UTAH RETIREMENT SYSTEMS ACTUARIAL VALUATION REPORT FOR THE YEAR BEGINNING JANUARY 1, 2007

5605 N. MacArthur Blvd. Suite 870 Irving, TX 75038-2631

August 9, 2007

Utah State Retirement Board 540 East 200 South Salt Lake City, UT 84102

Dear Members of the Board:

#### Subject: Actuarial Valuation as of January 1, 2007

This report describes the current actuarial condition of the Utah Retirement Systems (URS), determines the calculated employer contribution rates, and analyzes changes in these contribution rates. Valuations are prepared annually, as of January 1, the first day of the URS plan year.

Under URS statutes, the Board of Trustees must certify employer contribution rates annually. These rates are determined actuarially, based on the Board's funding policy, although, as discussed below, under certain circumstances the Board may choose not to reduce the current rate if it is greater than the actuarially calculated rate. Contribution rates determined by a given actuarial valuation become effective eighteen months after the valuation date. I.e., the rates determined by this January 1, 2007 actuarial valuation will be used by the Board when certifying the employer contribution rates for the year beginning July 1, 2008 and ending June 30, 2009. If new legislation is enacted between the valuation date and the date the contribution rates become effective, the Board may adjust the calculated rates before certifying them, in order to reflect this new legislation. Such adjustments are based on information supplied by the actuary.

#### FINANCING OBJECTIVES AND FUNDING POLICY

In setting contribution rates, the Board's principal objectives have been:

- To set rates so that the unfunded actuarial accrued liability (UAAL) will be amortized over a 20-year period from the current valuation date
- To set rates so that they remain relatively level over time.

To accomplish this, the Board's funding policy requires that the employer contribution rate be at least equal to the sum of the employer normal cost rate (which pays the current year's cost) and an amortization rate which results in the amortization of the UAAL over twenty years in installments which increase at the assumed rate of growth in payroll for URS. The current assumed rate of growth in payroll for URS is 4.00%.

Utah State Retirement Board August 9, 2007 Page 2

The Board uses an open 20-year amortization period. In other words, a 20-year amortization period is used in each valuation, rather than having the period decrease to 19, 18, etc.

Under this policy, the objective of maintaining a relatively level contribution rate over time is achieved in normal conditions such as consistent financial markets.

In 2004, the Utah Legislature added Section 49-11-301(5) to the Utah Code. This section allows the Board to set the employer contribution rate at the prior year's rate, if the rate otherwise would decrease and if the funded ratio is less than 110%. In such a case, the rate set by the Board would be higher than the actuarially determined contribution rate. The purpose of this legislation is to enhance the Board's ability to maintain more-level contribution rates while targeting a 100% - 110% funded level. The Board has followed this policy since 2004, so the recommended contribution rate may be greater than the actuarially determined rate.

#### **PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVES**

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches at least 100%.

For all systems combined, the funded ratio increased from 93.2% to 95.8%. Most of the individual funds have ratios over 90%, and only the 3% Substantial Substitute Fund, the Salt Lake City Noncontributory Public Safety Fund, and the Logan Noncontributory Public Safety Fund have funded ratios less than 80%. It should be pointed out that the funded ratio for all systems combined was 76.9% in 1990. Significant progress has been made over the last seventeen years, even though a number of benefit increases have been granted during that time, and even though the 3% substantial substitute was added as a URS liability. If market value had been used in the calculation instead of actuarial value, the aggregate funded ratio for all funds combined would have been 105.0%, compared to 99.1% in the prior year and 77.3% just four years ago.

#### **BENEFIT PROVISIONS**

The benefit provisions reflected in this valuation are those which were in effect on January 1, 2007, or which were adopted by the end of the 2007 legislative session and are effective on or before July 1, 2008.

No significant pieces of legislation impacting the benefit provisions of URS were enacted during the 2007 legislative session.

One item affecting comparability of this report with prior reports concerns the "Group Insurance" death benefit. This is a lump-sum death benefit provided to active members of the Contributory and Noncontributory Public Employees Retirement Systems. The benefit is equal to 75% of Utah State Retirement Board August 9, 2007 Page 3

salary during the last year of employment. Some former employees, such as employees on disability, are also eligible for this benefit.

For the fiscal year ending June 30, 2007, employers paid 0.16% of pay to cover the cost of this benefit. In previous valuations, the cost for the benefit was included in the contribution rates shown in the URS actuarial valuation reports. The contribution for this benefit was contributed to URS as part of the retirement contribution, but it was immediately transferred to the Public Employees Health Program (PEHP), which is responsible for paying the benefit.

Beginning with this valuation, the cost for the Group Insurance benefit will be developed by PEHP's actuary, rather than as part of the valuation of URS. Therefore, the cost for the Group Insurance benefit will no longer be shown in the URS valuation reports. We have revised the contribution rates shown for the fiscal year ending June 30, 2008, which are based on the January 1, 2006 actuarial valuation, to exclude this charge, so that the rates shown for the previous and current valuations will be comparable.

#### ASSUMPTIONS AND METHODS

The Board, in consultation with the actuary, sets the actuarial assumptions and methods used in the valuation. Current Board policy is to perform an experience study every three years. In connection with the appropriate valuation, the actuary conducts a thorough review of plan experience for the preceding five years, and then makes recommendations to the Board.

The current actuarial assumptions and methods are the same as used for the prior valuation. These assumptions and methods were adopted effective January 1, 2005. The next experience analysis is scheduled for 2008.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods.

It is our opinion that the recommended assumptions are internally consistent and are reasonably based on past and anticipated future experience of the System. The actuarial assumptions and methods used in this report comply with the parameters for disclosure that appear in GASB 25.

#### DATA

Member data for retired, active and inactive members was supplied as of December 31, 2006 by the URS staff. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data. The staff also supplied asset information as of December 31, 2006.

Utah State Retirement Board August 9, 2007 Page 4

#### CERTIFICATION

We certify that the information presented herein is accurate and fairly portrays the actuarial position of URS as of January 1, 2007.

All of our work conforms with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of Utah state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board.

The undersigned are independent actuaries and consultants. Mr. Conradi is an Enrolled Actuary and a Member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries. Both are experienced in performing valuations for large public retirement systems.

Sincerely,

ewis Ward

Lewis Ward Consultant

J. Christian Comoli

J. Christian Conradi, ASA, EA, MAAA Senior Consultant

 $3012 2007 Val 2007_val.doc$ 

#### Page

#### **COVER LETTER**

SECTION I	EXECUTIVE SUMMARY							
	SUMMARY			1				
SECTION II	DISCUSSION							
	DETERMINATIO	N OF CA	ALCULATED CONTRIBUTION RATES	6				
	FINANCIAL DAT	'A AND	Experience	9				
	MEMBER DATA			11				
	BENEFIT PROVIS	SIONS		12				
	ACTUARIAL ME	THODS	AND ASSUMPTIONS	13				
	GASB 25 AND H	FUNDIN	IG PROGRESS	14				
	FIREFIGHTERS A	ND JUE	DGES OFFSETS	15				
	3% SUBSTANTIA	AL SUB	STITUTE	16				
	<b>RESTORATION C</b>	F PURC	CHASING POWER (ROPP)	17				
	PUBLIC SAFETY	Retiri	EES' COST-OF-LIVING INCREASES RESTRICTED ACCOUNT	18				
SECTION III	SUPPORTING I	EXHIB	ITS					
	EXHIBIT 1(A)		COMPARISON OF CALCULATED CONTRIBUTION RATES	20				
	EXHIBIT 1(B)	_	COMPARISON OF CALCULATED CONTRIBUTION RATES & ADOPTED RATES	21				
	EXHIBIT 2(A)		COMPONENTS OF CALCULATED CONTRIBUTION RATES	22				
	EXHIBIT 2(B)	—	DETERMINATION OF CONTRIBUTION RATE OFFSETS FOR FIREFIGHTERS AND JUDGES	23				
	EXHIBIT 2(C)	—	EFFECT OF OFFSETS ON RECOMMENDED (HB 83) EMPLOYER RATES AND MEMBER RATES	24				
	EXHIBIT 3(A)		SCHEDULE OF FUNDING PROCESS	25				
	EXHIBIT 3(B)		COMPARISON OF FUNDED RATIOS	26				
	EXHIBIT 4(A)	_	ANALYSIS OF CHANGES IN CALCULATED CONTRIBUTION					
			RATES	27				
	EXHIBIT 4(B)	—	ANALYSIS OF FINANCIAL EXPERIENCE	28				
	EXHIBIT 5(A)	—	ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS BY FUNDED AND STATUS	29				
	EXHIBIT 5(B)	—	ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS					
	$\mathbf{E}_{\mathbf{M}}$		DETAILS FOR RETIREES AND BENEFICIARIES, BY STATUS	30				
	EXHIBIT 5(C)	_	ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS DETAILS FOR INACTIVE MEMBERS BY STATUS	31				
	EXHIBIT 5(D)	_	ACTUARIAL PRESENT VALUE OF FUTURE BENETITS					
	. ,		DETAILS FOR ACTIVE MEMBERS, BY BENEFIT	32				
	EXHIBIT 5(E)	—	ACTUARIAL PRESENT VALUE OF FUTURE BENETIFTS DETAILS FOR MEMBERS RECEIVING ENEFITS, BY BENEFITS	33				

#### SECTION III SUPPORTING EXHIBITS (CONTINUED)

EXHIBIT 6(A)	— NORMAL COST	34
EXHIBIT 6(B)	— NET EMPLOYER NORMAL COST	35
EXHIBIT 7(A)	— DETERMINATION OF ACTUARIAL ACCRUED LIABILITY	36
EXHIBIT 7(B)	<ul> <li>ACTUARIAL ACCRUED LIABILITY</li> <li>DETAILS OF MEMBER AND EMPLOYER FINANCING</li> </ul>	37
EXHIBIT 8	— NUMBER OF MEMBERS	38
EXHIBIT 9	— ACTIVE MEMBERSHIP STATISTICS	39
EXHIBIT 10	— RETIRED MEMBER STATISTICS	40
EXHIBIT 11(A)	<ul> <li>MARKET VALUE OF ASSETS</li> <li>(ALL RETIREMENT SYSTEMS COMBINED)</li> </ul>	41
EXHIBIT 11(B)	— RECONCILIATION OF MARKET VALUE OF ASSETS (MVA)	42
EXHIBIT 12(A)	— INVESTMENT RETURN RATES FOR PRIOR YEAR	43
EXHIBIT 12(B)	— SUMMARY OF INVESTMENT RETURN RATES	44
EXHIBIT 13	<ul> <li>CALCULATION OF ACTUARIAL VALUE OF ASSETS (ALL RETIREMENT SYSTEMS COMBINED)</li> </ul>	45
Ехнівіт 14	— TRANSFER ADJUSTMENTS TO ASSET VALUES	46
EXHIBIT 15(A)	— CONTRIBUTION RATE FOR 3% SUBSTANTIAL SUBSTITUTE	47
Exhibit 15(b) Exhibit 16(A)	<ul> <li>LIABILITIES FOR 3% SUBSTANTIAL SUBSTITUTE</li> <li>HISTORICAL SUMMARY OF STATISTICAL DATA -</li> <li>PUBLIC EMPLOYEES RETIREMENT SYSTEM</li> </ul>	48
EXHIBIT 16(B)	(CONTRIBUTORY) — HISTORICAL SUMMARY OF STATISTICAL DATA - PUBLIC EMPLOYEES RETIREMENT SYSTEM	49
	(NONCONTRIBUTORY)	50
EXHIBIT 16(C)	<ul> <li>— HISTORICAL SUMMARY OF STATISTICAL DATA -</li> <li>PUBLIC SAFETY RETIREMENT SYSTEM (CONTRIBUTORY)</li> </ul>	51
EXHIBIT 16(D)	<ul> <li>— HISTORICAL SUMMARY OF STATISTICAL DATA -</li> <li>PUBLIC SAFETY RETIREMENT SYSTEM (NONCONTRIBUTORY)</li> </ul>	50
EXHIBIT 16(E)	— HISTORICAL SUMMARY OF STATISTICAL DATA - FIREFIGHTERS RETIREMENT SYSTEM	52
EXHIBIT 16(F)	— HISTORICAL SUMMARY OF STATISTICAL DATA - JUDGES RETIREMENT SYSTEM	53
EXHIBIT 16(G)	<ul> <li>— HISTORICAL SUMMARY OF STATISTICAL DATA - LEGISLATIVE AND GOVERNORS RETIREMENT SYSTEM</li> </ul>	54 55

APPENDIX 1 STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

APPENDIX 2	SUMMARY OF PRINCIPAL PLAN PROVISIONS					
	Public Employees Retirement Systems (Contributory and Noncontributory)	82				
	PUBLIC SAFETY RETIREMENT SYSTEMS (CONTRIBUTORY AND NONCONTRIBUTORY)	86				
	FIREFIGHTERS RETIREMENT SYSTEM	91				
	JUDGES RETIREMENT SYSTEM	95				
	GOVERNORS AND LEGISLATIVE PENSION PLAN	98				

**SECTION I** EXECUTIVE SUMMARY

#### **EXECUTIVE SUMMARY AND CONTRIBUTION REQUIREMENTS**

- Exhibit 1(a) shows the new recommended contribution rates, and compares these to the rates certified for FY 2008 based on the last valuation
  - Rates include funding for the 3% substantial substitute benefit, where applicable
  - Rates do not include the 1.50% 401(k) contribution
  - Rates shown for both for the Public Employees Contributory and Noncontributory Retirement Systems for both years exclude the contribution for the group insurance death benefit. Funding for this benefit is the responsibility of PEHP. This accounts for a 0.16% difference between the rates quoted in the last valuation report and the rates quoted for the same year in this report.
  - Offsets for Firefighters System and Judges System are shown
  - Rates shown on this table are the recommended contribution rates, not the actuarially determined rates. Under Utah Code §49-11-301(5), the Board may keep the contribution rate at the prior year's level, in order to reach and maintain a 110% funded ratio.
  - Rates shown on Exhibit 1(a), column 6 are for the twelve-month period beginning July 1, 2008 (FY 2009)
  - Rates may need to be adjusted for the effect of 2008 legislation, if material
- Because of §49-11-301(5), the recommended employer contribution rates for all funds were unchanged
- Exhibit 1(b) shows the development of the recommended rates under §49-11-301(5). The recommended rates are the larger of the actuarially calculated rates from the current valuation (Col. 2) and the rates certified for FY 2008 (Col. 3)
  - §49-11-301(5) permits the Board to set the contribution rate at the prior year's level if the actuarially calculated rate would be less and the funded ratio is less than 110%
  - The policy is applied to the gross rates for the Firefighter funds and the Judges, i.e., before application of the offsets for the fire insurance premium tax receipts and the court fees
  - Only two funds have a funded ratio greater than 110%: Firefighters Division B and the Governors and Legislative Pension Plan. For the latter plan no contributions are required.
  - For Firefighters' Division B, the prior year's rate, 4.09% before recognition of the offset for the fire insurance premium tax receipts, is less than the employer normal cost (7.30%), offset by credit based on the amount of overfunding in excess of 10% of the actuarial accrued liability (-0.33%). Therefore, we are recommending that the 4.09% rate be retained as the recommended rate before applying the offset for the fire insurance premium tax receipts, since this rate is less than the rate required to "maintain" the 110% funded ratio. In any case, the offset reduces this rate to zero.

- This policy is separately applied to the contribution rate for the 3% substantial substitute that is included with the contribution rates for the State and School funds, the State Public Safety funds and the Judges
- Exhibit 2(a) shows the components of the actuarially determined contribution rate, and Exhibit 4(a) reconciles the actuarially calculated rates determined by this valuation and the previous valuation
  - For all funds, the actuarial contribution rate decreased
  - Recognized gains from investments were the dominant reason
- There were no material changes to the benefit provisions
- There were no changes in assumptions or methods.
- Amortization payments are based on:
  - 20-year funding period
  - Contributions determined as level percentage of pay
  - Total payroll increases of 4.00% per year
  - No future growth in the number of active members is taken into account
- Plan earned 14.4% on a market-value basis, net of investment and administrative expenses
- Plan uses actuarial value to determine contribution rates and funded status
  - 5-year smoothing of net earnings above or below 8.00% assumption
  - Only 20% of 2006 gain reflected
  - Still reflecting 20% of loss from 2002 and 20% of gains from 2003,2004 and 2005
  - 11.1% return on actuarial value of assets
  - Impact on contribution rates shown on Exhibit 4(a), Col. (4)
- Actuarial value of assets (\$18.1 billion) is 91.2% of market assets (\$19.8 billion)
  - difference will be recognized over next four years
- In total, the systems experienced a small liability loss from liability experience (salary increases, retirement, mortality, etc.)
- Because of the offset for fire insurance premium tax receipts, the employer contribution rate for the two firefighter funds is reduced to 0.00%, as has been the case for several years

— The remaining offset is used to reduce member contribution rates

- Because of a decrease in the amount of the offset for the fire insurance premium tax receipts, the net member rates for both funds increased 0.38%
- See Exhibits 2(b) and 2(c) for details about the offsets applied to contribution rates for Firefighters
- No part of the fire insurance premium tax receipts is available to be transferred to the Public Safety Retirees' Cost-of-Living Increases Restricted Account

— A separate letter will be sent detailing this calculation

- The rate shown for the Judges System is for the noncontributory system. The employer contribution rate for the contributory system is 2.00 percentage points less.
- As for the past several years, no contribution is required for the Governors and Legislative Pension Plan, since the value of assets exceeds the actuarial present value of all future benefits for current members

# **SECTION II**

DISCUSSION

## DETERMINATION OF CALCULATED CONTRIBUTION RATES

The URS retirement systems, except for the Governors' and Legislators' Retirement Plan, are funded by employer contributions which are expressed as a percent of pay, and in some cases by member contributions. The Firefighters System and the Judges System receive additional funding from outside sources. As shown in Exhibit 2(a), the employer contribution rate can have as many as four components:

- The normal cost percentage (NC%)
- The amortization percentage (UAAL%)
- The contribution required to fund the 3% substantial substitute benefit (3%SS)
- The offset for fire insurance premium taxes and court fees which reduce the employer contribution rates in the Firefighters System and the Judges System, respectively.

