000	158,559,900	3.75%	3.75%
1996	4,632,000,000	171,921,600 *	3.36%	3.95%
1997	4,836,000,000	172,602,900 *	3.20%	3.20%
1998	5,164,000,000	176,768,737 *	3.05%	3.05%
1999	5,488,000,000	179,086,642	2.85%	2.85%
2000	5,750,000,000	152,957,838	2.17%	2.17%

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

## ANALYSIS OF FINANCIAL EXPERIENCE FOR THE PLAN (millions)

Year Ended June 30	Unfunded Actuarial Liability (UAAL), Prior Year	Normal Cost for the Year	Contri- butions for the Year	Interest at 8% on UAAL	On Normal cost	On Contri- butions	Total	Expected UAAL	Actual UAAL	Gain (Loss) for the Year
1991	(551.60)	318.69	(267.19)	(44.13)	25.50	(10.69)	(29.32)	(529.42)	(653.86)	124.43
1992	(653.86)	352.49	(265.31)	(52.31)	28.20	(10.61)	(34.72)	(601.39)	(631.92)	30.52
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





# ARIZONA STATE RETIREMENT SYSTEM COMPREHENSIVE ANNUAL FINANCIAL REPORT

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# ARIZONA STATE RETIREMENT SYSTEM

## LIST OF EMPLOYERS

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### PUBLIC SCHOOLS

Agua Fria UHS Dist. 216  
Aguila Elem. Dist. 63  
Ajo Unified Dist. 15  
Alhambra Elem. Dist. 68  
Alpine Elem. Dist. 7  
Altar Valley Dist. 51  
Amphitheater Unified Dist. 10  
Antelope UHS Dist. 50  
Apache Elem. Dist. 42  
Apache Junction Unified Dist. 43  
Arlington Elem. Dist. 47  
Ash Creek Elem. Dist. 53  
Ash Fork Unified Dist. 31  
Avondale Elem. Dist. 44  
Bagdad Unified Dist. 20  
Balsz Elem. Dist. 31  
Beaver Creek Elem. Dist. 26  
Benson Elem. Dist. 9  
Benson UHS Dist. 9  
Bicentennial UHS Dist. 76  
Bisbee Unified Dist. 2  
Blue Elem. Dist. 22  
Blue Ridge Unified Dist. 32  
Bonita Elem. Dist. 16  
Bouse Elem. Dist. 26  
Bowie Unified Dist. 14  
Buckeye Elem. Dist. 33  
Buckeye UHS Dist. 201  
Bullhead City Elem. Dist. 15  
Camp Verde Unified Dist. 28  
Canon Elem. Dist. 50  
Cartwright Elem. Dist. 83  
Casa Grande Elem. Dist. 4  
Casa Grande UHS Dist. 82  
Catalina Foothills Unified Dist. 16  
Cave Creek Unified Dist. 93  
Cedar Unified Dist. 25  
Chandler Unified Dist. 80  
Chevelon Butte Elem. Dist. 5  
Chinle Unified Dist. 24  
Chino Valley Unified Dist. 51  
Chloride Elem. Dist. 11  
Clarkdale-Jerome Elem. Dist. 3  
Clifton Unified Dist. 3  
Cobre Valley Institute  
Cochise Elem. Dist. 26  
Coconino Assoc of Vocational & 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  
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. 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  
Gilbert Unified Dist. 41  
Glendale Elem. Dist. 40  
Glendale UHS Dist. 205  
Globe Unified Dist. 1  
Grand Canyon Unified Dist. 4  
Hackberry Elem. Dist. 3  
Hayden-Winkelman Unified Dist. 41  
Heber Overgaard USD No. 6  
Higley Elem. Dist. 60  
Hillside Elem. Dist. 35  
Holbrook Unified Dist. 3  
Humboldt Unified Dist. 22  
Hyder Elem. Dist. No. 16  
Indian Oasis-Baboquivari 40  
Isaac Elem. Dist. 5  
Joseph City Unified Dist. 2  
Kayenta Unified Dist. 27  
Kingman Elem. Dist. 4  
Kirkland Elem. Dist. 23  
Klondyke School Dist. 09  
Kyrene Elem. Dist. 28  
Lake Havasu Unified Dist. 1  
Laveen Elem. Dist. 59  
Liberty Elem. Dist. 25  
Litchfield Elem. Dist. 79