The NC% is the theoretical amount which would be required to pay the members' benefits, based on the current plan provisions, if this amount had been contributed from each member's entry date and if the fund's experience exactly followed the actuarial assumptions. This is the amount it should cost to provide the benefits for an average new member. The NC% for each fund is shown in Exhibit 6(a).

Some of the funds require active member contributions, and for these, only the excess of the NC% over the member contribution rate is included in the employer contribution rate, as shown in Exhibit 6(b) and in column 2 of Exhibit 2(a).

The actuarial accrued liability (AAL) is the difference between (i) the actuarial present value of all future benefits for all current members of the fund, including active, inactive and retired members, and (ii) the actuarial present value of future normal costs. Thus the AAL represents the liability associated with past years. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and the actuarial value of assets (AVA). It is the shortfall/excess between the liability associated with prior years (the AAL) and the assets actually accumulated (the AVA). This shortfall/excess can arise from several sources, including actuarial gains and losses which are caused by differences between actual experience and the plan's assumptions, changes to the plan's actuarial assumptions, and amendments to the benefit provisions.

The UAAL% is the amount required to fund this difference. It is the amount, expressed as a level percentage of payroll, necessary to amortize the UAAL. The Board has specified that this amortization should be over a period of 20 years. Column 3 of Exhibit 2(a) shows the UAAL% for each fund.

The 3% Substantial Substitute component of the employer contribution rate is only required for funds whose members are employees of the state (or who are paid by state funding). This piece is the amount necessary to fund the 3% Substantial Substitute. It is shown in column 4 of Exhibit 2(a), and is described more fully later.

The last piece of the contribution rate is the offset. The Firefighters System receives a portion of the fire insurance premium taxes collected by the state, and the Judges System receives a portion of court fees collected by the judiciary. The calculation of the offsets is shown in Exhibit 2(b).

Section 49-11-301(5) was added to the Utah Code in 2004. This law gives the Board the option of setting contribution rates at the higher of the previous year's rate or at the current year's actuarially calculated rate. The Board does not have to decrease the contribution rate from the prior year as long as it is funding towards or maintaining a funded ratio of 110%. Except for two funds, discussed below, none of the funds has reached the 110% funded level. The Board has followed the policy of holding the rates constant, but not less than the actuarially calculated rate, as permitted by §49-11-301(5).

Under the policy, the actuarial rates and last year's certified rates are compared, and the larger is set as the new certified rate. This is done separately for the contribution for the 3% Substantial Substitute fund, and then the rate for the 3% Substantial Substitute is added to the regular contribution rate, as shown on Exhibit 1(b). Then the offset for the fire insurance premium tax and the court fees are applied, as shown in Exhibit 2(c).

Note that the offset for the fire insurance premium tax is applied to reduce the employer contribution rates to zero, and then any remaining offset is used to reduce the member contribution rates, but not less than the prior year's net member rate. As you can see on Exhibit 1(a), the member rates for both of the Firefighter funds will be higher by 0.38% this year, because of a reduction in the amount of offset recognized.

The two funds that are at least 110% funded are

- the Governors' and Legislators' Retirement Plan
- Firefighters, Division B

Section 49-11-301(5) has no effect on the Governors' and Legislators' Retirement Plan, because no contributions are required for this fund. For Firefighters, Division B, even though the fund is now over 110% funded, the contribution rate required to maintain that position is greater than last year's 4.09% rate. This anomaly arises because the two funds in the Firefighter Retirement System were already overfunded in 2004, when §49-11-301(5) went into effect. Therefore, we are recommending that the contribution rate, before reflection of the fire insurance premium tax offset, be left at last year's rate, rather than being reduced.

The contribution rates set in this valuation will become effective for the twelve-month period beginning July 1, 2008 (FY 2009).

The Governors' and Legislators' Retirement Plan, unlike the other systems, is funded by direct legislative appropriations. However, the actuarial value of assets exceeds the actuarial present value of future benefits for this fund, and therefore no contribution is required this year.

#### FINANCIAL DATA AND EXPERIENCE

As of December 31, 2006, the retirement systems that are part of URS have a total market value of \$19.8 billion. This excludes assets of the 401(k) and 457 plans which are also administered by URS. Assets of the various funds and systems are commingled for investment purposes. Financial information was gathered from the 2006 URS Comprehensive Annual Financial Report, with additional information provided by the URS staff.

This report includes a number of exhibits related to plan assets. Exhibit 11(a) shows how the total market value is distributed among the various classes of investments. Currently, 55% of invested assets are held in equities and alternative investments, compared with 57% last year and 62% the year before.

Exhibit 11(b) shows a reconciliation of the market values between the beginning and end of 2006. The contributions shown in column 3 of Exhibit 11(b) include employer and member contributions, as well as court fees and fire insurance premium tax receipts. The 3% substantial substitute fund is shown as a separate item.

During 2006, the total investment return on market values was 14.4%, as shown on Exhibit 12(a). This return is net of all investment and administrative expenses.

In determining the contribution rates and funded status of the funds, an actuarial value of assets (AVA) is used, rather than the market value of assets. The method used to compute the AVA takes the difference between actual earnings and expected earnings (based on the assumed 8.00% investment return rate) each year, and recognizes the difference over five years, at 20% per year. This is intended to reduce the volatility of the contribution rates from year to year. This "smoothed" asset value is then subjected to the further constraint that the actuarial value of assets cannot be less than 80% or more than 120% of the market value of assets.

The development of the AVA is shown on Exhibits 13 and 14. The AVA is \$18.1 billion for all systems combined. This work was performed by the URS staff, but has been reviewed and approved by GRS. In the aggregate, the AVA is 91.2% of the MVA.

Some funds in the Contributory Public Employees System and the Contributory Public Safety System are paired with funds in the Public Employees and Public Safety noncontributory systems. For example, Fund 23, Other Division A, in the Public Safety Contributory System is paired with Fund 43, Other Division A, in the Public Safety Noncontributory System. In these cases, URS has established a policy of maintaining either the same difference between contribution rates for pairs of funds, or it maintains equal amortization percentages. To accomplish this, an amount of assets is transferred each year between fund pairs, as necessary. Exhibit 14, column 6 shows the change that must occur to the AVA in order to accomplish this. Exhibit 14, column 3 shows how much must be transferred between systems to accomplish this in terms of market value. In addition to the market return, Exhibit 12(a) also shows the return on the actuarial value for URS. For 2006, this return was 11.1%. Because this is greater than the assumed 8.00% investment return, the plan experienced a gain on the actuarial value of assets. Exhibit 12(b) shows a summary of market and actuarial return rates in recent years.

# MEMBER DATA

Member data was supplied by URS staff on an electronic file as of December 31, 2006. While we did not audit this data, we did perform various tests to ensure that it was internally consistent, consistent with the prior year's data, and was reasonable overall.

Exhibit 8 shows the number of members by category (active, inactive, retired, etc.) and by fund. Exhibit 9 shows active member statistics by fund, and Exhibit 10 shows retiree statistics by fund. Exhibits 16(a)-16(g) show summaries of certain historical data, including membership statistics, for each system.

For all funds combined, the number of active members increased from 98,740 to 100,246, a 1.5% increase. Last year, total active membership grew 1.0%, and over the last five years, membership growth has averaged 0.9% per year.

Total active member payroll grew 5.0% last year for all funds combined, compared with a 2.0% increase the prior year.

# **BENEFIT PROVISIONS**

Appendix 2 includes a summary of the benefit provisions for each of the retirement systems in URS. The valuation reflects any benefit changes enacted by the 2007 legislature. Although not effective on the valuation date, they will be effective on or before the contribution rates actually go into effect at July 1, 2008.

However, there were no changes made since the previous valuation that had a measurable effect on the current valuations.

This valuation reflects all benefits promised to URS members, either by the statutes, or in the case of the special supplement for the Governors' and Legislators' Retirement Plan and the ROPP payments (discussed later), by the Board. There are no ancillary benefits that might be deemed a URS liability if continued beyond the availability of funding by the current funding source.

#### **ACTUARIAL METHODS AND ASSUMPTIONS**

Appendix 1 includes a summary of the actuarial assumptions and methods used in this valuation. Costs are determined using the Entry Age actuarial cost method. The assumed investment return rate is 8.00%. The Board adopted new actuarial assumptions in connection with the 2005 experience investigation, as recommended by the actuary. Please see Appendix 1 for a complete description of these assumptions.

# GASB 25 AND FUNDING PROGRESS

Governmental Accounting Standards Board Statement No. 25 (GASB 25) contains certain accounting requirements for URS. In particular, it requires the inclusion of two special schedules in the URS annual report:

- 1. Schedule of Funding Progress
- 2. Schedule of Employer Contributions

Information needed to prepare the Schedule of Funding Progress is included in Exhibit 3(a). This shows that all but three of the funds have a funded ratio (ratio of actuarial assets to accrued liabilities) of at least 80%, and most are over 90%. The only funds with funded ratios below 80% are Salt Lake City and Logan in the Public Safety Noncontributory Retirement System and the 3% Substantial Substitute fund. The latter has only been a liability of URS since 1994. See Exhibit 3(a), column 5. Funded ratios have increased for all funds since last year (except for Salt Lake City Public Safety Contributory which remained the same), as shown on Exhibit 3(b).

GASB 25 also requires that plans calculate an Annual Required Contribution (ARC), and, if actual contributions received are less than the ARC, this must be disclosed. For this disclosure, URS treats the Board-established employer contribution rate as the ARC, as long as this produces a funding period of less than 30 years.

Under GASB 25, the ARC must be calculated in accordance with certain parameters. In particular, it must include a payment to amortize the UAAL. This amortization payment must be computed using a funding period no greater than 30 years. Further, the amortization payment included in the ARC may be computed as a level amount, or it may be computed as an amount which increases with payroll. However, if payments are computed on a level-percent-of-payroll approach, the payroll growth assumption may not anticipate future membership growth.

The calculated employer contribution rate is computed as a level percentage of payroll using a 20year amortization period. Since the recommended employer rate is the greater of the prior year's certified rate or this year's calculated rate, the recommended rate meets the definition of an acceptable ARC.

# FIREFIGHTERS AND JUDGES OFFSETS

A portion of the fire insurance premium taxes collected by the State of Utah is contributed to the Firefighters System, and a portion of the court fees collected by the state judiciary is contributed to the Judges System. To account for this prospectively, the recommended contribution rates for the funds in these systems are reduced.

In order to dampen year-to-year fluctuations in the offsets, we are using a rolling three-year average in computing the offsets. First, we calculate a percentage of pay offset for each year, equal to receipts divided by payroll. (For the Firefighters, all calculations are done on a combined basis for Divisions A and B.) Then the offset percentages for the just completed year and the two prior years are averaged. This average is then used as the current year's offset. The calculation of the offsets is shown on Exhibit 2(b).

The offset for the Firefighter System decreased from 11.50% to 11.12%, and the offset for the Judges System decreased from 15.45% to 14.32%. The decrease in the Firefighter System offset appears due in part to two factors: typical fluctuations in receipts, and the transfer of over \$2.1 million to the Public Safety Retirees' Cost-of-Living Increases Restricted Account. This account, not part of URS, is discussed later.

It should be noted that the employer contribution rates for both divisions of the Firefighter's System are less than the offset for the fire insurance premium. Based on Board policy, we first applied the offset to reduce the employer contribution rates to zero, and then we used the remaining offset to reduce the member contribution rates.

The 2004 Legislature enacted legislation which created the Public Safety Retirees' Cost-of-Living Increases Restricted Account. As a result of this legislation a portion of fire insurance premium tax receipts that would normally have been contributed to the Firefighter System may instead be redirected to this new account. There was a transfer early in 2007 of approximately \$2.1 million from the Firefighters Retirement System to the Public Safety Retirees' Cost-of-Living Increases Restricted Account. These are amounts for FY 2005 and FY 2006 which should have gone to the Public Safety Retirees' Cost-of-Living Increases Restricted Account all along, but were inadvertently deposited to the Firefighters Retirement System. This transaction was accrued back into the calendar year ending Dec. 31, 2006.

#### **3% SUBSTANTIAL SUBSTITUTE**

Due to the removal of the state income tax exemption for benefits paid by URS, legislation was passed to provide a 3% retirement benefit increase for URS retirees who were members of URS prior to January 1, 1989. All future retirees who were members of the URS prior to January 1, 1989 will be eligible for this benefit as well, as will beneficiaries of eligible members.

The 3% increase applies to all benefits paid to eligible members, including benefits earned after January 1, 1989 and including future cost-of-living increases. However, the 3% increase does not apply to refunds of employee contributions or to the Restoration of Purchasing Power (ROPP) benefits; see the next section.

Due to legislation passed in 1994, this benefit is now pre-funded. The obligation for payment of this benefit belongs to the state, however, not to the employer. Therefore the contribution needed to fund the benefit is determined as an addition to the employer contribution rates required for the State and School Funds in the Public Employees Contributory and Noncontributory Systems, the State of Utah funds in the Public Safety Contributory and Noncontributory Systems, and the Judges System.

The actuarially determined contribution required to pay for this benefit is 0.73%, 0.05% less than last year. Details of the calculation are shown in Exhibit 15(a), while Exhibit 15(b) shows a distribution of the liabilities associated with this benefit.

The Board has the authority, under Section 11-49-301(5), to hold the contribution rate for the Substantial Substitute at 0.85% (last year's rate).

# **RESTORATION OF PURCHASING POWER (ROPP)**

URS provides a special benefit to a closed group of retired members. This benefit was granted by the Board of Trustees, not by the legislature, and hence it does not appear in the statutes governing URS. The Board provided this benefit, called the Restoration of Purchasing Power benefit or ROPP benefit, to retired members during the 1980s, in order to counteract some of the impact of inflation.

The ROPP benefit is a fixed amount that does not increase and is not adjusted for changes in the cost of living. It is provided only to the closed group of members who were retired at the time of the Board's action. Therefore, since the group is closed and since the benefit amount cannot increase, this liability decreases from year to year as the retiree group receiving the ROPP grows older and decreases in size due to mortality.

Exhibit 5(e) shows the liabilities for the ROPP benefits in column 5.

#### PUBLIC SAFETY RETIREES' COST-OF-LIVING INCREASES RESTRICTED ACCOUNT

The 2004 Legislature enacted legislation which created a new fund—the Public Safety Retirees' Cost-of-Living Increases Restricted Account—under the General Fund of the State of Utah, effective July 1, 2004.

The legislation appropriated \$1.1 million from the Fire Academy Support Account. The legislation also requires that a portion of the fire insurance premium tax receipts that currently go to the Firefighters System be redirected to this new fund. However, only money above a threshold determined actuarially goes to the Public Safety Retirees' Cost-of-Living Increases Restricted Account. As previously noted in the Firefighters Offset discussion section, \$2.1 million in retroactive transfers were made to this fund for 2005 and 2006.

As of the valuation date there currently are not sufficient assets in the fund to increase the Public Safety COLA.

It should also be noted that the assets of the Public Safety Retirees' Cost-of-Living Increases Restricted Account are a part of the General Fund, and they are not managed by URS.