Littlefield Elem. Dist. 9  
 Littleton Elem. Dist. 65  
 Madison Elem. Dist. 38  
 Maine Cons. Elem. Dist. 10  
 Mammoth-San Manuel Unified Dist. 8  
 Marana Unified Dist. 6  
 Maricopa Unified Dist. 20  
 Mayer Unified Dist. 43  
 McNary Elem. Dist. 23  
 McNeal Elem. Dist. 55  
 Mesa Unified Dist. 4  
 Miami Unified Dist. 40  
 Mingus UHS Dist. 4  
 Mobile Elem. Dist. 86  
 Mohave Educational Svcs Coop  
 Mohave UHS Dist. 30  
 Mohave Valley Elem. Dist. 16  
 Mohawk Valley Elem. Dist. 17  
 Morenci Unified Dist. 18  
 Morristown Elem. Dist. 75  
 Murphy Elem. Dist. 21  
 Naco Elem. Dist. 23  
 Nadaburg Elem. Dist. 81  
 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  
 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  
 Young Elem. Dist. 5  
 Yuma County Accommodation School  
 Yucca Elem. Dist. 13  
 Yuma Elem. Dist. 1  
 Yuma UHS Dist. 70

## CHARTER SCHOOLS

Accelerated Learning Center Laboratory  
Acclaim Charter School  
Academy of Excellence, Inc.  
Academy of Tucson  
American Heritage Academy Chart. School  
Arizona Career Academy  
Arizona Montessori Charter School  
Arizona School for the Arts  
Arizona School of Fine Arts and Science  
Arizona Southwest Preparatory Academy  
AZ Agribusiness & Equine Center Chart. Sch.  
AZ Institue of Bus. and Technology (AIBT)  
Ball Charter School  
Basis Middle School  
Baurau Charter School  
Benjamin Franklin Charter School  
Benjamin Franklin School, Ltd.  
Burke Basic Charter School  
Career Development Inc.  
Career Pathways Academy  
Carmel Comm. Integrated Arts Chart. Sch.  
Casey Country Day Charter School  
Challenge School, Inc.  
Charter Foundation, Inc.  
Central City Academy  
Chester Newton Charter and Montessori Sch.  
CI Wilson Academy  
Country Gardens Charter School  
Desert Springs Academy Charter School  
Destiny Schools, Inc.  
Discovery Academy of St. Johns  
Discovery Plus Academy Charter School  
Dobson Academy  
Dragonfly 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  
Evergreen Charter School Corp  
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  
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.  
International Commerce Institute Inc.  
JWJ Academy  
Kingman Academy of Learning  
Lake Havasu Charter School  
Lake Powell Academy Inc.  
Laurent Clerc Elem. Charter School  
Learning Crossroads Basic Academy  
Learning Institute  
Mexicayotl Academy  
Mingus Mountain Academy  
Mingus Springs Charter School  
Mountain Rose Academy, Inc.  
Mountain Oak School Charter School, Inc.  
Multi-Dimensional Leteracy Corp  
New School for the Arts  
New West Charter School  
Noah Webster Basic School  
Northern Arizona Voc. Institute of Technology  
Northland Preparatory Academy  
Painted Pony Ranch Charter School  
Pathways Charter Schools, Inc  
Park View Middle School  
PCAE-Edge  
Phoenix School of Academic Excellence  
Pimeria Alta Learning Center  
Pine Forest Charter School  
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  
Sedona-Oakcreek Airport Authority, Inc  
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  
Stepping Stones Academy  
Sunway Management Charter School  
Telani Lake Elementary Sch Academy  
Telesis Center for Learning, Inc.  
Tolchi' Kooh Charter School Inc.  
Tri-City Prep High School

Triumphant Learning Center  
Valley Academies Inc.  
Ventana Academic School

Village Charter School  
Westwind Academy  
Young Scholars Academy Chart. Sch. Corp.

## COLLEGES

Arizona Western College  
Central Arizona College  
Cochise College  
Coconino County Community College  
Eastern Arizona College

Maricopa County Comm.  
Mohave Community College  
Northland Pioneer College  
Pima Community College  
Yavapai College

## CITIES AND TOWNS

City of Apache Junction  
City of Avondale  
City of Benson  
City of Bisbee  
City of Casa Grande  
City of Chandler  
City of Coolidge  
City of Cottonwood  
City of Douglas  
City of El Mirage  
City of Eloy  
City of Flagstaff  
City of Glendale  
City of Globe  
City of Goodyear  
City of Holbrook  
City of Kingman  
City of Lake Havasu  
City of Litchfield Park  
City of Mesa  
City of Nogales  
City of Peoria  
City of Prescott  
City of Safford  
City of San Luis  
City of Scottsdale  
City of Show Low  
City of Sierra Vista  
City of Somerton  
City of So. 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 Chino Valley  
Town of Clarkdale  
Town of Clifton  
Town of Florence  
Town of Fredonia  
Town of Gila Bend  
Town of Gilbert  
Town of Guadalupe  
Town of Hayden  
Town of Kearny  
Town of Miami  
Town of Paradise Valley  
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

## SPECIAL

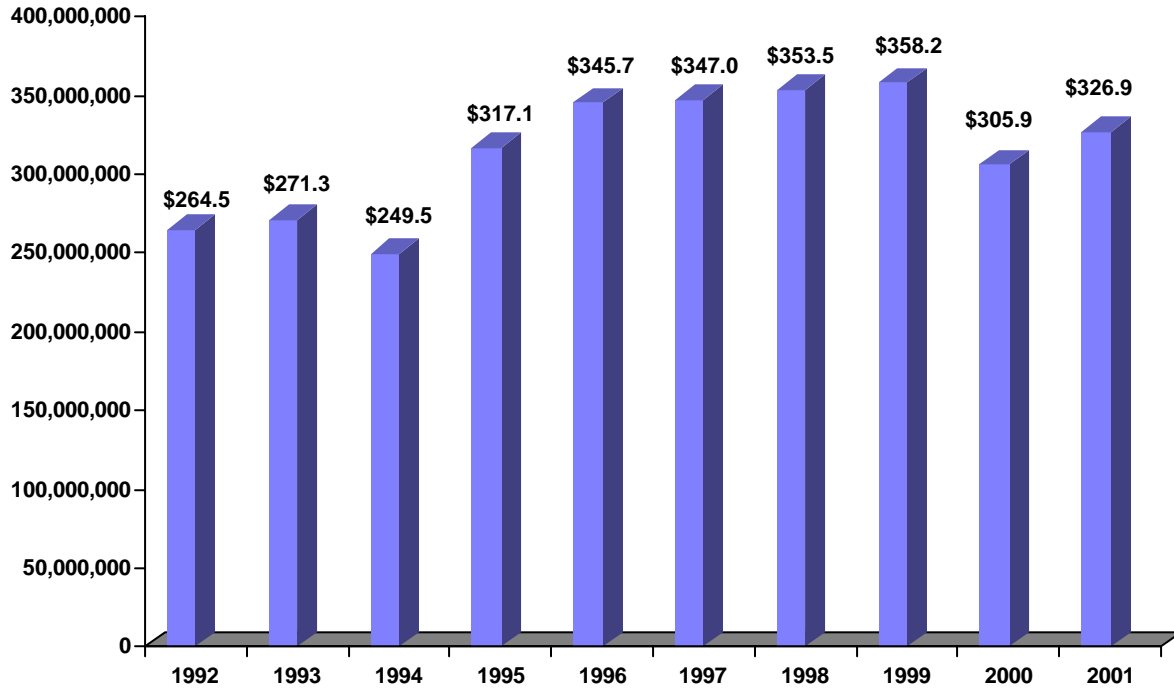
Apache Jct. Fire District  
Arizona Association of Counties  
Arizona City Sanitary District  
Arizona Counties Insurance Pool  
Arizona Interscholastic Association  
Black Canyon Water Improvement District  
Buckeye Water Conservation & Drainage Dist  
Bullhead City Fire District  
Central Arizona Project  
Central Heights Fire District  
Christopher Kohls Fire District  
City of Eloy Housing Authority  
City of Yuma Housing Authority  
Colorado River Sewage System  
Cornville-Page Springs Fire Dist  
County Supervisors Association of Arizona  
Drexel Heights Fire District  
Doney Park Fire Department  
El Frida Fire District  
Fire District of Sun City West  
Flagstaff Housing Authority  
Fort Mojave Mesa Fire Department  
Grand Canyon Airport Authority  
Golden Ranch Fire District  
Harquahala Valley Irrigation District  
Kino Community Hospital