# **SECTION III**

SUPPORTING EXHIBITS

		Pri	or Year Valuat	ion	Cur	rent Year Valu	ation	Increase/
		Certifi	ed Rates for F	Y 2008	Recomme	ended Rates for	r FY 2009	(Decrease)
	Fund/Division	Member	Employer	Total	Member	Employer	Total	in Total
-	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		( )	(-)		(-)			
I.	Public Employees Contributory							
	A. Local Government	6.00%	7.45%	13.45%	6.00%	7.45%	13.45%	0.00%
	B. State and School	6.00%	9.57%	15.57%	6.00%	9.57%	15.57%	0.00%
II.	Public Employees Noncontributory							
	A. Local Government	0.00%	11.46%	11.46%	0.00%	11.46%	11.46%	0.00%
	B. State and School	0.00%	14.06%	14.06%	0.00%	14.06%	14.06%	0.00%
III.	Public Safety Contributory							
	A. State	12.29%	15.46%	27.75%	12.29%	15.46%	27.75%	0.00%
	B. Other Division A	12.29%	11.22%	23.51%	12.29%	11.22%	23.51%	0.00%
	C. Salt Lake City	13.74%	22.99%	36.73%	13.74%	22.99%	36.73%	0.00%
	D. Provo	13.54%	16.30%	29.84%	13.54%	16.30%	29.84%	0.00%
	E. Logan	11.13%	14.61%	25.74%	11.13%	14.61%	25.74%	0.00%
	F. Other Division B	10.50%	15.69%	26.19%	10.50%	15.69%	26.19%	0.00%
IV.	Public Safety Noncontributory							
	A. State	0.00%	26.75%	26.75%	0.00%	26.75%	26.75%	0.00%
	B. Other Division A	0.00%	22.61%	22.61%	0.00%	22.61%	22.61%	0.00%
	C. Salt Lake City	0.00%	35.71%	35.71%	0.00%	35.71%	35.71%	0.00%
	D. Ogden	0.00%	31.47%	31.47%	0.00%	31.47%	31.47%	0.00%
	E. Logan	0.00%	25.48%	25.48%	0.00%	25.48%	25.48%	0.00%
	F. Bountiful	0.00%	22.47%	22.47%	0.00%	22.47%	22.47%	0.00%
	G. Other Division B	0.00%	25.49%	25.49%	0.00%	25.49%	25.49%	0.00%
V.	Firefighters							
	A. Division A							
	1. Gross Rate	15.05%	9.21%	24.26%	15.05%	9.21%	24.26%	0.00%
	2. Less Estimated Offset	-2.29%	-9.21%	-11.50%	-1.91%	-9.21%	-11.12%	0.38%
	3. Net Rate	12.76%	0.00%	12.76%	13.14%	0.00%	13.14%	0.38%
	B. Division B							
	1. Gross Rate	16.71%	4.09%	20.80%	16.71%	4.09%	20.80%	0.00%
	2. Less Estimated Offset	-7.41%	-4.09%	-11.50%	-7.03%	-4.09%	-11.12%	0.38%
	3. Net Rate	9.30%	0.00%	9.30%	9.68%	0.00%	9.68%	0.38%
VI.	Judges	,,		,,.	,,		,,	
	A. Gross Rate	0.00%	27.83%	27.83%	0.00%	27.83%	27.83%	0.00%
	B Less Estimated Offset	-0.00%	-15.45%	-15.45%	-0.00%	-14.32%	-14.32%	1.13%
	C. Net Rate	0.00%	12.38%	12.38%	0.00%	13.51%	13.51%	1.13%
		210070			510070			
VI	. Governors and Legislative	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

# **Comparison of Prior Year Certified and Current Year Recommended Contribution Rates**

Note: Rates reflect 3% Substantial Substitute where applicable

0.16% Group Insurance contribution rate has been excluded from both the current and prior year results Recommended rates reflect application of U.C. Sec. 49-11-301(5)

# **Development of Recommended Contribution Rates**

	Fund/Division	Actuarially Calculated Rates for Current Year*	Certified Rates from Prior Year*	Larger of Columns (2,3)*	Recommended Rates Including 3% Substantital Substitute
	(1)	(2)	(3)	(4)	(5)
L	Public Employees Contributory				
	A. Local Government	6.48%	7.45%	7.45%	7.45%
	B. State and School	7.84%	8.72%	8.72%	9.57%
II.	Public Employees Noncontributory				
	A. Local Government	10.49%	11.46%	11.46%	11.46%
	B. State and School	12.33%	13.21%	13.21%	14.06%
III.	Public Safety Contributory				
	A. State	12.96%	14.61%	14.61%	15.46%
	B. Other Division A	10.19%	11.22%	11.22%	11.22%
	C. Salt Lake City	19.51%	22.99%	22.99%	22.99%
	D. Provo	14.65%	16.30%	16.30%	16.30%
	E. Logan	12.78%	14.61%	14.61%	14.61%
	F. Other Division B	15.00%	15.69%	15.69%	15.69%
IV.	Public Safety Noncontributory				
	A. State	24.18%	25.90%	25.90%	26.75%
	B. Other Division A	21.53%	22.61%	22.61%	22.61%
	C. Salt Lake City	32.21%	35.71%	35.71%	35.71%
	D. Ogden	30.89%	31.47%	31.47%	31.47%
	E. Logan	23.55%	25.48%	25.48%	25.48%
	F. Bountiful	19.81%	22.47%	22.47%	22.47%
	G. Other Division B	24.74%	25.49%	25.49%	25.49%
V.	Firefighters				
	A. Division A	8.34%	9.21%	9.21%	9.21%
	B. Division B	1.20%	4.09%	4.09%	4.09%
VI.	Judges	24.60%	26.98%	26.98%	27.83%
VII.	Governors and Legislative	0.00%	0.00%	0.00%	0.00%
VIII	3% Substantial Substitute	0.73%	0.85%	0.85%	N/A

\* Rates exclude 3% Substantial Substitute

Note: Rates shown for Firefighters and Judges exclude offsets for fire insurance premium tax and court fees Rates in Columns (2) & (3) have been adjusted to remove 0.16% Group Insurance contribution rate Rates in Column (4) reflect application of U.C. Sec. 49-11-301(5).

# **Components of Actuarially Calculated Contribution Rates**

					Gross		Net
		Net		3%	Employer		Employer
		Normal	Amortization	Substantial	Rate		Rate
	Fund/Division	Cost	of UAAL	Substitute	(2 + 3 + 4)	Offset	(5 - 6)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
I.	Public Employees Contributory						
	A. Local Government	4.23%	2.25%	0.00%	6.48%	0.00%	6.48%
	B. State and School	3.80%	4.04%	0.73%	8.57%	0.00%	8.57%
II.	Public Employees Noncontributory						
	A. Local Government	10.49%	0.00%	0.00%	10.49%	0.00%	10.49%
	B. State and School	11.38%	0.95%	0.73%	13.06%	0.00%	13.06%
III.	Public Safety Contributory						
	A. State	9.20%	3.76%	0.73%	13.69%	0.00%	13.69%
	B. Other Division A	8.77%	1.42%	0.00%	10.19%	0.00%	10.19%
	C. Salt Lake City	7.51%	12.00%	0.00%	19.51%	0.00%	19.51%
	D. Provo	7.92%	6.73%	0.00%	14.65%	0.00%	14.65%
	E. Logan	9.73%	3.05%	0.00%	12.78%	0.00%	12.78%
	F. Other Division B	10.54%	4.46%	0.00%	15.00%	0.00%	15.00%
IV.	Public Safety Noncontributory						
	A. State	20.42%	3.76%	0.73%	24.91%	0.00%	24.91%
	B. Other Division A	20.11%	1.42%	0.00%	21.53%	0.00%	21.53%
	C. Salt Lake City	20.21%	12.00%	0.00%	32.21%	0.00%	32.21%
	D. Ogden	20.25%	10.64%	0.00%	30.89%	0.00%	30.89%
	E. Logan	20.50%	3.05%	0.00%	23.55%	0.00%	23.55%
	F. Bountiful	20.19%	-0.38%	0.00%	19.81%	0.00%	19.81%
	G. Other Division B	20.28%	4.46%	0.00%	24.74%	0.00%	24.74%
v.	Firefighters						
	A. Division A	8.97%	-0.63%	0.00%	8.34%	9.21%	0.00%
	B. Division B	7.30%	-6.10%	0.00%	1.20%	4.09%	0.00%
VI.	Judges	24.46%	0.14%	0.73%	25.33%	14.32%	11.01%
VII	. Governors and Legislative	N/A	N/A	N/A	N/A	N/A	N/A

# **Determination of Contribution Rate Offsets for Firefighters and Judges**

#### A. Firefighter's Offset

1.	Calendar Year	2004	2005	2006
2.	Fire insurance premium receipts	\$ 8,659,000	\$ 9,601,000	\$ 9,518,000
3.	Combined payroll for both funds*	79,168,069	83,495,618	87,088,690
4.	Premiums as percentage of payroll	10.94%	11.50%	10.93%
5.	Offset: 3-year arithmetic average of percent of payroll			11.12%

#### B. Judge's Offset

1.	Calendar Year	2004	2005	2006
2.	Court fees	\$ 1,808,000	\$ 1,605,000	\$ 1,723,000
3.	Payrol1*	11,819,728	11,721,124	12,335,692
4.	Premiums as percentage of payroll	15.30%	13.69%	13.97%
5.	Offset: 3-year arithmetic average of percent of payroll			14.32%

\* Reported payroll for members active at end of year

	Fund/Division	Gross Recommended Employer Rates	Offset Percentage	Net Employer Rate Not Less Than Zero	Unused Offset* (3) - (2)
	(1)	(2)	(3)	(4)	(5)
I.	Firefighters				
	Division A	9.21%	11.12%	0.00%	1.91%
	Division B	4.09%	11.12%	0.00%	7.03%
II.	Judges	27.83%	14.32%	13.51%	0.00%

# Effect of Offsets on Recommended Employer Rates and Member Rates

		Gross			Net Member	
		Member	Available	Net	Rate from	Greater of
	Fund/Division	Rate	Offset*	(2) - (3)	Prior Year	(4,5)
	(1)	(2)	(3)	(4)	(5)	(6)
I.	Firefighters					
	Division A	15.05%	1.91%	13.14%	12.76%	13.14%
	Division B	16.71%	7.03%	9.68%	9.30%	9.68%

\* Available to offset member contibution rates

# **Schedule of Funding Progress**

	Fund/Division (1)	Actuarial Value of Assets (2)	Actuarial Accrued Liability (AAL) (3)	Unfunded AAL (UAAL) (3 - 2) (4)	Funded Ratio (2 / 3) (5)	Covered Payroll (6)	UAAL as a Percentage of Covered Payroll (4 / 6) (7)
т	Dublic Englands Contributors						
1.	A Local Government	319.072	338 625	19 553	94 2%	60 320	37 1%
	B State and School	685 380	724 342	38 962	94.2%	67.268	57.9%
	C. Subtotal	1,004,452	1,062,967	58,515	94.5%	127,588	45.9%
п	Deblis Freedom Non contributors						
п.	A Local Covernment	2 455 870	2 156 028	169	100.0%	752 247	0.0%
	A. Local Government	2,433,870	2,430,038	240.025	07.1%	2 521 049	0.0%
	C. Subtotal	14 205 045	14 645 129	240,102	97.1%	2,331,048	10.6%
	C. Subtotai	14,295,945	14,045,158	549,195	97.0%	3,284,295	10.0%
III.	Public Safety Contributory						
	A. State	58,215	58,565	350	99.4%	649	53.9%
	B. Other Division A	174,308	177,890	3,582	98.0%	17,533	20.4%
	C. Salt Lake City	37,036	37,249	212	99.4%	123	172.4%
	D. Provo	29,473	33,773	4,300	87.3%	4,428	97.1%
	E. Logan	16,056	16,870	814	95.2%	1,856	43.9%
	F. Other Division B	46,700	51,658	4,958	90.4%	7,702	64.4%
	G. Subtotal	361,788	376,005	14,216	96.2%	32,291	44.0%
IV.	Public Safety Noncontributory						
	A. State	594,025	648,024	53,999	91.7%	99,440	54.3%
	B. Other Division A	568,917	595,066	26,149	95.6%	127,360	20.5%
	C. Salt Lake City	128.064	169.572	41,509	75.5%	24.003	172.9%
	D. Ogden	44,077	51,735	7,658	85.2%	4,981	153.7%
	E. Logan	882	1.142	260	77.2%	586	44.4%
	F. Bountiful	14.838	14.750	(88)	100.6%	1.603	-5.5%
	G. Other Division B	96.608	112.688	16.080	85.7%	24,982	64.4%
	H. Subtotal	1,447,411	1,592,977	145,567	90.9%	282,955	51.4%
v	Firefighters						
۰.	A Division A	82.060	81 160	(1.800)	102 204	10 775	0.10/
	A. Division P	622,909	562 605	(1,309)	110 6%	67 214	-9.170
	C. Subtotal	705,051	643,765	(61,286)	109.5%	87,089	-70.4%
VI.	Judges	116,879	117,127	248	99.8%	12,336	2.0%
VII.	Governors and Legislative	10,983	9,212	(1,771)	119.2%	797	-222.2%
VIII.	3% Substantial Substitute	150,983	438,923	287,940	34.4%	N/A	N/A
IX.	Grand Total	18,093,492	18,886,114	792,622	95.8%	3,827,351	20.7%

Note: Amounts shown are in \$ thousands Columns may not add to total due to rounding

		Funded Ratios as of January 1					
	Fund/Division	2007	2006	2005			
	(1)	(2)	(3)	(4)			
I.	Public Employees Contributory						
	A. Local Government	94.2%	91.4%	91.2%			
	B. State and School	94.6%	93.2%	92.5%			
	C. Subtotal	94.5%	92.6%	92.1%			
II.	Public Employees Noncontributory						
	A. Local Government	100.0%	95.6%	95.5%			
	B. State and School	97.1%	95.1%	94.1%			
	C. Subtotal	97.6%	95.2%	94.3%			
I. II. IV. V. VI. VII. VII.	Public Safety Contributory						
	A. State	99.4%	99.1%	98.9%			
	B. Other Division A	98.0%	96.3%	96.6%			
	C. Salt Lake City	99.4%	99.4%	99.4%			
	D. Provo	87.3%	83.0%	84.1%			
	E. Logan	95.2%	92.6%	90.0%			
	F. Other Division B	90.4%	88.2%	85.8%			
	G. Subtotal	96.2%	94.7%	94.7%			
IV.	Public Safety Noncontributory						
	A. State	91.7%	89.4%	86.8%			
	B. Other Division A	95.6%	92.0%	92.4%			
	C. Salt Lake City	75.5%	69.2%	69.1%			
	D. Ogden	85.2%	84.0%	84.5%			
	E. Logan	77.2%	72.3%	78.6%			
	F. Bountiful	100.6%	95.9%	100.4%			
	G. Other Division B	85.7%	83.0%	81.4%			
	H. Subtotal	90.9%	87.6%	86.6%			
V.	Firefighters						
	A. Division A	102.2%	99.0%	103.9%			
	B. Division B	110.6%	105.7%	105.7%			
	C. Subtotal	109.5%	104.9%	105.5%			
VI.	Judges	99.8%	99.5%	96.7%			
VII.	Governors and Legislative	119.2%	118.0%	122.0%			
VIII	. 3% Substantial Substitute	34.4%	31.5%	28.6%			
IX.	Grand Total	95.8%	93.2%	92.4%			

#### Utah Retirement Systems Actuarial Valuation – January 1, 2007

		Calculated						Calculated	
	Fund/Division	Rate From			Changes in Calcu	alated Rate Due To	Го		Rate Jan. 1, 2007 Valuation
		Jan. 1, 2006	Payroll	Investment Return	Liabilities	Actuarial Assumptions	Legislation	Act. vs Exp. Contributions	
		Valuation	Growth						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I.	Public Employees Contributory								
	A. Local Government	7.45%	-0.01%	-0.65%	-0.26%	0.00%	0.00%	-0.05%	6.48%
	B. State and School	9.26%	-0.01%	-0.95%	0.28%	0.00%	0.00%	-0.01%	8.57%
II.	Public Employees Noncontributory								
	A. Local Government	11.46%	-0.01%	-0.65%	-0.26%	0.00%	0.00%	-0.05%	10.49%
	B. State and School	13.75%	-0.01%	-0.95%	0.28%	0.00%	0.00%	-0.01%	13.06%
III.	Public Safety Contributory								
	A. State	14.53%	-0.20%	-1.28%	0.59%	0.00%	0.00%	0.05%	13.69%
	B. Other Division A	11.22%	-0.08%	-0.99%	-0.04%	0.00%	0.00%	0.08%	10.19%
	C. Salt Lake City	21.82%	0.40%	-1.32%	-1.45%	0.00%	0.00%	0.06%	19.51%
	D. Provo	16.30%	0.32%	-1.30%	-0.86%	0.00%	0.00%	0.19%	14.65%
	E. Logan	14.22%	-0.34%	-1.36%	0.25%	0.00%	0.00%	0.01%	12.78%
	F. Other Division B	15.52%	-0.16%	-0.84%	0.42%	0.00%	0.00%	0.06%	15.00%
IV.	Public Safety Noncontributory								
	A. State	25.90%	-0.20%	-1.28%	0.44%	0.00%	0.00%	0.05%	24.91%
	B. Other Division A	22.61%	-0.08%	-0.99%	-0.09%	0.00%	0.00%	0.08%	21.53%
	C. Salt Lake City	34.55%	0.40%	-1.32%	-1.48%	0.00%	0.00%	0.06%	32.21%
	D. Ogden	31.47%	0.04%	-1.76%	0.87%	0.00%	0.00%	0.27%	30.89%
	E. Logan	25.08%	-0.34%	-1.36%	0.16%	0.00%	0.00%	0.01%	23.55%
	F. Bountiful	22.47%	0.11%	-1.81%	-1.29%	0.00%	0.00%	0.33%	19.81%
	G. Other Division B	25.38%	-0.16%	-0.84%	0.30%	0.00%	0.00%	0.06%	24.74%
V.	Firefighters								
	A. Division A	9.21%	0.00%	-0.78%	-0.33%	0.00%	0.00%	0.24%	8.34%
	B. Division B	3.96%	-0.01%	-1.82%	-1.03%	0.00%	0.00%	0.10%	1.20%
VI.	Judges	25.84%	-0.02%	-1.93%	1.20%	0.00%	0.00%	0.24%	25.33%
VII.	Governors and Legislative	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VIII.	3% Substantial Substitute	0.78%	0.00%	-0.01%	-0.03%	0.00%	0.00%	-0.01%	0.73%