Maricopa Integrated Health System  
Maricopa Water District  
Metropolitan Domestic Water Improve. Dist.  
New Magma Irrigation and Drainage District  
Northwest Fire District  
Picture Rock Fire District  
Pima Home Health  
Pinewood Sanitary District  
Posada del sol Health  
Puerco Valley Fire District  
Queen Valley Domestic Water Impr. Dist.  
Queen Valley Sanitary District  
Roosevelt Irrigation District  
San Carlos Irrigation & Drain  
State of Arizona  
Sun City Fire District  
Superstition Mtn Community Facilities Dist  
Tri-City Fire District  
Tucson Airport Authority  
Tusayan 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

# ARIZONA STATE RETIREMENT SYSTEM

## CONTRIBUTIONS RECEIVED (In Millions)

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## ACTUAL CONTRIBUTION RATES In Percentage of Payroll

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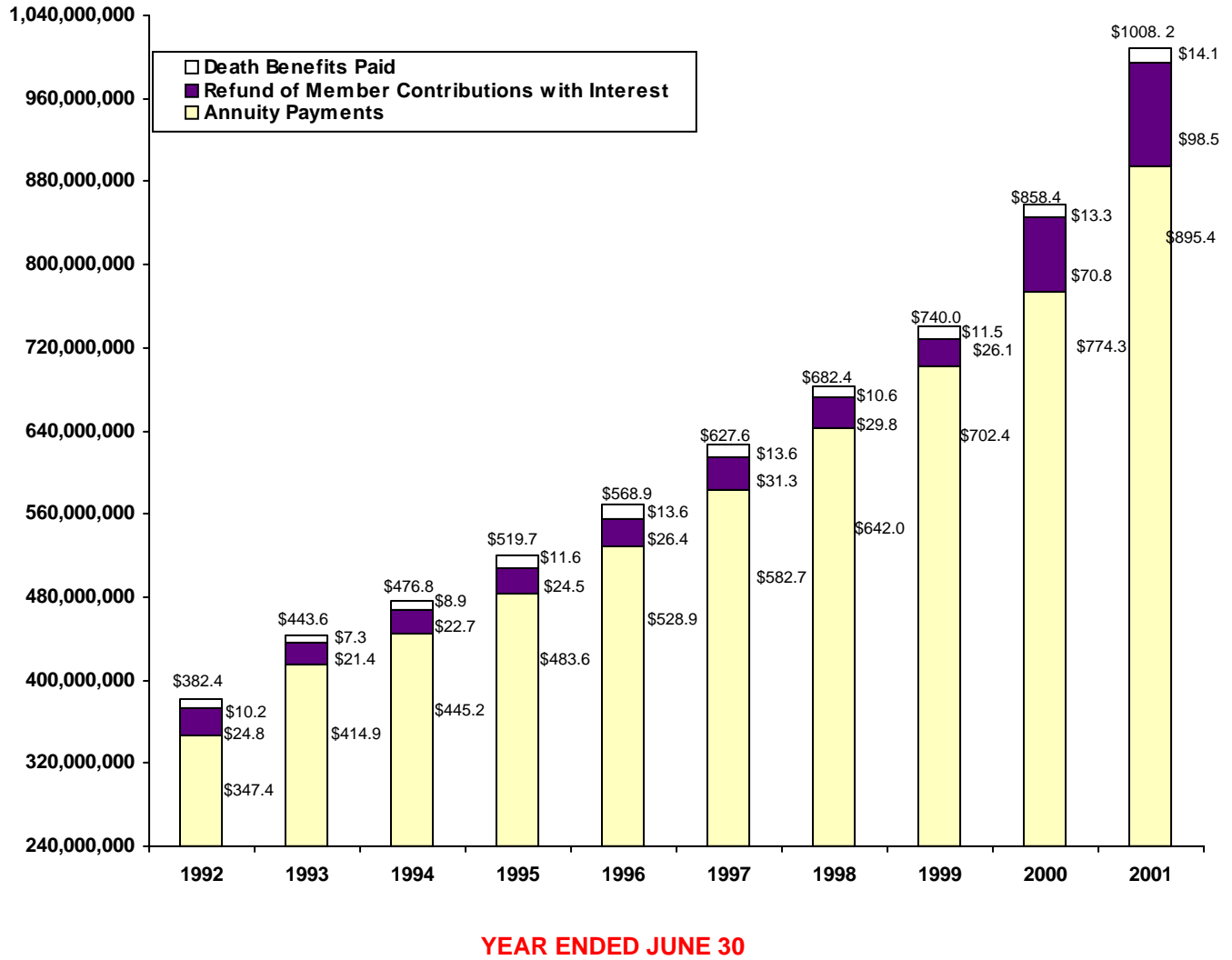
	1992	1993	1994	1995	1996*	1997*	1998*	1999*	2000*	2001*
Employer	3.60	3.59	3.14	3.75	3.85	3.69	3.54	3.34	2.66	2.66
Employee	3.60	3.59	3.14	3.75	3.85	3.69	3.54	3.34	2.66	2.66

The contribution rates include long-term disability contributions.

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

# ARIZONA STATE RETIREMENT SYSTEM

## TOTAL BENEFIT PAYMENTS (In Millions)



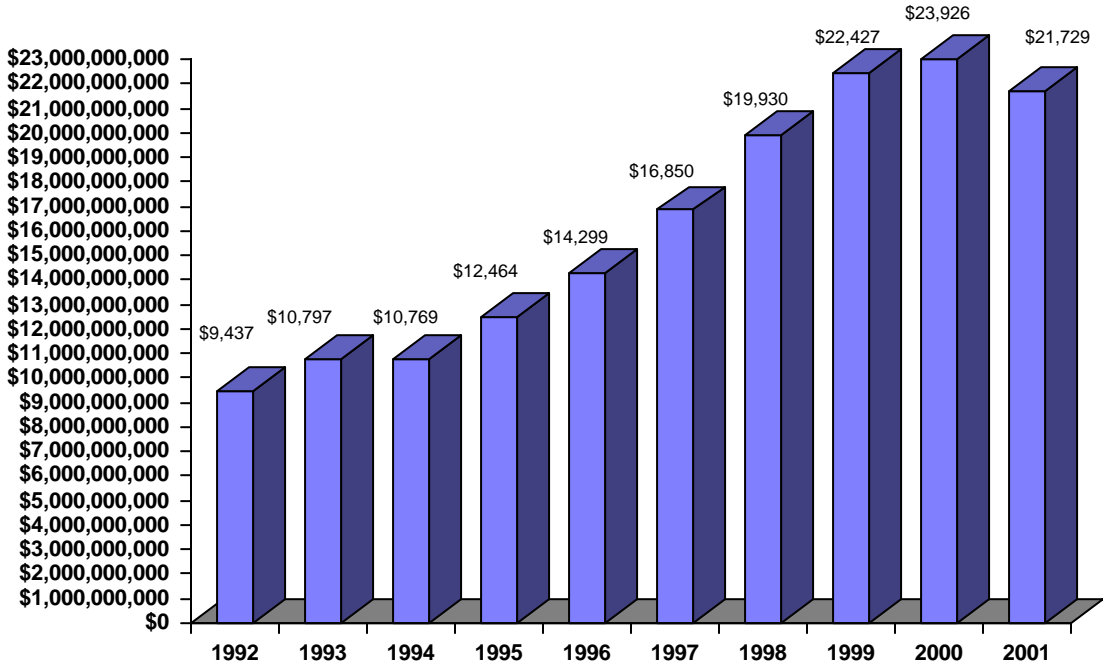
Total benefit payments have increased from \$382.4 million in fiscal year 1992 to \$1008.2 million in fiscal year 2001, an increase in excess of 163 percent over the nine-year period. This schedule does not include Social Security benefits.