### Analysis of Changes in Calculated Contribution Rates

Notes: Rates shown as of Jan. 1, 2006 do not include any adjustments for 2006 legislation

Rates shown include contribution for 3% Substantial Substitute, if applicable

Rates shown do not include the offsets for court fees or for fire insurance premium taxes

For paired funds, rates include asset rebalancing at each point of the analysis

Caclulated rates shown in Column (2) have been revised to exclude 0.16% Group Insurance contribution rate

			Changes in Unfunded Actuarial Accrued Liability Due To						
	Fund/Division	Jan. 1, 2006 UAAL	Amortization Payments	Liability (Gain)\Loss	Asset (Gain)\Loss	Change in Actuarial Assumptions	Change in Benefit Provisions	Asset Transfers	Jan. 1, 2007 UAAL
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I.	Public Employees Contributory A. Local Government B. State and School C. Subtotal	27,925 47,844 75,769	(572) 11,315 10,743	(1,120) (6,048) (7,168)	(9,330) (20,149) (29,479)	0 0 0	0 0 0	2,650 6,000 8,650	19,553 38,962 58,515
II.	Public Employees Noncontributory A. Local Government B. State and School C. Subtotal	101,595 557,161 658,756	(7,666) (30,817) (38,483)	(23,288) 160,385 137,097	(67,823) (331,704) (399,527)	0 0 0	0 0 0	(2,650) (6,000) (8,650)	168 349,025 349,193
III.	Public Safety Contributory A. State B. Other Division A C. Salt Lake City D. Provo E. Logan F. Other Division B G. Subtotal	537 6,260 245 5,502 1,185 5,483 19,212	34 55 0 119 19 63 290	432 1,869 (1,118) (496) 38 1,187 1,912	$(1,853) \\ (5,152) \\ (1,223) \\ (826) \\ (466) \\ (1,285) \\ \hline (10,805)$	0 0 0 0 0 0 0	0 0 0 0 0 0	$ \begin{array}{r} 1,199\\550\\2,308\\0\\38\\(490)\\\overline{3,605}\end{array} $	350 3,582 212 4,300 814 4,958 14,216
IV.	<ul> <li>Public Safety Noncontributory</li> <li>A. State</li> <li>B. Other Division A</li> <li>C. Salt Lake City</li> <li>D. Ogden</li> <li>E. Logan</li> <li>F. Bountiful</li> <li>G. Other Division B</li> <li>H. Subtotal</li> </ul>	$63,148 \\ 43,718 \\ 49,488 \\ 7,899 \\ 268 \\ 574 \\ 17,123 \\ 182,218 \\$	$(275) \\ 1,124 \\ 292 \\ 207 \\ (19) \\ 60 \\ 165 \\ 1,554 $	8,887 (2,652) (2,578) 821 62 (305) 951 5,186	(16,562) (15,492) (3,386) (1,268) (13) (418) (2,650) (39,789)	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	$(1,199) \\ (550) \\ (2,308) \\ 0 \\ (38) \\ 0 \\ \hline 490 \\ (3,605)$	53,99926,14941,5097,658260(88)16,080145,567
V.	Firefighters A. Division A B. Division B C. Subtotal	713 (30,850) (30,137)	648 533 1,181	(917) (11,414) (12,331)	(2,253) (17,746) (19,999)	0 0 0	0 0 0	0 0 0	(1,809) (59,477) (61,286)
VI.	Judges	588	260	2,776	(3,376)	0	0	0	248
VII.	Governors and Legislative	(1,613)	(7)	170	(321)	0	0	0	(1,771)
VIII. IX.	3% Substantial Substitute Grand Total	290,422 1,195,215	15 (24,447)	1,205 128,846	(3,701) (506,997)	0 0	0 0	0 0	287,940 792,622

#### Analysis of Financial Experience

Note: Amounts shown are in \$ thousands

Columns may not add to total due to rounding
### Actuarial Present Value of Future Benefits by Fund and Status

		Retirees and	Inactive	Active		
	Fund/Division	Beneficiaries	Members	Members	Total	
	(1)	(2)	(3)	(4)	(5)	
I.	Public Employees Contributory					
	A. Local Government	114,148	30,813	236,588	381,549	
	B. State and School	322,664	64,134	372,336	759,134	
	C. Subtotal	436,812	94,947	608,924	1,140,683	
II.	Public Employees Noncontributory					
	A. Local Government	847,312	149,478	2,122,875	3,119,665	
	B. State and School	5,438,446	467,158	8,711,661	14,617,264	
	C. Subtotal	6,285,758	616,636	10,834,536	17,736,929	
III.	Public Safety Contributory					
	A. State	53,196	1,597	4,267	59,061	
	B. Other Division A	113,048	7,464	89,349	209,861	
	C. Salt Lake City	36,468	46	866	37,380	
	D. Provo	17,285	1,348	23,555	42,188	
	E. Logan	9,000	228	10,680	19,908	
	F. Other Division B	24,231	2,459	38,980	65,670	
	G. Subtotal	253,228	13,142	167,697	434,068	
IV.	Public Safety Noncontributory					
	A. State	336,417	15,501	474,282	826,199	
	B. Other Division A	243,592	17,995	586,780	848,368	
	C. Salt Lake City	86,150	1,970	123,064	211,184	
	D. Ogden	36,734	951	24,025	61,710	
	E. Logan	763	1	1,986	2,750	
	F. Bountiful	8,001	89	9,178	17,269	
	G. Other Division B	41,514	4,985	115,466	161,965	
	H. Subtotal	753,171	41,492	1,334,781	2,129,445	
V.	Firefighters					
	A. Division A	33,658	1,603	104,373	139,634	
	B. Division B	321,860	3,806	409,564	735,229	
	C. Subtotal	355,518	5,409	513,937	874,863	
VI.	Judges	56,363	1,270	80,233	137,866	
VII.	Governors and Legislative	5,142	2,324	2,195	9,661	
VII	I. Grand Total	8,145,992	775,220	13,542,303	22,463,515	

Notes: Amounts shown are in \$ thousands

### Actuarial Present Value of Future Benefits Details for Retirees and Beneficiaries, by Status

	Fund/Division	Retired Members	Disabled Members	Beneficiaries	Total
	(1)	(2)	(3)	(4)	(5)
I.	Public Employees Contributory				
	A. Local Government	92.736	5.072	16.339	114,148
	B. State and School	264.238	10.479	47.946	322.664
	C. Subtotal	356,974	15,551	64,285	436,812
II.	Public Employees Noncontributory				
	A. Local Government	778,382	19,113	49,817	847,312
	B. State and School	5,113,501	69,695	255,243	5,438,439
	C. Subtotal	5,891,883	88,808	305,060	6,285,751
III.	Public Safety Contributory				
	A. State	38,982	2,083	12,132	53,196
	B. Other Division A	96,972	1,805	14,272	113,048
	C. Salt Lake City	29,933	796	5,739	36,468
	D. Provo	15,992	0	1,293	17,285
	E. Logan	8,776	101	123	9,000
	F. Other Division B	22,436	836	958	24,231
	G. Subtotal	213,091	5,621	34,517	253,228
IV.	Public Safety Noncontributory				
	A. State	321,465	4,336	10,616	336,417
	B. Other Division A	229,899	3,157	10,536	243,592
	C. Salt Lake City	80,215	1,826	4,108	86,150
	D. Ogden	33,640	79	3,015	36,734
	E. Logan	763	0	0	763
	F. Bountiful	7,746	0	256	8,001
	G. Other Division B	38,823	1,553	1,138	41,514
	H. Subtotal	712,551	10,951	29,669	753,171
V.	Firefighters				
	A. Division A	27,265	4,279	2,114	33,658
	B. Division B	277,311	15,854	28,695	321,860
	C. Subtotal	304,576	20,133	30,809	355,518
VI.	Judges	48,913	0	7,450	56,363
VII.	Governors and Legislative	4,416	0	726	5,142
VIII	. Grand Total	7,532,404	141,064	472,516	8,145,985

Notes: Amounts shown are in \$ thousands

### Actuarial Present Value of Future Benefits Details for Inactive Members, by Status

Fund/Division	Disabled	Other Vested	Nonvested	Total
(1)	(2)	(3)	(4)	(5)
I. Public Employees Contributory				
A. Local Government	2.004	27.291	1.518	30.813
B. State and School	7.891	55.923	321	64.134
C. Subtotal	9,895	83,214	1,839	94,947
II. Public Employees Noncontributory				
A. Local Government	18,214	129,578	1,687	149,478
B. State and School	75,391	386,510	5,257	467,158
C. Subtotal	93,605	516,088	6,944	616,636
III. Public Safety Contributory				
A. State	0	1,582	16	1,597
B. Other Division A	0	7,031	432	7,464
C. Salt Lake City	0	45	1	46
D. Provo	0	1,272	76	1,348
E. Logan	0	218	10	228
F. Other Division B	415	1,967	76	2,459
G. Subtotal	415	12,115	611	13,142
IV. Public Safety Noncontributory				
A. State	2,636	12,857	8	15,501
B. Other Division A	3,033	14,954	8	17,995
C. Salt Lake City	256	1,714	0	1,970
D. Ogden	379	573	0	951
E. Logan	0	1	0	1
F. Bountiful	0	89	0	89
G. Other Division B	1,321	3,633	32	4,985
H. Subtotal	7,625	33,821	48	41,492
V. Firefighters				
A. Division A	0	1,488	115	1,603
B. Division B	0	3,514	292	3,806
C. Subtotal	0	5,002	407	5,409
VI. Judges	0	1,270	0	1,270
VII. Governors and Legislative	0	2,314	11	2,324
VIII. Grand Total	111,540	653,824	9,860	775,220

Notes: Amounts shown are in \$ thousands

### Actuarial Present Value of Future Benefits Details for Active Members, by Benefit

			Deferred		Díl	D d	T ( 1
	Fund/Division	Retirement	Termination	Disability	Refunds	Death	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
I.	Public Employees Contributory						
	A. Local Government	211,233	13,892	4,117	2,855	4,491	236,588
	B. State and School	348,403	13,232	4,655	47	6,000	372,336
	C. Subtotal	559,636	27,124	8,772	2,902	10,491	608,924
II.	Public Employees Noncontributory						
	A. Local Government	1,854,881	165,475	58,161	1,141	43,217	2,122,875
	B. State and School	7,947,844	443,890	180,827	531	138,568	8,711,661
	C. Subtotal	9,802,725	609,365	238,988	1,672	181,785	10,834,536
III.	Public Safety Contributory						
	A. State	4,227	2	8	0	29	4,267
	B. Other Division A	85,107	948	1,291	1,145	858	89,349
	C. Salt Lake City	856	1	2	0	7	866
	D. Provo	22,275	265	362	346	307	23,555
	E. Logan	10,291	98	107	83	101	10,680
	F. Other Division B	36,968	467	574	495	476	38,980
	G. Subtotal	159,724	1,781	2,344	2,069	1,778	167,697
IV.	Public Safety Noncontributory						
	A. State	450,624	9,190	8,930	4	5,534	474,282
	B. Other Division A	554,373	13,307	12,062	97	6,940	586,780
	C. Salt Lake City	117,800	1,941	1,779	0	1,545	123,064
	D. Ogden	22,691	511	473	0	351	24,025
	E. Logan	1,813	68	64	0	41	1,986
	F. Bountiful	8,844	119	116	0	99	9,178
	G. Other Division B	109,184	2,330	2,232	0	1,720	115,466
	H. Subtotal	1,265,329	27,466	25,656	101	16,230	1,334,781
V.	Firefighters						
	A. Division A	96,807	632	4,478	873	1,583	104,373
	B. Division B	388,010	1,479	10,263	2,528	7,284	409,564
	C. Subtotal	484,817	2,111	14,741	3,401	8,867	513,937
VI.	Judges	78,267	0	0	0	1,966	80,233
VII.	Governors and Legislative	1,377	790	0	0	28	2,195
VIII	. Grand Total	12,351,875	668,637	290,501	10,145	221,145	13,542,303

Notes: Amounts shown are in \$ thousands

### Actuarial Present Value of Future Benefits Details for Members Receiving Benefits, by Benefit

				Subtotal		Total
	Fund/Division	Basic Benefit	COLA	(2) + (3)	ROPP	(4) + (5)
	(1)	(2)	(3)	(4)	(5)	(6)
I.	Public Employees Contributory					
	A. Local Government	76,142	37,617	113,759	389	114,148
	B. State and School	202,615	117,575	320,190	2,474	322,664
	C. Subtotal	278,757	155,192	433,949	2,863	436,812
II.	Public Employees Noncontributory					
	A. Local Government	597,823	249,489	847,312	0	847,312
	B. State and School	3,813,069	1,625,370	5,438,439	0	5,438,439
	C. Subtotal	4,410,892	1,874,859	6,285,751	0	6,285,751
III.	Public Safety Contributory					
	A. State	31,559	19,863	51,422	1,775	53,196
	B. Other Division A	75,768	36,247	112,015	1,033	113,048
	C. Salt Lake City	21,453	14,600	36,053	415	36,468
	D. Provo	12,134	5,107	17,241	44	17,285
	E. Logan	6,504	2,489	8,993	7	9,000
	F. Other Division B	17,954	6,274	24,228	3	24,231
	G. Subtotal	165,372	84,580	249,952	3,277	253,228
IV.	Public Safety Noncontributory					
	A. State	246,630	89,783	336,413	4	336,417
	B. Other Division A	180,451	63,141	243,592	0	243,592
	C. Salt Lake City	62,015	24,135	86,150	0	86,150
	D. Ogden	25,984	10,664	36,648	86	36,734
	E. Logan	568	195	763	0	763
	F. Bountiful	5,876	2,110	7,986	16	8,001
	G. Other Division B	31,216	10,298	41,514	0	41,514
	H. Subtotal	552,740	200,326	753,066	106	753,171
V.	Firefighters					
	A. Division A	23,584	9,902	33,486	172	33,658
	B. Division B	211,317	107,540	318,857	3,003	321,860
	C. Subtotal	234,901	117,442	352,343	3,175	355,518
VI.	Judges	36,241	20,122	56,363	0	56,363
VII.	Governors and Legislative	3,432	1,710	5,142	0	5,142
VIII	. Grand Total	5,682,335	2,454,231	8,136,566	9,421	8,145,985

Notes: Amounts shown are in \$ thousands

## **Normal Cost**

	Fund/Division (1)	Retirement (2)	Deferred Termination (3)	Disability (4)	Refunds (5)	Death (6)	<u>Total</u> (7)
I.	Public Employees Contributory			0.4054			
	<ul><li>A. Local Government</li><li>B. State and School</li></ul>	7.05% 6.53%	1.23%	0.40% 0.33%	1.33% 1.75%	0.22% 0.18%	10.23% 9.80%
II.	Public Employees Noncontributory						
	A. Local Government	8.14%	1.65%	0.48%	0.00%	0.22%	10.49%
	B. State and School	9.37%	1.39%	0.42%	0.00%	0.20%	11.38%
III.	Public Safety Contributory						
	A. State	18.28%	0.60%	1.14%	1.02%	0.45%	21.49%
	B. Other Division A	18.17%	0.51%	0.78%	1.28%	0.32%	21.06%
	C. Salt Lake City	18.24%	0.46%	0.67%	1.48%	0.40%	21.25%
	D. Provo	18.30%	0.50%	0.79%	1.39%	0.48%	21.46%
	E. Logan	18.09%	0.46%	0.60%	1.33%	0.38%	20.86%
	F. Other Division B	18.22%	0.48%	0.73%	1.16%	0.45%	21.04%
IV.	Public Safety Noncontributory						
	A. State	18.36%	0.84%	0.87%	0.00%	0.35%	20.42%
	B. Other Division A	18.22%	0.80%	0.77%	0.00%	0.32%	20.11%
	C. Salt Lake City	18.24%	0.77%	0.75%	0.00%	0.45%	20.21%
	D. Ogden	18.22%	0.78%	0.78%	0.00%	0.47%	20.25%
	E. Logan	18.55%	0.78%	0.73%	0.00%	0.44%	20.50%
	F. Bountiful	18.28%	0.80%	0.78%	0.00%	0.33%	20.19%
	G. Other Division B	18.23%	0.78%	0.79%	0.00%	0.48%	20.28%
V.	Firefighters						
	A. Division A	20.93%	0.26%	1.64%	0.75%	0.44%	24.02%
	B. Division B	21.01%	0.22%	1.38%	0.81%	0.59%	24.01%
VI.	Judges	23.30%	0.00%	0.00%	0.00%	1.16%	24.46%
VII.	Governors and Legislative	N/A	N/A	N/A	N/A	N/A	N/A

# Net Employer Normal Cost

	Fund/Division	Total Normal Cost	Member Rate	Net Employer Normal Cost
	(1)	(2)	(3)	(4)
I.	Public Employees Contributory			
	A. Local Government	10.23%	6.00%	4.23%
	B. State and School	9.80%	6.00%	3.80%
II.	Public Employees Noncontributory			
	A. Local Government	10.49%	0.00%	10.49%
	B. State and School	11.38%	0.00%	11.38%
III.	Public Safety Contributory			
	A. State	21.49%	12.29%	9.20%
	B. Other Division A	21.06%	12.29%	8.77%
	C. Salt Lake City	21.25%	13.74%	7.51%
	D. Provo	21.46%	13.54%	7.92%
	E. Logan	20.86%	11.13%	9.73%
	F. Other Division B	21.04%	10.50%	10.54%
IV.	Public Safety Noncontributory			
	A. State	20.42%	0.00%	20.42%
	B. Other Division A	20.11%	0.00%	20.11%
	C. Salt Lake City	20.21%	0.00%	20.21%
	D. Ogden	20.25%	0.00%	20.25%
	E. Logan	20.50%	0.00%	20.50%
	F. Bountiful	20.19%	0.00%	20.19%
	G. Other Division B	20.28%	0.00%	20.28%
V.	Firefighters			
	A. Division A	24.02%	15.05%	8.97%
	B. Division B	24.01%	16.71%	7.30%
VI.	Judges	24.46%	0.00%	24.46%
VII.	Governors and Legislative	N/A	N/A	N/A

# **Determination of Actuarial Accrued Liability**

		Actuarial	Actuarial Drag	ant Value of Euture	Normal Costs	Actuarial Accrued
	Fund/Division	Future Renefits	Members	Employers	Total	(2) = (5)
		(2)	(3)	(4)	(5)	(6)
	(1)	(2)	(5)	()	(5)	(0)
I.	Public Employees Contributory					
	A. Local Government	381,549	25,175	17,749	42,924	338,625
	B. State and School	759,134	21,301	13,491	34,792	724,342
	C. Subtotal	1,140,683	46,476	31,240	77,716	1,062,967
II.	Public Employees Noncontributory					
	A. Local Government	3,119,665	0	663,627	663,627	2,456,038
	B. State and School	14,617,264	0	2,428,164	2,428,164	12,189,100
	C. Subtotal	17,736,929	0	3,091,791	3,091,791	14,645,138
ш	Public Safety Contributory					
	A. State	59.061	284	212	496	58,565
	B. Other Division A	209.861	18.657	13.313	31.970	177.890
	C. Salt Lake City	37,380	85	46	131	37,249
	D. Provo	42,188	5,309	3,106	8,415	33,773
	E. Logan	19,908	1,621	1,417	3,038	16,870
	F. Other Division B	65,670	6,992	7,019	14,011	51,658
	G. Subtotal	434,068	32,948	25,113	58,061	376,005
IV.	Public Safety Noncontributory					
	A. State	826,199	0	178,176	178,176	648,024
	B. Other Division A	848,368	0	253,301	253,301	595,066
	C. Salt Lake City	211,184	0	41,612	41,612	169,572
	D. Ogden	61,710	0	9,975	9,975	51,735
	E. Logan	2,750	0	1,608	1,608	1,142
	F. Bountiful	17,269	0	2,519	2,519	14,750
	G. Other Division B	161,965	0	49,278	49,278	112,688
	H. Subtotal	2,129,445	0	536,469	536,469	1,592,977
V.	Firefighters					
	A. Division A	139,634	36,637	21,837	58,474	81,160
	B. Division B	735,229	120,139	52,484	172,623	562,605
	C. Subtotal	874,863	156,776	74,321	231,097	643,765
VI.	Judges	137,866	0	20,739	20,739	117,127
VII.	Governors and Legislative	9,661	0	449	449	9,212
VIII	. Grand Total	22,463,515	236,200	3,780,122	4,016,322	18,447,191

Notes: Amounts shown are in \$ thousands

		Ina	ctive Members		Ac	tive Members	
	E 10	Accumulated Member	Employer	T ( )	Accumulated Member Employer		T ( )
	Fund/Division	Contributions	Financed	1 otal	Contributions	Financed	$\frac{10tal}{(7)}$
	(1)	(2)	(3)	(4)	(3)	(0)	(7)
I.	Public Employees Contributory						
	A. Local Government	27,070	3,743	30,813	87,754	105,910	193,664
	B. State and School	54,457	9,677	64,134	147,211	190,333	337,544
	C. Subtotal	81,527	13,420	94,947	234,965	296,243	531,208
II.	Public Employees Noncontributory						
	A. Local Government	36,572	112,906	149,478	130,887	1,328,361	1,459,248
	B. State and School	100,056	367,102	467,158	488,493	5,795,004	6,283,497
	C. Subtotal	136,628	480,008	616,636	619,380	7,123,365	7,742,745
III.	Public Safety Contributory						
	A. State	990	607	1.597	1.719	2.052	3.771
	B. Other Division A	6,197	1,267	7,464	24,906	32,473	57,379
	C. Salt Lake City	45	1	46	342	393	735
	D. Provo	1,158	190	1,348	7,472	7,668	15,140
	E. Logan	228	0	228	3,052	4,591	7,643
	F. Other Division B	1,858	601	2,459	9,285	15,684	24,969
	G. Subtotal	10,476	2,666	13,142	46,776	62,861	109,637
IV.	Public Safety Noncontributory						
	A. State	1,625	13,876	15,501	7,441	288,665	296,106
	B. Other Division A	3,138	14,857	17,995	11,216	322,263	333,479
	C. Salt Lake City	217	1,753	1,970	3,093	78,360	81,453
	D. Ogden	331	620	951	942	13,108	14,050
	E. Logan	0	1	1	0	378	378
	F. Bountiful	4	85	89	366	6,293	6,659
	G. Other Division B	1,398	3,587	4,985	3,826	62,362	66,188
	H. Subtotal	6,713	34,779	41,492	26,884	771,429	798,313
V.	Firefighters						
	A. Division A	908	695	1,603	11,548	34,351	45,899
	B. Division B	2,732	1,074	3,806	69,482	167,458	236,940
	C. Subtotal	3,640	1,769	5,409	81,030	201,809	282,839
VI.	Judges	512	758	1,270	7,697	51,797	59,494
VII.	Governors and Legislative	156	2,168	2,324	3	1,743	1,746
VIII	. Grand Total	239,652	535,568	775,220	1,016,735	8,509,247	9,525,982

## Actuarial Accrued Liability Details of Member and Employer Financing

Notes: Amounts shown are in \$ thousands

#### Utah Retirement Systems Actuarial Valuation – January 1, 2007

				Inactive Members		Members Receiving Benefits		senefits		
	Fund/Division	Active	Disabled	Vested	Nonvested	Regular Retirees	Disabled Retirees	Beneficiaries	Total	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
I.	Public Employees Contributory									
	A. Local Government	1,433	19	785	621	1,015	58	293	4,224	
	B. State and School	1,531	57	871	19	3,324	160	837	6,799	
	C. Subtotal	2,964	76	1,656	640	4,339	218	1,130	11,023	
П.	Public Employees Noncontributory									
	A. Local Government	18,795	195	8,275	480	4,018	131	381	32,275	
	B. State and School	69,165	688	23,858	1,324	21,208	533	1,595	118,371	
	C. Subtotal	87,960	883	32,133	1,804	25,226	664	1,976	150,646	
Ш.	Public Safety Contributory									
	A. State	15	0	30	17	191	16	134	403	
	B. Other Division A	387	0	267	81	402	12	142	1,291	
	C. Salt Lake City	2	0	5	1	122	13	53	196	
	D. Provo	91	0	25	12	42	0	11	181	
	E. Logan	40	0	9	1	25	1	2	78	
	F. Other Division B	158	2	63	21	70	5	11	330	
	G. Subtotal	693	2	399	133	852	47	353	2,479	
IV.	Public Safety Noncontributory									
	A. State	2,510	18	952	2	893	22	71	4,468	
	B. Other Division A	3,063	17	1,165	1	649	16	55	4,966	
	C. Salt Lake City	452	1	84	0	185	5	27	754	
	D. Ogden	114	1	42	0	110	1	26	294	
	E. Logan	19	0	1	0	1	0	0	21	
	F. Bountiful	33	0	8	0	24	0	3	68	
	G. Other Division B	549	5	181	3	106	4	7	855	
	H. Subtotal	6,740	42	2,433	6	1,968	48	189	11,426	
V.	Firefighters									
	A. Division A	420	0	90	27	75	16	12	640	
	B. Division B	1,270	0	109	89	661	62	195	2,386	
	C. Subtotal	1,690	0	199	116	736	78	207	3,026	
VI.	Judges	110	0	5	0	56	0	31	202	
VII.	Governors and Legislative	89	0	102	8	159	0	57	415	
VIII.	Grand Total	100,246	1,003	36,927	2,707	33,336	1,055	3,943	179,217	

### Number of Members

	Fund/Division (1)	Number (2)	Total Compensation \$ Thousands (3)	Average Compensation (\$'s) (4)	Accumulated Member Contributions With Interest \$ Thousands (5)	Average Age (6)	Average Service (7)
т	Public Employees Contributory			× /			
1.	A. Local Government B. State and School	1,433 1,531	60,320 67,268	42,094 43,938	87,754 147,211	48.2 54.2	14.5 24.5
	C. Subtotal	2,964	127,588	43,046	234,965	51.3	19.7
II.	Public Employees Noncontributory A. Local Government B. State and School C. Subtotal	18,795 69,165 87,960	753,247 2,531,048 3,284,295	40,077 36,594 37,339	130,887 488,493 619,380	44.2 44.9 44.7	9.0 10.3 10.0
ш	Public Safety Contributory						
IV.	<ul> <li>A. State</li> <li>B. Other Division A</li> <li>C. Salt Lake City</li> <li>D. Provo</li> <li>E. Logan</li> <li>F. Other Division B</li> <li>G. Subtotal</li> <li>Public Safety Noncontributory</li> <li>A. State</li> <li>B. Other Division A</li> <li>C. Salt Lake City</li> <li>D. Orden</li> </ul>	$ \begin{array}{r} 15\\ 387\\ 2\\ 91\\ 40\\ 158\\ \hline 693\\ 2,510\\ 3,063\\ 452\\ 114\\ \end{array} $	$ \begin{array}{r} 649\\ 17,533\\ 123\\ 4,428\\ 1,856\\ 7,702\\ \hline 32,291\\ 99,440\\ 127,360\\ 24,003\\ 4,981\\ \end{array} $	43,238 45,305 61,695 48,658 46,409 48,747 46,596 39,618 41,580 53,103 43,694	1,719 24,906 342 7,472 3,052 9,285 46,776 7,441 11,216 3,093 942	54.1 40.1 46.0 38.9 39.5 38.1 39.8 40.2 37.4 39.8 37.2	19.8 10.1 20.0 10.2 13.6 10.0 10.5 9.3 8.2 10.7 8.8
	E. Logan F. Bountiful G. Other Division B H. Subtotal		4,581 586 1,603 24,982 282,955	40,004 30,839 48,568 45,505 41,981	0 366 3,826 26,884	30.7 41.9 37.6 38.6	2.2 12.4 7.8 8.8
v.	A. Division A B. Division B C. Subtotal	420 1,270 1,690	19,775 67,314 87,089	47,083 53,003 51,532	11,548 69,482 81,030	38.5 40.1 39.7	7.2 11.6 10.5
VI.	Judges	110	12,336	112,143	7,697	56.4	11.8
VII.	Governors and Legislative	89	797	8,955	3	52.3	6.6
VIII.	. Grand Total	100,246	3,827,351	38,180	1,016,735	44.4	10.2

# Active Membership Statistics

<b>Retired Member Statistics</b>
(Including Disabled Retirees and Beneficiaries)

			Annual Total Benefits	Average Monthly Benefit
	Fund/Division	Number	(\$ Thousands)	(\$'s)
	(1)	(2)	(3)	(4)
I.	Public Employees Contributory			
	A. Local Government	1,366	12,389	756
	B. State and School	4,321	40,670	784
	C. Subtotal	5,687	53,059	777
II.	Public Employees Noncontributory			
	A. Local Government	4,530	72,911	1,341
	B. State and School	23,336	459,277	1,640
	C. Subtotal	27,866	532,188	1,592
III.	Public Safety Contributory			
	A. State	341	5,589	1,366
	B. Other Division A	556	9,857	1,477
	C. Salt Lake City	188	3,733	1,655
	D. Provo	53	1,407	2,212
	E. Logan	28	692	2,061
	F. Other Division B	86	1,742	1,688
	G. Subtotal	1,252	23,020	1,532
IV.	Public Safety Noncontributory			
	A. State	986	25,903	2,189
	B. Other Division A	720	18,333	2,122
	C. Salt Lake City	217	6,511	2,500
	D. Ogden	137	2,917	1,774
	E. Logan	1	53	4,406
	F. Bountiful	27	618	1,907
	G. Other Division B	117	2,959	2,107
	H. Subtotal	2,205	57,294	2,165
V.	Firefighters			
	A. Division A	103	2,484	2,010
	B. Division B	918	25,828	2,345
	C. Subtotal	1,021	28,312	2,311
VI.	Judges	87	5,145	4,928
VII.	Governors and Legislative	216	604	233
VIII	I. Grand Total	38,334	699,622	1,521

### Market Value of Assets (All Retirement Systems Combined)

Item		December 31, 2006	December 31, 2005
(1)		(2)	(3)
1. Cash		2,448	90
2. Receivables:			
a. Member contribu	tions	1,021	976
b. Employer contrib	outions	33,353	28,977
c. Fire insurance pro court fees	emium tax &	124	142
d. Investments		_267,411	753,430
e. Total		301,909	783,525
3. Investments			
a. Short-term securi	ties – domestic	2,057,390	1,172,613
b. Short-term securi	ties - international	105,123	151,274
c. Bonds - domestic	;	3,618,385	3,435,532
d. Bonds - internation	onal	939,478	865,295
e. Equities - domest	ic	6,413,229	6,384,323
f. Equities - interna	tional	3,390,880	3,676,190
g. Alternative inves	tments	2,200,222	611,589
h. Real estate		3,329,763	2,353,373
i. Mortgage loans		6,848	6,864
j. Total		21,861,318	18,656,953
4. Other		2,193,733	2,384,022
5. Total assets		24,359,408	21,824,590
6. Liabilities			
a. Securities lending	g liability	(2,191,701)	(2,381,012)
b. Other accounting	liabilities	(2,324,185)	(1,973,800)
c. Reserves		(13,893)	(11,629)
d. Total		(4,529,779)	(4,366,441)
7. Net assets		19,829,629	17,458,149

#### Note: Assets exclude 401(k) and 457 plans

Amounts shown are in \$ thousands

Amounts shown are from the December 31, 2006 Comprehensive Annual Financial Report and may differ from other numbers contained in this report due to rounding.