# ARIZONA STATE RETIREMENT SYSTEM

## TOTAL RESERVES FOR BENEFITS\* At Market(In Millions)

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### YEAR ENDED JUNE 30

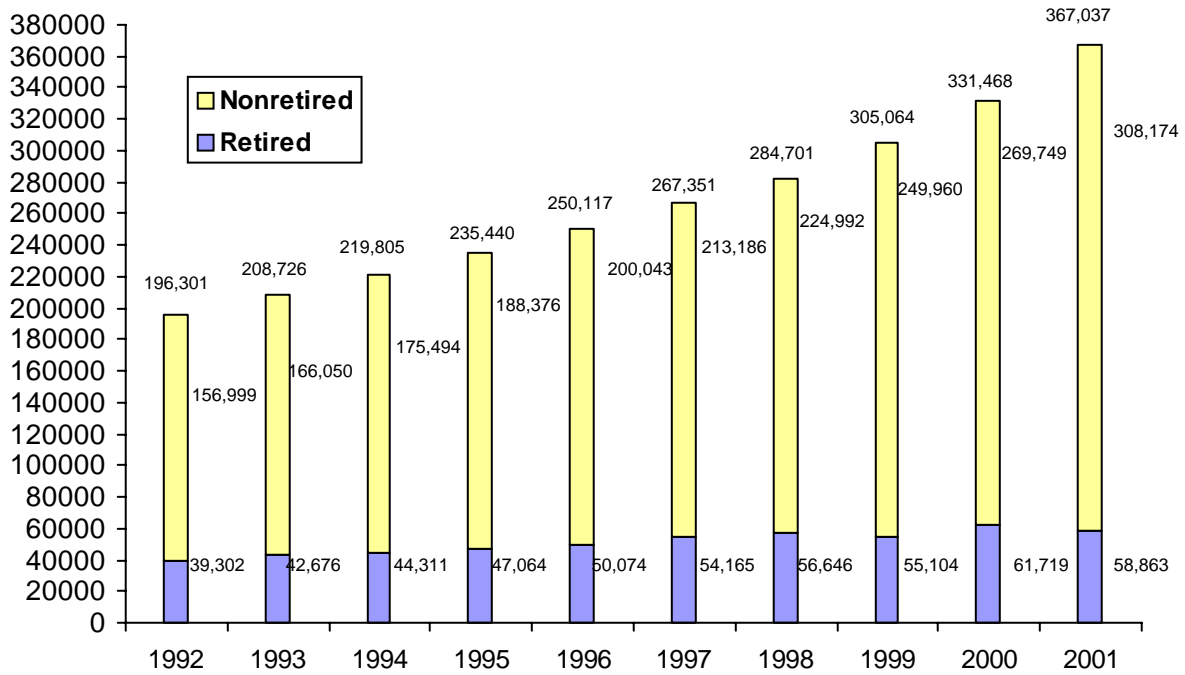
The increase in total reserves for benefits, nearly 130.2 percent in the past nine years, reflects the actuarial strength of the Retirement System.