#### Utah Retirement Systems Actuarial Valuation – January 1, 2007

	Fund/Division	MVA as of Dec. 31, 2005	Contributions	Benefits and Refunds	Earnings, Net of Expenses	Transfers	MVA as of Dec. 31, 2006
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
I.	Public Employees Contributory A. Local Government B. State and School C. Subtotal	313,201 705,325 1,018,526	8,726 11,545 20,271	(13,796) (46,543) (60,338)	44,863 98,574 143,437	(205) (6,276) (6,481)	352,789 762,625 1,115,414
11.	Public Employees Noncontributory A. Local Government B. State and School C. Subtotal	2,331,841 11,420,087 13,751,928	90,806 349,935 440,741	(74,584) (461,305) (535,889)	337,384 1,640,920 1,978,304	(1,662) 21,762 20,101	2,683,786 12,971,399 15,655,185
III.	Public Safety Contributory         A.       State         B.       Other Division A         C.       Salt Lake City         D.       Provo         E.       Logan         F.       Other Division B         G.       Subtotal	$61,918 \\ 176,964 \\ 41,659 \\ 28,580 \\ 15,656 \\ 42,895 \\ 367,673$	173 4,034 44 1,279 455 <u>1,938</u> 7,922	$(6,165) \\ (10,833) \\ (4,138) \\ (1,543) \\ (748) \\ (1,721) \\ (25,148)$	8,690 24,796 5,762 4,087 2,243 6,296 51,874	1,314 (2,448) 343 (84) 58 1,003 187	65,930 192,513 43,670 32,319 17,664 50,412 402,509
IV.	Public Safety NoncontributoryA.StateB.Other Division AC.Salt Lake CityD.OgdenE.LoganF.BountifulG.Other Division BH.Subtotal	568,310 533,794 118,341 44,304 767 14,242 89,015 1,368,775	24,291 26,607 8,392 1,400 125 327 5,968 67,110	(26,451) (18,414) (6,458) (3,083) (54) (569) (2,878) (57,907)	81,701 77,639 17,130 6,246 109 2,046 13,037 197,907	1,119 1,539 19 (305) (34) 209 550 3,097	648,970 621,166 137,424 48,562 913 16,255 105,693 1,578,982
V.	Firefighters A. Division A B. Division B C. Subtotal	76,788 609,274 686,062	4,107 13,170 17,277	(2,571) (27,039) (29,610)	11,207 87,015 98,222	932 893 1,825	90,462 683,313 773,774
VI.	Judges	113,353	2,728	(5,250)	16,227	1,242	128,300
VII.	Governors and Legislative	11,321	0	(760)	1,584	18	12,163
VIII.	3% Substantial Substitute	140,512	22,326	(124)	20,572	(19,988)	163,298
IX.	Grand Total	17,458,148	578,374	(715.025)	2,508,128	0	19,829,625

# **Reconciliation of Market Value of Assets (MVA)**

Notes: Amounts shown are in \$ thousands

### **Investment Return Rates for Prior Year**

	Basis o	f Assets
	Market Value	Actuarial Value
	(1)	(2)
1. Beginning of year assets	17,458,149	16,415,380
2. Contributions to fund during year	578,374	578,374
3. Benefit payments during year (including refunds of contributions)	(715,025)	(715,025)
4. Transfers to and (from) URS	0	0
5. Investment income, net of investment and administrative expenses	2,508,127	1,814,761
6. End of year assets	19,829,625	18,093,490
7. Investment return rate	14.4%	11.1%

Note: Amounts shown are in \$ thousands

Year	Return on Market Value	Return on Actuarial Value
(1)	(2)	(3)
1991	21.5%	11.4%
1992	4.3%	10.5%
1993	15.7%	13.8%
1994	0.0%	8.8%
1995	21.4%	11.6%
1996	14.7%	11.7%
1997	15.8%	13.7%
1998	9.4%	12.6%
1999	16.3%	14.7%
2000	1.8%	11.2%
2001	-5.3%	6.8%
2002	-8.0%	-1.5%
2003	25.6%	8.0%
2004	13.7%	5.3%
2005	9.2%	7.4%
2006	14.4%	11.1%
Average return		
Last 5 years:	10.4%	6.0%
Last 10 years:	8.8%	8.8%
Last 15 years:	9.5%	9.6%

# **Summary of Investment Return Rates**

### Calculation of Actuarial Value of Assets (All Retirement Systems Combined)

#### 1. Market value of assets

#### 19,829,625

18,093,490

2. Adjustments to smooth asset values based on

excess/shortfall of expected investment income for:

Year	Total <u>Excess/(Shortfall)</u>	Weight Subtracted	Weighted <u>Amount</u>
a. 2006	1,116,942	80%	893,553
b. 2005	199,197	60%	119,518
c. 2004	804,061	40%	321,625
d. 2003	2,007,188	20%	401,438
e. 2002	(2,009,531)	0%	0
f. Total			1,736,135
	1 1 6 4 (1	20	
3. Preliminary acti	uarial value of assets (1-	21)	

4. Corridor Limits	
a. 80% of market value	15,863,700
b. 120% of market value	23,795,550
c. Actuarial value (Item 3, not more than 4b, not less than 4a)	18,093,490
5. Ratio of actuarial value to market value	91.2%

Note: Amounts shown are in \$ thousands

		Market Value of Assets (MVA) at January 1, 2007		Actuarial Value of Assets (AVA) at January 1, 2007			
		MVA Before	Transfer	MVA After	AVA Before	Transfer	AVA After
	Fund/Division	Transfer	Amount	Transfer	Transfer	Amount	Transfer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
I.	Public Employees Contributory						
	A. Local Government	352,789	(2,906)	349,883	321,722	(2,650)	319,072
	B. State and School	762,625	(6,618)	756,007	691,380	(6,000)	685,380
	C. Subtotal	1,115,414	(9,524)	1,105,890	1,013,102	(8,650)	1,004,452
II.	Public Employees Noncontributory						
	A. Local Government	2,683,786	2,906	2,686,692	2,453,220	2,650	2,455,870
	B. State and School	12,971,399	6,618	12,978,017	11,834,075	6,000	11,840,075
	C. Subtotal	15,655,185	9,524	15,664,709	14,287,295	8,650	14,295,945
III.	Public Safety Contributory						
	A. State	65,930	(1,330)	64,600	59,414	(1,199)	58,215
	B. Other Division A	192,513	(606)	191,907	174,858	(550)	174,308
	C. Salt Lake City	43,670	(2,562)	41,108	39,344	(2,308)	37,036
	D. Provo	32,319	0	32,319	29,473	0	29,473
	E. Logan	17,664	(42)	17,622	16,094	(38)	16,056
	F. Other Division B	50,412	533	50,945	46,210	490	46,700
	G. Subtotal	402,509	(4,007)	398,502	365,393	(3,605)	361,788
IV.	Public Safety Noncontributory						
	A. State	648,970	1,330	650,300	592,826	1,199	594,025
	B. Other Division A	621,166	606	621,772	568,367	550	568,917
	C. Salt Lake City	137,424	2,562	139,986	125,756	2,308	128,064
	D. Ogden	48,562	0	48,562	44,077	0	44,077
	E. Logan	913	42	955	844	38	882
	F. Bountiful	16,255	0	16,255	14,838	0	14,838
	G. Other Division B	105,693	(533)	105,160	97,098	(490)	96,608
	H. Subtotal	1,578,982	4,007	1,582,989	1,443,806	3,605	1,447,411
V.	Firefighters						
	A. Division A	90,462	0	90,462	82,969	0	82,969
	B. Division B	683,313	0	683,313	622,082	0	622,082
	C. Subtotal	773,774	0	773,774	705,051	0	705,051
VI.	Judges	128,300	0	128,300	116,879	0	116,879
VII.	Governors and Legislative	12,163	0	12,163	10,983	0	10,983
VIII.	3% Substantial Substitute	163,298	0	163,298	150,983	0	150,983
IX.	Grand Total	19,829,625	0	19,829,625	18,093,492	0	18,093,492

#### **Transfer Adjustments to Asset Values**

Notes: Amounts shown are in \$ thousands

## Actuarially Determined Contribution Rate for 3% Substantial Substitute

1.	Actu	uarial accrued liability, all funds combined	
	a.	Retirees	237,137
	b.	Inactives	13,062
	c.	Actives	188,724
	d.	Total	438,923
2.	Acti	uarial value of assets	150,983
3.	Unf	unded actuarial accrued liability	287,940
4.	Cov	rered compensation of state funds that will pay for benefit	2,794,669
5.	Calo	culated rate (20-year funding period and 4.00% PGR)	0.73%
	Not	es: Amounts shown are in \$ thousands	

		Retirees and	Inactive	Active		
	Fund/Division	Beneficiaries	Members	Members	Total	
	(1)	(2)	(3)	(4)	(5)	
I.	Public Employees Contributory					
	A. Local Government	3,361	739	5,640	9,739	
	B. State and School	9,582	1,895	11,167	22,644	
	C. Subtotal	12,943	2,634	16,807	32,383	
II.	Public Employees Noncontributory					
	A. Local Government	23,923	2,222	25,835	51,979	
	B. State and School	158,792	7,239	125,644	291,674	
	C. Subtotal	182,715	9,461	151,479	343,653	
III.	Public Safety Contributory					
	A. State	1,534	46	128	1,708	
	B. Other Division A	3,270	145	1,188	4,604	
	C. Salt Lake City	1,081	0	26	1,107	
	D. Provo	517	22	276	815	
	E. Logan	270	0	122	392	
	F. Other Division B	725	31	317	1,072	
	G. Subtotal	7,397	244	2,057	9,698	
IV.	Public Safety Noncontributory					
	A. State	9,840	227	4,262	14,328	
	B. Other Division A	7,124	209	3,841	11,174	
	C. Salt Lake City	2,533	23	1,276	3,832	
	D. Ogden	1,096	21	208	1,325	
	E. Logan	23	0	0	23	
	F. Bountiful	240	2	132	373	
	G. Other Division B	1,222	102	872	2,196	
	H. Subtotal	22,078	584	10,591	33,251	
V.	Firefighters					
	A. Division A	901	29	758	1,688	
	B. Division B	9,356	48	5,567	14,971	
	C. Subtotal	10,257	77	6,325	16,659	
VI.	Judges	1,616	19	1,448	3,083	
VII.	Governors and Legislative	133	45	19	197	
VIII	. Grand Total	237,139	13,064	188,726	438,924	

### Liabilities for 3% Substantial Substitute

Notes: Amounts shown are in \$ thousands Columns may not add to total due to rounding

### Historical Summary of Statistical Data Public Employees Retirement System (Contributory)

							Retirement			
							Benefits in	Average		
Plan Year					Covered		Force Annual	Retiree	Market Value of	Actuarial Value
Beginning		Participa	ant Counts		Payroll	Average	Amount	Monthly	Assets	of Assets
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1990	20,773	8,984	13,029	42,786	428,720	20,638	55,504	355	Not Available	954,900
1991	15,784	892	12,331	29,007	340,524	21,574	56,673	383	803,332	796,016
1992	12,430	1,629	12,275	26,334	287,907	23,162	57,306	389	867,300	785,115
1993	11,405	1,497	11,858	24,760	283,299	24,840	57,608	405	833,053	800,806
1994	10,826	1,733	11,444	24,003	280,655	25,924	57,861	421	929,993	880,979
1995	10,421	1,805	11,115	23,341	284,657	27,316	58,345	437	922,155	935,845
1996	6,954	2,028	10,645	19,627	195,717	28,145	58,238	456	919,007	852,034
1997	4,673	1,906	10,176	16,755	135,083	28,907	57,770	473	859,304	772,977
1998	4,396	1,975	9,724	16,095	134,341	30,560	57,496	493	916,532	809,388
1999	4,144	2,089	9,208	15,441	133,440	32,201	56,599	512	927,169	840,215
2000	3,967	2,134	8,717	14,818	133,615	33,682	55,716	533	974,834	878,190
2001	3,827	2,149	8,264	14,240	134,816	35,228	56,264	567	936,798	924,573
2002	3,703	2,262	7,822	13,787	137,721	37,192	55,569	592	827,741	927,523
2003	3,608	2,269	7,375	13,252	137,743	38,177	54,765	619	749,408	899,290
2004	3,444	2,293	6,916	12,653	134,144	38,950	53,815	648	873,520	913,948
2005	3,318	2,285	6,550	12,153	134,810	40,630	53,630	682	971,242	933,974
2006	3,140	2,321	5,963	11,424	131,437	41,859	51,646	722	1,014,414	951,540
2007	2,964	2,372	5,687	11,023	127,588	43,046	53,059	777	1,105,890	1,004,452

### Historical Summary of Statistical Data Public Employees Retirement System (Noncontributory)

							Retirement			
							Benefits in	Average		
Plan Year					Covered		Force Annual	Retiree	Market Value of	Actuarial Value
Beginning		Participa	ant Counts		Payroll	Average	Amount	Monthly	Assets	of Assets
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1990	43,981	9,783	4,421	58,185	940,325	21,380	56,500	1,064	Not Available	2,100,892
1991	50,245	15,373	5,206	70,824	1,061,835	21,133	68,032	1,089	2,618,017	2,594,245
1992	58,836	8,042	6,114	72,992	1,329,925	22,604	76,871	1,048	3,345,871	3,041,640
1993	59,739	7,911	7,023	74,673	1,425,612	23,864	89,557	1,063	3,609,761	3,480,582
1994	63,448	9,507	8,025	80,980	1,536,528	24,217	104,731	1,088	4,258,021	4,039,120
1995	67,698	10,131	9,143	86,972	1,688,967	24,949	121,850	1,111	4,312,948	4,372,190
1996	69,922	12,413	10,458	92,793	1,862,940	26,643	142,838	1,138	5,497,373	5,128,203
1997	73,478	13,965	11,841	99,284	2,048,876	27,884	166,432	1,171	6,547,598	5,954,796
1998	76,728	15,383	13,242	105,353	2,231,957	29,089	192,723	1,213	7,711,808	6,896,740
1999	77,360	17,494	14,645	109,499	2,343,986	30,300	220,230	1,253	8,560,909	7,894,249
2000	80,639	18,630	16,163	115,432	2,486,200	30,831	248,366	1,281	10,112,606	9,186,463
2001	81,850	20,357	17,728	119,935	2,611,413	31,905	280,910	1,320	10,367,596	10,294,444
2002	83,690	27,385	19,145	130,220	2,801,564	33,475	314,821	1,370	9,848,682	11,021,828
2003	83,925	26,664	20,623	131,212	2,888,853	34,422	351,690	1,421	8,963,388	10,756,065
2004	84,039	28,673	22,202	134,914	2,915,008	34,686	388,305	1,457	11,191,566	11,551,092
2005	85,502	30,498	23,782	139,782	3,058,487	35,771	426,813	1,496	12,639,732	12,093,408
2006	86,502	33,035	25,446	144,983	3,121,800	36,089	466,287	1,527	13,756,039	12,935,862
2007	87,960	34,820	27,866	150,646	3,284,295	37,339	532,188	1,592	15,664,709	14,295,945

### Historical Summary of Statistical Data Public Safety Retirement System (Contributory)

							Retirement			
							Benefits in	Average		
Plan Year					Covered		Force Annual	Retiree	Market Value of	Actuarial Value
Beginning		Participa	ant Counts		Payroll	Average	Amount	Monthly	Assets	of Assets
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1990	2,612	713	1,194	4,519	65,978	25,260	13,139	917	Not Available	330,407
1991	1,641	520	1,190	3,351	42,496	25,896	13,530	948	240,788	241,347
1992	1,644	709	1,237	3,590	44,469	27,049	14,290	963	289,472	263,237
1993	1,591	705	1,251	3,547	44,934	28,244	14,860	990	295,915	285,043
1994	1,601	714	1,273	3,588	46,728	29,187	15,373	1,006	326,536	311,148
1995	1,280	568	1,294	3,142	38,571	30,134	16,087	1,036	284,198	289,572
1996	971	525	1,321	2,817	30,304	31,209	17,323	1,093	310,209	291,478
1997	952	543	1,322	2,817	31,940	33,550	17,735	1,118	335,065	304,699
1998	1,006	531	1,340	2,877	34,262	34,058	18,487	1,150	364,531	324,488
1999	855	498	1,344	2,697	29,704	34,742	19,147	1,187	347,477	316,739
2000	804	486	1,333	2,623	28,957	36,016	19,351	1,210	363,654	327,635
2001	794	479	1,243	2,516	30,021	37,810	18,611	1,248	331,370	326,949
2002	795	503	1,257	2,555	30,783	38,721	19,480	1,291	293,617	328,959
2003	789	502	1,250	2,541	31,501	39,925	20,222	1,348	269,041	322,275
2004	759	519	1,249	2,527	31,688	41,749	20,759	1,385	316,514	331,432
2005	740	522	1,241	2,503	32,446	43,846	21,202	1,424	352,753	339,304
2006	698	526	1,256	2,480	31,443	45,047	22,127	1,468	368,717	345,699
2007	693	534	1,252	2,479	32,291	46,596	23,020	1,532	398,502	361,788

### Historical Summary of Statistical Data Public Safety Retirement System (Noncontributory)

							Retirement			
							Benefits in	Average		
Plan Year					Covered		Force Annual	Retiree	Market Value of	Actuarial Value
Beginning		Participa	ant Counts		Payroll	Average	Amount	Monthly	Assets	of Assets
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1990	1,512	32	15	1,559	37,798	24,999	229	917	Not Available	330,407
1991	2,697	154	65	2,916	68,205	25,290	997	1,278	136,287	132,275
1992	3,006	174	120	3,300	76,914	25,587	1,939	1,346	179,950	162,737
1993	3,198	185	175	3,558	85,678	26,791	2,935	1,398	200,668	193,301
1994	3,289	198	238	3,725	89,839	27,315	4,272	1,496	251,536	236,786
1995	3,899	360	304	4,563	111,292	28,544	5,684	1,558	297,278	300,101
1996	4,455	555	395	5,405	130,552	29,305	7,596	1,603	409,217	379,132
1997	4,720	614	492	5,826	149,086	31,586	9,870	1,672	496,197	450,407
1998	5,033	664	592	6,289	161,826	32,153	12,068	1,699	606,326	542,680
1999	5,427	752	747	6,926	180,904	33,334	15,603	1,741	726,304	672,062
2000	5,735	865	882	7,482	196,271	34,223	18,504	1,748	898,266	818,697
2001	5,974	832	1,118	7,924	212,442	35,561	23,428	1,746	964,708	960,047
2002	6,120	1,464	1,326	8,910	225,760	36,889	28,907	1,817	936,286	1,047,507
2003	6,228	1,733	1,462	9,423	237,192	38,085	33,444	1,906	855,508	1,027,160
2004	6,324	1,915	1,617	9,856	243,745	38,543	38,614	1,990	1,087,654	1,117,457
2005	6,428	2,093	1,808	10,329	257,241	40,019	44,508	2,051	1,241,290	1,185,601
2006	6,556	2,283	2,038	10,877	263,905	40,254	51,112	2,090	1,367,735	1,287,322
2007	6,740	2,481	2,205	11,426	282,955	41,981	57,294	2,165	1,582,989	1,447,411

## Historical Summary of Statistical Data Firefighters Retirement System

							Retirement			
							Benefits in	Average		
Plan Year					Covered		Force Annual	Retiree	Market Value of	Actuarial Value
Beginning		Participa	ant Counts		Payroll	Average	Amount	Monthly	Assets	of Assets
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1990	993	76	544	1,613	28,661	28,863	6,626	1,015	Not Available	149,672
1991	1,024	66	553	1,643	30,649	29,932	7,134	1,075	163,428	161,945
1992	1,047	82	575	1,704	33,232	31,740	7,672	1,112	202,726	183,352
1993	1,072	89	587	1,748	36,500	34,049	8,209	1,165	211,975	203,985
1994	1,079	100	595	1,774	37,191	34,468	8,678	1,215	247,715	234,501
1995	1,123	103	618	1,844	39,669	35,324	9,811	1,323	249,712	253,304
1996	1,165	116	644	1,925	42,599	36,566	10,397	1,415	315,063	293,816
1997	1,229	123	675	2,027	47,550	38,690	12,049	1,488	362,555	329,475
1998	1,285	130	707	2,122	50,886	39,600	13,747	1,620	421,184	376,178
1999	1,352	156	736	2,244	54,402	40,238	14,940	1,692	460,190	423,405
2000	1,380	160	772	2,312	57,664	41,786	16,112	1,739	532,783	483,373
2001	1,433	173	823	2,429	61,593	42,982	18,163	1,839	540,822	536,503
2002	1,504	179	866	2,549	66,871	44,462	20,008	1,925	508,565	569,151
2003	1,545	197	884	2,626	71,347	46,179	22,246	2,097	461,324	553,589
2004	1,577	222	920	2,719	75,148	47,653	22,859	2,071	570,160	589,502
2005	1,608	237	948	2,793	79,168	49,234	24,242	2,131	637,979	610,688
2006	1,647	294	979	2,920	83,495	50,695	26,064	2,219	686,062	644,496
2007	1,690	315	1,021	3,026	87,089	51,532	28,312	2,311	773,774	705,051

## Historical Summary of Statistical Data Judges Retirement System

							Retirement			
							Benefits in	Average		
Plan Year					Covered		Force Annual	Retiree	Market Value of	Actuarial Value
Beginning		Participa	ant Counts		Payroll	Average	Amount	Monthly	Assets	of Assets
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Pay	(\$ Thousands)	Benefit	(\$ Thousands)	(\$ Thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1990	90	0	50	140	5,283	58,700	826	1,015	Not Available	19,127
1991	87	0	46	133	5,867	67,438	827	1,499	22,432	22,242
1992	89	0	53	142	6,267	70,416	1,087	1,710	28,765	26,167
1993	80	1	62	143	6,434	80,424	1,597	2,147	31,388	30,254
1994	85	1	68	154	6,897	81,142	1,930	2,365	37,398	35,479
1995	87	0	70	157	7,263	83,488	2,193	2,610	38,220	38,726
1996	98	3	70	171	8,480	86,534	2,309	2,749	47,531	44,304
1997	100	1	69	170	9,202	92,019	2,396	2,894	55,757	50,721
1998	102	1	72	175	9,298	91,158	2,778	3,215	66,299	59,373
1999	103	2	73	178	9,667	93,850	2,970	3,391	73,650	67,998
2000	106	2	73	181	10,150	95,750	3,078	3,514	85,921	78,130
2001	104	4	75	183	10,318	99,208	3,299	3,666	87,731	87,139
2002	106	4	78	188	10,910	102,925	3,608	3,855	82,760	92,649
2003	106	4	77	187	11,095	104,674	3,728	4,035	75,753	90,904
2004	106	5	83	194	11,163	105,311	4,306	4,324	94,467	97,412
2005	108	6	84	198	11,820	109,442	4,431	4,396	105,483	100,814
2006	109	5	85	199	11,721	107,533	4,711	4,618	113,353	106,374
2007	110	5	87	202	12,336	112,143	5,145	4,928	128,300	116,879

							Retirement	Auorogo		
Plan Vear					Covered		Force Annual	Retiree	Market Value of	Actuarial Value
Reginning		Participa	ant Counts		Pavroll	Average	Amount	Monthly	Assets	of Assets
January 1st	Active	Inactive	Retired	Total	(\$ Thousands)	Pay	(\$ Thousands)	Renefit	(\$ Thousands)	(\$ Thousands)
(1)	1100000000000000000000000000000000000	(3)	(4)	(5)	(\$ 1100sunds)	$\frac{1 \text{ ay}}{(7)}$	(\$)	(9)	(10)	(0 110030103)
(1)	(2)	(5)	(+)	$(\mathbf{J})$	(0)	$(\prime)$	(0)	$(\mathcal{I})$	(10)	(11)
1990	76	133	162	371	288	3,789	329	169	Not Available	6,007
1991	57	118	150	325	238	4,172	295	164	6,427	6,355
1992	87	127	173	387	254	2,925	369	178	7,584	6,790
1993	84	120	180	384	246	2,925	396	183	7,443	7,122
1994	93	126	188	407	427	4,593	385	171	8,089	7,683
1995	89	112	196	397	412	4,628	422	180	7,684	7,804
1996	96	111	201	408	439	4,569	445	184	8,788	8,185
1997	75	115	200	390	367	4,892	457	190	9,561	8,636
1998	90	108	208	406	488	5,419	476	191	10,531	9,318
1999	91	99	211	401	495	5,440	504	199	10,976	9,988
2000	94	101	221	416	511	5,437	531	200	12,159	10,946
2001	86	96	218	400	478	5,557	536	205	11,724	11,569
2002	94	107	228	429	601	6,391	562	206	10,448	11,710
2003	94	105	231	430	592	6,297	585	211	8,932	10,719
2004	100	110	223	433	610	6,097	573	214	10,390	10,906
2005	97	103	221	421	521	5,374	577	218	11,066	10,650
2006	88	113	224	425	788	8,955	608	226	11,319	10,587
2007	89	110	216	415	797	8,955	604	233	12,163	10,983

## Historical Summary of Statistical Data Legislative and Governors Retirement System

**APPENDIX I** 

#### STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

#### 1. *Investment return rate*:

8.00% per annum, compounded annually, composed of a 3.00% inflation rate and a 5.00% real rate of return, net of administrative and investment expenses.

2. *Active member mortality rates:* 

Active member mortality rates are a function of the member's sex, occupation, and age. These rates were developed based on plan experience. For the Public Safety and Firefighters Systems, 25% of deaths are assumed to be service related. Rates at selected ages are shown:

		Active Male Members	
	Local Government		Public Safety and
Age	and Public Employees	Public Educators	Firefighters <sup>1</sup>
20	.000585	.000150	.000520
25	.000455	.000150	.000520
30	.000520	.000225	.000520
35	.000780	.000225	.000520
40	.000975	.000450	.000715
45	.001235	.000750	.001235
50	.001820	.001500	.002080
55	.003055	.002700	.003250
60	.004940	.004275	.004420
65	.007540	.005400	.005590
70	.010790	.006000	.006695

	Active Fem	ale Members
	Local Government	
Age	and Public Employees	Public Educators
20	.000325	.000420
25	.000325	.000180
30	.000325	.000060
35	.000390	.000180
40	.000520	.000360
45	.000780	.000720
50	.001235	.001080
55	.001820	.001500
60	.002600	.002040
65	.003575	.002820
70	.004745	.003900

<sup>&</sup>lt;sup>1</sup> Males and female combined.

#### 3. *Disability rates*:

Disability rates are a function of the member's sex, occupation, and age. These rates were developed based on plan experience. Rates are applied at all ages. For the Public Safety and Firefighters Systems, 25% of disabilities are assumed to be service related. Rates at selected ages are shown:

		А	ctive Male Memb	pers	
Age	Local Government	Public Employees	Public Educators	Public Safety <sup>1</sup>	Firefighters <sup>1</sup>
20	.000220	.000240	.000120	.000400	.000450
25	.000330	.000360	.000180	.000600	.000675
30	.000660	.000720	.000360	.001200	.001350
35	.000990	.001080	.000540	.001800	.002025
40	.001320	.001440	.000720	.002400	.002700
45	.002200	.002400	.001200	.004000	.004500
50	.002860	.003120	.001560	.005200	.005850
55	.004510	.004920	.002460	.008200	.009225
60	.006160	.006720	.003360	.011200	.012600

		Active Female Members	
Age	Local Government	Public Employees	Public Educators
20	.000220	.000240	.000120
25	.000330	.000360	.000180
30	.000660	.000720	.000360
35	.000990	.001080	.000540
40	.001320	.001440	.000720
45	.002200	.002400	.001200
50	.002860	.003120	.001560
55	.004510	.004920	.002460
60	.006160	.006720	.003360

<sup>&</sup>lt;sup>1</sup> Males and female combined.

#### 4. *Termination rates (for causes other than death, disability or retirement):*

Termination rates are a function of the member's sex, occupation, age and service. These rates were developed based on plan experience. Termination rates are not applied after a member becomes eligible for a reduced or unreduced retirement benefit. Rates at selected ages are shown:

		Active	Male Member	rs - Local Gove	ernment						
		Years of Service									
Age	0	1	2	3	4	5+					
20	0.2262	0.2154	0.1750	0.1219	0.0688	0.1096					
25	0.1884	0.1795	0.1470	0.1016	0.0562	0.0815					
30	0.1588	0.1514	0.1250	0.0873	0.0498	0.0605					
35	0.1373	0.1308	0.1092	0.0793	0.0494	0.0463					
40	0.1235	0.1177	0.1004	0.0778	0.0550	0.0381					
45	0.1184	0.1128	0.0993	0.0834	0.0675	0.0334					
50	0.1228	0.1169	0.1069	0.0972	0.0877	0.0311					
55	0.1383	0.1317	0.1243	0.1206	0.1168	0.0336					
60	0.1452	0.1383	0.1306	0.1266	0.1227	0.0352					
65	0.1525	0.1452	0.1371	0.1329	0.1288	0.0370					
70	0.1670	0.1590	0.1500	0.1455	0.1410	0.0405					

		Active l	Female Membe	ers - Local Go	vernment	
			Years o	f Service		
Age	0	1	2	3	4	5+
20	0.2924	0.2525	0.2220	0.2004	0.1903	0.1881
25	0.2766	0.2262	0.1899	0.1672	0.1586	0.1316
30	0.2572	0.2006	0.1613	0.1386	0.1317	0.0895
35	0.2352	0.1764	0.1365	0.1147	0.1094	0.0618
40	0.2125	0.1547	0.1164	0.0963	0.0925	0.0473
45	0.1922	0.1381	0.1027	0.0844	0.0814	0.0422
50	0.1799	0.1293	0.0966	0.0795	0.0768	0.0421
55	0.1825	0.1319	0.0986	0.0816	0.0795	0.0432
60	0.2066	0.1488	0.1093	0.0905	0.0898	0.0443
65	0.2558	0.1816	0.1286	0.1060	0.1080	0.0453
70	0.3311	0.2309	0.1564	0.1278	0.1338	0.0461

		Active	e Male Membe	rs - Public Em	ployees	
			Years o	f Service		
Age	0	1	2	3	4	5+
20	0.4502	0.3451	0.2749	0.2342	0.2043	0.1639
25	0.3536	0.2884	0.2342	0.1906	0.1520	0.1185
30	0.2903	0.2412	0.1949	0.1531	0.1154	0.0832
35	0.2525	0.2017	0.1573	0.1210	0.0937	0.0578
40	0.2279	0.1673	0.1224	0.0944	0.0832	0.0410
45	0.2067	0.1376	0.0934	0.0743	0.0791	0.0304
50	0.1841	0.1154	0.0752	0.0630	0.0776	0.0243
55	0.1590	0.1038	0.0724	0.0637	0.0772	0.0242
60	0.1322	0.1060	0.0888	0.0794	0.0778	0.0324
65	0.1388	0.1112	0.0933	0.0833	0.0817	0.0340
70	0.1440	0.1154	0.0968	0.0865	0.0848	0.0354

### 4. *Termination rates (continued)*:

	Active Female Members - Public Employees					
	Years of Service					
Age	0	1	2	3	4	5+
20	0.3305	0.3401	0.3253	0.2909	0.2521	0.2804
25	0.3044	0.2875	0.2594	0.2262	0.1946	0.1870
30	0.2740	0.2367	0.2012	0.1706	0.1464	0.1187
35	0.2411	0.1909	0.1527	0.1265	0.1087	0.0756
40	0.2088	0.1552	0.1186	0.0963	0.0836	0.0526
45	0.1808	0.1324	0.1004	0.0815	0.0719	0.0405
50	0.1610	0.1218	0.0956	0.0799	0.0733	0.0343
55	0.1524	0.1218	0.1008	0.0890	0.0870	0.0334
60	0.1579	0.1316	0.1136	0.1065	0.1121	0.0375
65	0.1788	0.1514	0.1332	0.1313	0.1492	0.0465
70	0.2153	0.1815	0.1595	0.1634	0.1975	0.0602

### 4. *Termination rates (continued)*:

	Active Male Members - Public Educators					
	Years of Service					
Age	0	1	2	3	4	5+
20	0.1649	0.1585	0.1471	0.0930	0.0390	0.0889
25	0.1498	0.1361	0.1220	0.0871	0.0523	0.0629
30	0.1268	0.1175	0.1025	0.0823	0.0622	0.0430
35	0.1195	0.1027	0.0885	0.0785	0.0685	0.0290
40	0.1130	0.0926	0.0795	0.0756	0.0719	0.0208
45	0.1152	0.0895	0.0744	0.0733	0.0721	0.0162
50	0.1343	0.0958	0.0726	0.0711	0.0696	0.0125
55	0.1764	0.1131	0.0728	0.0685	0.0643	0.0093
60	0.1853	0.1188	0.0765	0.0720	0.0675	0.0098
65	0.1946	0.1248	0.0802	0.0756	0.0709	0.0103
70	0.2131	0.1366	0.0880	0.0828	0.0776	0.0113

	Active Female Members - Public Educators					
	Years of Service					
Age	0	1	2	3	4	5+
20	0.2727	0.2674	0.2532	0.2392	0.1783	0.1920
25	0.2257	0.1962	0.1877	0.1791	0.1449	0.1304
30	0.1587	0.1442	0.1368	0.1292	0.1140	0.0838
35	0.1228	0.1093	0.0970	0.0895	0.0856	0.0521
40	0.1187	0.0885	0.0693	0.0616	0.0622	0.0347
45	0.1135	0.0786	0.0570	0.0468	0.0467	0.0274
50	0.1024	0.0765	0.0590	0.0470	0.0406	0.0245
55	0.0834	0.0804	0.0740	0.0617	0.0447	0.0243
60	0.0877	0.0845	0.0777	0.0648	0.0470	0.0255
65	0.0920	0.0886	0.0816	0.0679	0.0492	0.0268
70	0.0964	0.0929	0.0856	0.0713	0.0517	0.0281

### 4. *Termination rates (continued)*:

	Active Male and Female Members - Public Safety					
	Years of Service					
Age	0	1	2	3	4	5+
20	0.1135	0.0944	0.0694	0.0668	0.0631	0.0869
25	0.0956	0.0771	0.0562	0.0554	0.0524	0.0616
30	0.0912	0.0683	0.0469	0.0452	0.0427	0.0417
35	0.1002	0.0681	0.0410	0.0363	0.0343	0.0274
40	0.1218	0.0757	0.0384	0.0287	0.0271	0.0182
45	0.1542	0.0896	0.0383	0.0227	0.0215	0.0135
50	0.1961	0.1084	0.0404	0.0190	0.0179	0.0115
55	0.2457	0.1308	0.0442	0.0179	0.0169	0.0114
60	0.3022	0.1561	0.0495	0.0198	0.0186	0.0125
65	0.3324	0.1840	0.0565	0.0249	0.0235	0.0145
70	0.3657	0.2146	0.0650	0.0331	0.0313	0.0174

Years of	Active Male and Female Members -		
Service	Firefighters		
0	0.070		
1	0.060		
2	0.050		
3	0.040		
4	0.030		
5	0.020		
6	0.020		
7	0.020		
8	0.020		
9	0.020		
10	0.015		
11	0.015		
12	0.015		
13	0.015		
14	0.015		
15+	0.000		

#### 5. *Refund rates*:

The percent of vested members electing to receive a refund of contributions on termination of employment. This rate is only applied to members of the contributory systems; vested members in the noncontributory systems are assumed to defer their benefits until retirement, even if they have a contribution account from service prior to the establishment of the noncontributory system. The rate is a function of the member's sex, occupation and service. These rates are based on plan experience.

Males						
				Public Safety &		
Service	Local Government	Public Employees	Public Educators	Firefighters		
0-3	100%	100%	100%	100%		
4	75%	86%	75%	76%		
5	73%	83%	73%	74%		
6	70%	80%	70%	71%		
7	67%	78%	66%	69%		
8	65%	77%	61%	67%		
9	62%	75%	57%	65%		
10	61%	73%	54%	57%		
11	59%	70%	50%	50%		
12	58%	68%	47%	42%		
13	55%	66%	42%	40%		
14	52%	65%	38%	37%		
15	49%	63%	33%	35%		
16	48%	61%	28%	33%		
17	46%	60%	22%	31%		
18	45%	58%	17%	29%		
19	23%	29%	09%	15%		
20 or more	00%	00%	00%	00%		

<sup>&</sup>lt;sup>1</sup> Male and female members combined.