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

# ARIZONA STATE RETIREMENT SYSTEM

## NONRETIRED & RETIRED MEMBERS

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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.

# ARIZONA STATE RETIREMENT SYSTEM

## TEN YEAR HISTORICAL DATA

### 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 Reimbursements and Other	Net Investment Income	Total Additions
1992	3.60%	N/A	100.00%	\$132,273,316	\$132,273,316	\$ 945,836	\$1,513,686,627	\$1,779,179,095
1993	3.59%	N/A	76.80%	135,644,868	135,644,868	6,870,755	2,037,437,881	2,315,593,372
1994	3.14%	N/A	100.00%	124,763,806	124,763,806	7,319,048	725,271,172	982,117,832
1995	3.75%	N/A	85.10%	158,559,931	158,559,931	9,429,152	2,409,804,569	2,736,353,583
1996***	3.36%	0.49%	100.00%	172,848,417	172,848,417	4,376,224	2,063,877,940	2,413,950,998
1997	3.20%	0.49%	100.00%	173,508,019	173,508,019	11,480,946	2,832,718,071	3,191,215,116
1998	3.05%	0.49%	100.00%	176,768,738	176,768,737	15,461,646	3,405,203,114	3,774,202,235
1999	2.85%	0.49%	100.00%	179,086,635	179,086,642	46,170,568	2,848,321,337	3,252,665,182
2000	2.17%	0.49%	****	152,957,449	152,957,838	35,347,830	2,035,312,005	2,376,575,122
2001	2.17%	49.00%	100.00%	163,441,724	163,441,640	39,534,937	1,528,690,829	(162,272,528)

\* 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 separate 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.

# ARIZONA STATE RETIREMENT SYSTEM

## TEN YEAR HISTORICAL DATA

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### EXPENSES BY TYPE

Fiscal Year	Benefit Payments	Administrative and Other	Total
1992	\$ 382,354,504	\$ 8,115,966	\$ 390,470,470
1993	443,628,202	6,210,761	449,838,963
1994	476,768,678	5,521,389	482,290,067
1995	519,667,116	5,970,049	525,637,165
1996	568,901,122	8,244,791	577,145,913
1997	627,590,584	12,307,628	639,898,212
1998	682,336,368	12,541,090	694,877,458
1999	739,978,931	15,352,673	755,331,604
2000	858,307,881	19,743,695	878,051,576
2001	1,008,150,423	24,639,599	1,032,790,022

### BENEFIT EXPENSES BY TYPE

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Fiscal Year	Retirement Benefits	Death Benefits	Long-Term Disability	Health Benefit Supplement	Refunds of Contributions	Total
1992	\$ 347,373,283	\$ 10,168,325			\$ 24,812,896	\$ 382,354,504
1993	414,878,522	7,304,695			21,444,985	443,628,202
1994	445,185,700	8,932,681			22,650,297	476,768,678
1995	483,573,463	11,577,469			24,516,184	519,667,116
1996	480,697,236	13,593,283	\$ 20,280,929	\$ 27,953,281	26,376,393	568,901,122
1997	522,524,936	13,582,730	30,051,668	30,148,793	31,282,457	627,590,584
1998	574,229,820	10,557,739	35,112,054	32,667,709	29,769,046	682,336,368
1999	627,612,050	11,484,518	39,839,055	34,935,156	26,108,152	739,978,931
2000	695,425,997	13,255,861	41,220,028	37,651,498	70,754,497	858,307,881
2001	809,133,178	14,133,500	45,848,134	40,500,337	98,535,274	1,008,150,423

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

# ARIZONA STATE RETIREMENT SYSTEM

## SCHEDULE OF AVERAGE BENEFIT PAYMENTS FOR RETIREES UNDER THE PLAN\*

	YEARS OF CREDITED SERVICE										TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45+	
Fiscal year 1991											
Average monthly benefit	\$ 128	\$ 208	\$ 372	\$ 577	\$ 817	\$ 1,259	\$ 1,610	\$ 1,476	\$ 1,086	\$ 966	\$ 687
Number of retirees	587	5,932	7,851	6,747	5,624	4,438	2,558	790	322	57	34,906
<b>AVERAGE CREDITED SERVICE</b>											17.9
Fiscal year 1992											
Average monthly benefit	\$ 124	\$ 207	\$ 377	\$ 588	\$ 839	\$ 1,292	\$ 1,650	\$ 1,521	\$ 1,112	\$ 936	\$ 703
Number of retirees	646	6,220	8,215	6,952	5,888	4,687	2,718	800	308	56	36,490
<b>AVERAGE CREDITED SERVICE</b>											17.9
Fiscal year 1993											
Average monthly benefit	\$ 125	\$ 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
<b>AVERAGE CREDITED SERVICE</b>											18.0
Fiscal year 1994											
Average monthly benefit	\$ 126	\$ 229	\$ 445	\$ 701	\$ 1,032	\$ 1,555	\$ 1,980	\$ 1,880	\$ 1,335	\$ 1,105	\$ 852
Number of retirees	798	6,906	9,000	7,602	6,881	5,615	3,099	829	277	37	41,044
<b>AVERAGE CREDITED SERVICE</b>											17.9
Fiscal year 1995											
Average monthly benefit	\$ 125	\$ 232	\$ 454	\$ 717	\$ 1,069	\$ 1,598	\$ 2,034	\$ 2,004	\$ 1,399	\$ 1,135	\$ 878
Number of retirees	855	7,345	9,444	7,965	7,274	6,065	3,287	853	260	30	43,378
<b>AVERAGE CREDITED SERVICE</b>											17.9
Fiscal year 1996											
Average monthly benefit	\$ 123	\$ 239	\$ 470	\$ 741	\$ 1,118	\$ 1,669	\$ 2,119	\$ 2,125	\$ 1,506	\$ 1,230	\$ 920
Number of retirees	918	7,781	9,849	8,334	7,791	6,654	3,498	884	240	26	45,975
<b>AVERAGE CREDITED SERVICE</b>											17.9
Fiscal year 1997											
Average monthly benefit	\$ 123	\$ 244	\$ 481	\$ 759	\$ 1,151	\$ 1,719	\$ 2,172	\$ 2,197	\$ 1,613	\$ 1,270	\$ 945
Number of retirees	1,034	8,446	10,611	8,967	8,421	7,296	3,756	947	240	25	49,743
<b>AVERAGE CREDITED SERVICE</b>											18.0
Fiscal year 1998											
Average monthly benefit	\$ 122	\$ 254	\$ 499	\$ 789	\$ 1,196	\$ 1,785	\$ 2,248	\$ 2,318	\$ 1,749	\$ 1,565	\$ 982
Number of retirees	1,149	8,788	11,050	9,305	8,786	7,718	3,908	965	226	22	51,917
<b>AVERAGE CREDITED SERVICE</b>											18.0
Fiscal year 1999											
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	9,180	11,581	9,653	9,393	8,475	4,294	1,039	217	21	55,104
<b>AVERAGE CREDITED SERVICE</b>											18.2
Fiscal year 2000											
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
<b>AVERAGE CREDITED SERVICE</b>											17.6

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

# ARIZONA STATE RETIREMENT SYSTEM

## RETIREMENT BENEFIT OPTIONS

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### **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.