## 5. *Refund rates (continued)*:

Females						
Service	Local Government	Public Employees	Public Educators			
0-3	100%	100%	100%			
4	77%	80%	65%			
5	75%	79%	64%			
6	72%	77%	62%			
7	69%	74%	61%			
8	67%	71%	59%			
9	64%	68%	58%			
10	61%	64%	53%			
11	57%	60%	48%			
12	54%	56%	43%			
13	49%	55%	39%			
14	45%	53%	36%			
15	40%	52%	32%			
16	35%	49%	27%			
17	30%	46%	21%			
18	25%	43%	16%			
19	13%	22%	08%			
20 or more	00%	00%	00%			
## 6. *Retirement rates*:

Retirement rates are a function of the member's age, service, sex and occupation. Rates are based on plan experience. Rates are applied only at ages at which the member is eligible for a reduced or unreduced retirement benefit. Members are assumed to retire no later than age 70 (age 65 for the public safety and firefighter systems). Sample rates are shown below. Retirement rates shown for local government, public employees and public educators below age 60 for 25-29 years of service apply only to noncontributory members.

	Local Government - Males						
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
45	0.000	0.000	0.000	0.000	0.000	0.025	0.160
46	0.000	0.000	0.000	0.000	0.000	0.025	0.160
47	0.000	0.000	0.000	0.000	0.000	0.025	0.160
48	0.000	0.000	0.000	0.000	0.000	0.025	0.160
49	0.000	0.000	0.000	0.000	0.000	0.025	0.160
50	0.000	0.000	0.000	0.000	0.000	0.025	0.220
51	0.000	0.000	0.000	0.000	0.000	0.025	0.220
52	0.000	0.000	0.000	0.000	0.000	0.025	0.220
53	0.000	0.000	0.000	0.000	0.000	0.025	0.220
54	0.000	0.000	0.000	0.000	0.000	0.025	0.220
55	0.000	0.000	0.000	0.000	0.000	0.050	0.220
56	0.000	0.000	0.000	0.000	0.000	0.050	0.220
57	0.000	0.000	0.000	0.000	0.000	0.050	0.220
58	0.000	0.000	0.000	0.000	0.000	0.050	0.220
59	0.000	0.000	0.000	0.000	0.000	0.050	0.220
60	0.000	0.000	0.000	0.000	0.100	0.100	0.250
61	0.000	0.000	0.000	0.000	0.100	0.100	0.150
62	0.000	0.000	0.300	0.300	0.250	0.150	0.500
63	0.000	0.000	0.200	0.150	0.150	0.250	0.300
64	0.000	0.000	0.200	0.150	0.150	0.250	0.300
65	0.000	0.200	0.350	0.450	0.450	0.500	0.500
66	0.000	0.200	0.200	0.200	0.200	0.200	0.300
67	0.000	0.200	0.200	0.200	0.200	0.200	0.300
68	0.000	0.200	0.200	0.200	0.200	0.200	0.300
69	0.000	0.200	0.200	0.200	0.200	0.200	0.300
70	0.000	1.000	1.000	1.000	1.000	1.000	1.000

	Public Employees – Males						
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
45	0.000	0.000	0.000	0.000	0.000	0.020	0.140
46	0.000	0.000	0.000	0.000	0.000	0.020	0.140
47	0.000	0.000	0.000	0.000	0.000	0.020	0.140
48	0.000	0.000	0.000	0.000	0.000	0.020	0.140
49	0.000	0.000	0.000	0.000	0.000	0.020	0.140
50	0.000	0.000	0.000	0.000	0.000	0.030	0.160
51	0.000	0.000	0.000	0.000	0.000	0.030	0.160
52	0.000	0.000	0.000	0.000	0.000	0.030	0.160
53	0.000	0.000	0.000	0.000	0.000	0.030	0.160
54	0.000	0.000	0.000	0.000	0.000	0.030	0.160
55	0.000	0.000	0.000	0.000	0.000	0.030	0.180
56	0.000	0.000	0.000	0.000	0.000	0.030	0.180
57	0.000	0.000	0.000	0.000	0.000	0.030	0.180
58	0.000	0.000	0.000	0.000	0.000	0.030	0.180
59	0.000	0.000	0.000	0.000	0.000	0.030	0.180
60	0.000	0.000	0.000	0.000	0.050	0.100	0.230
61	0.000	0.000	0.000	0.000	0.050	0.100	0.230
62	0.000	0.000	0.150	0.200	0.200	0.250	0.400
63	0.000	0.000	0.100	0.150	0.150	0.200	0.350
64	0.000	0.000	0.050	0.100	0.100	0.150	0.300
65	0.000	0.400	0.400	0.400	0.400	0.500	0.500
66	0.000	0.200	0.200	0.200	0.200	0.200	0.350
67	0.000	0.200	0.200	0.200	0.200	0.200	0.200
68	0.000	0.200	0.200	0.200	0.200	0.200	0.200
69	0.000	0.200	0.200	0.200	0.200	0.200	0.200
70	0.000	1.000	1.000	1.000	1.000	1.000	1.000

	Public Educators – Males						
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
45	0.000	0.000	0.000	0.000	0.000	0.010	0.250
46	0.000	0.000	0.000	0.000	0.000	0.010	0.250
47	0.000	0.000	0.000	0.000	0.000	0.010	0.250
48	0.000	0.000	0.000	0.000	0.000	0.010	0.250
49	0.000	0.000	0.000	0.000	0.000	0.010	0.250
50	0.000	0.000	0.000	0.000	0.000	0.010	0.250
51	0.000	0.000	0.000	0.000	0.000	0.010	0.250
52	0.000	0.000	0.000	0.000	0.000	0.010	0.250
53	0.000	0.000	0.000	0.000	0.000	0.010	0.250
54	0.000	0.000	0.000	0.000	0.000	0.010	0.250
55	0.000	0.000	0.000	0.000	0.000	0.020	0.250
56	0.000	0.000	0.000	0.000	0.000	0.020	0.250
57	0.000	0.000	0.000	0.000	0.000	0.020	0.250
58	0.000	0.000	0.000	0.000	0.000	0.020	0.250
59	0.000	0.000	0.000	0.000	0.000	0.020	0.250
60	0.000	0.000	0.000	0.000	0.050	0.050	0.350
61	0.000	0.000	0.000	0.000	0.100	0.100	0.350
62	0.000	0.000	0.150	0.150	0.250	0.250	0.650
63	0.000	0.000	0.100	0.100	0.150	0.150	0.350
64	0.000	0.000	0.050	0.050	0.150	0.150	0.350
65	0.000	0.250	0.250	0.300	0.400	0.500	0.700
66	0.000	0.200	0.200	0.250	0.250	0.250	0.300
67	0.000	0.200	0.200	0.250	0.250	0.250	0.300
68	0.000	0.200	0.200	0.250	0.250	0.250	0.300
69	0.000	0.200	0.200	0.250	0.250	0.250	0.300
70	0.000	1.000	1.000	1.000	1.000	1.000	1.000

	Local Government – Females						
		Years of Service					
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
45	0.000	0.000	0.000	0.000	0.000	0.040	0.300
46	0.000	0.000	0.000	0.000	0.000	0.040	0.300
47	0.000	0.000	0.000	0.000	0.000	0.040	0.300
48	0.000	0.000	0.000	0.000	0.000	0.040	0.300
49	0.000	0.000	0.000	0.000	0.000	0.040	0.300
50	0.000	0.000	0.000	0.000	0.000	0.040	0.300
51	0.000	0.000	0.000	0.000	0.000	0.040	0.300
52	0.000	0.000	0.000	0.000	0.000	0.040	0.300
53	0.000	0.000	0.000	0.000	0.000	0.040	0.300
54	0.000	0.000	0.000	0.000	0.000	0.040	0.300
55	0.000	0.000	0.000	0.000	0.000	0.040	0.350
56	0.000	0.000	0.000	0.000	0.000	0.040	0.350
57	0.000	0.000	0.000	0.000	0.000	0.040	0.350
58	0.000	0.000	0.000	0.000	0.000	0.040	0.350
59	0.000	0.000	0.000	0.000	0.000	0.040	0.350
60	0.000	0.000	0.000	0.000	0.130	0.130	0.400
61	0.000	0.000	0.000	0.000	0.130	0.130	0.250
62	0.000	0.000	0.200	0.250	0.250	0.250	0.450
63	0.000	0.000	0.150	0.200	0.200	0.200	0.300
64	0.000	0.000	0.200	0.250	0.250	0.250	0.300
65	0.000	0.350	0.350	0.350	0.350	0.400	0.500
66	0.000	0.200	0.200	0.200	0.200	0.200	0.300
67	0.000	0.200	0.200	0.200	0.200	0.200	0.300
68	0.000	0.200	0.200	0.200	0.200	0.200	0.300
69	0.000	0.200	0.200	0.200	0.200	0.200	0.300
70	0.000	1.000	1.000	1.000	1.000	1.000	1.000

	Public Employees – Females							
			Ye	ears of Service	e			
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+	
45	0.000	0.000	0.000	0.000	0.000	0.020	0.200	
46	0.000	0.000	0.000	0.000	0.000	0.020	0.200	
47	0.000	0.000	0.000	0.000	0.000	0.020	0.200	
48	0.000	0.000	0.000	0.000	0.000	0.020	0.200	
49	0.000	0.000	0.000	0.000	0.000	0.020	0.200	
50	0.000	0.000	0.000	0.000	0.000	0.030	0.200	
51	0.000	0.000	0.000	0.000	0.000	0.030	0.200	
52	0.000	0.000	0.000	0.000	0.000	0.030	0.200	
53	0.000	0.000	0.000	0.000	0.000	0.030	0.200	
54	0.000	0.000	0.000	0.000	0.000	0.030	0.200	
55	0.000	0.000	0.000	0.000	0.000	0.040	0.200	
56	0.000	0.000	0.000	0.000	0.000	0.040	0.200	
57	0.000	0.000	0.000	0.000	0.000	0.040	0.200	
58	0.000	0.000	0.000	0.000	0.000	0.040	0.200	
59	0.000	0.000	0.000	0.000	0.000	0.040	0.200	
60	0.000	0.000	0.000	0.000	0.150	0.150	0.400	
61	0.000	0.000	0.000	0.000	0.100	0.150	0.300	
62	0.000	0.000	0.200	0.200	0.300	0.300	0.600	
63	0.000	0.000	0.150	0.150	0.250	0.250	0.400	
64	0.000	0.000	0.200	0.200	0.200	0.150	0.300	
65	0.000	0.450	0.450	0.450	0.450	0.450	0.450	
66	0.000	0.250	0.250	0.250	0.250	0.250	0.250	
67	0.000	0.250	0.250	0.250	0.250	0.250	0.250	
68	0.000	0.250	0.250	0.250	0.250	0.250	0.250	
69	0.000	0.250	0.250	0.250	0.250	0.250	0.250	
70	0.000	1.000	1.000	1.000	1.000	1.000	1.000	

	Public Educators – Females						
	Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+
45	0.000	0.000	0.000	0.000	0.000	0.010	0.160
46	0.000	0.000	0.000	0.000	0.000	0.010	0.160
47	0.000	0.000	0.000	0.000	0.000	0.010	0.160
48	0.000	0.000	0.000	0.000	0.000	0.010	0.160
49	0.000	0.000	0.000	0.000	0.000	0.010	0.160
50	0.000	0.000	0.000	0.000	0.000	0.010	0.200
51	0.000	0.000	0.000	0.000	0.000	0.010	0.200
52	0.000	0.000	0.000	0.000	0.000	0.010	0.200
53	0.000	0.000	0.000	0.000	0.000	0.010	0.200
54	0.000	0.000	0.000	0.000	0.000	0.010	0.200
55	0.000	0.000	0.000	0.000	0.000	0.030	0.300
56	0.000	0.000	0.000	0.000	0.000	0.030	0.300
57	0.000	0.000	0.000	0.000	0.000	0.030	0.300
58	0.000	0.000	0.000	0.000	0.000	0.030	0.300
59	0.000	0.000	0.000	0.000	0.000	0.030	0.300
60	0.000	0.000	0.000	0.000	0.150	0.150	0.500
61	0.000	0.000	0.000	0.000	0.150	0.150	0.500
62	0.000	0.000	0.200	0.200	0.200	0.250	0.700
63	0.000	0.000	0.150	0.150	0.150	0.150	0.500
64	0.000	0.000	0.150	0.150	0.150	0.150	0.500
65	0.000	0.450	0.450	0.450	0.450	0.500	0.600
66	0.000	0.300	0.300	0.350	0.350	0.350	0.350
67	0.000	0.300	0.300	0.350	0.350	0.350	0.350
68	0.000	0.300	0.300	0.350	0.350	0.350	0.350
69	0.000	0.300	0.300	0.350	0.350	0.350	0.350
70	0.000	1.000	1.000	1.000	1.000	1.000	1.000

	Public Safety - Males and Females							
		Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+	
45	0.00	0.00	0.00	0.00	0.15	0.15	0.30	
46	0.00	0.00	0.00	0.00	0.15	0.15	0.30	
47	0.00	0.00	0.00	0.00	0.15	0.15	0.30	
48	0.00	0.00	0.00	0.00	0.15	0.15	0.30	
49	0.00	0.00	0.00	0.00	0.15	0.15	0.30	
50	0.00	0.00	0.00	0.00	0.16	0.16	0.33	
51	0.00	0.00	0.00	0.00	0.16	0.16	0.33	
52	0.00	0.00	0.00	0.00	0.16	0.16	0.33	
53	0.00	0.00	0.00	0.00	0.16	0.16	0.33	
54	0.00	0.00	0.00	0.00	0.16	0.16	0.33	
55	0.00	0.00	0.00	0.00	0.18	0.20	0.35	
56	0.00	0.00	0.00	0.00	0.18	0.20	0.35	
57	0.00	0.00	0.00	0.00	0.18	0.20	0.35	
58	0.00	0.00	0.00	0.00	0.18	0.20	0.35	
59	0.00	0.00	0.00	0.00	0.18	0.20	0.35	
60	0.00	0.00	0.12	0.12	0.30	0.30	0.38	
61	0.00	0.00	0.12	0.12	0.30	0.30	0.38	
62	0.00	0.00	0.12	0.12	0.30	0.30	0.38	
63	0.00	0.00	0.12	0.12	0.30	0.30	0.38	
64	0.00	0.00	0.12	0.12	0.30	0.30	0.38	
65	0.00	1.00	1.00	1.00	1.00	1.00	1.00	

	Firefighters - Males and Females							
		Years of Service						
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+	
45	0.00	0.00	0.00	0.00	0.10	0.10	0.14	
46	0.00	0.00	0.00	0.00	0.10	0.10	0.14	
47	0.00	0.00	0.00	0.00	0.10	0.10	0.14	
48	0.00	0.00	0.00	0.00	0.10	0.10	0.14	
49	0.00	0.00	0.00	0.00	0.10	0.10	0.14	
50	0.00	0.00	0.00	0.00	0.12	0.12	0.16	
51	0.00	0.00	0.00	0.00	0.12	0.12	0.16	
52	0.00	0.00	0.00	0.00	0.12	0.12	0.16	
53	0.00	0.00	0.00	0.00	0.12	0.12	0.16	
54	0.00	0.00	0.00	0.00	0.12	0.12	0.16	
55	0.00	0.00	0.00	0.00	0.14	0.14	0.18	
56	0.00	0.00	0.00	0.00	0.14	0.14	0.18	
57	0.00	0.00	0.00	0.00	0.14	0.14	0.18	
58	0.00	0.00	0.00	0.00	0.14	0.14	0.18	
59	0.00	0.00	0.00	0.00	0.14	0.14	0.18	
60	0.00	0.00	0.12	0.16	0.24	0.24	0.24	
61	0.00	0.00	0.12	0.16	0.24	0.24	0.24	
62	0.00	0.00	0.12	0.16	0.24	0.24	0.24	
63	0.00	0.00	0.12	0.16	0.24	0.24	0.24	
64	0.00	0.00	0.12	0.16	0.24	0.24	0.24	
65	0.00	1.00	1.00	1.00	1.00	1.00	1.00	

	Judges - Males and Females							
	Years of Service							
Age	0-3	4-9	10-14	15-19	20-24	25-29	30+	
45	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
46	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
47	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
48	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
49	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
50	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
51	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
52	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
53	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
54	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
55	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
56	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
57	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
58	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
59	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
60	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
61	0.00	0.00	0.00	0.00	0.00	0.05	0.30	
62	0.00	0.00	0.15	0.15	0.15	0.15	0.30	
63	0.00	0.00	0.15	0.15	0.15	0.15	0.30	
64	0.00	0.00	0.15	0.15	0.15	0.15	0.30	
65	0.00	0.00	0.15	0.15	0.15	0.15	0.30	
66	0.00	0.00	0.15	0.15	0.15	0.15	0.30	
67	0.00	0.00	0.15	0.15	0.15	0.15	0.30	
68	0.00	0.00	0.15	0.15	0.15	0.15	0.30	
69	0.00	0.00	0.15	0.15	0.15	0.15	0.30	
70	0.00	1.00	1.00	1.00	1.00	1.00	1.00	

## 7. Salary increase rates:

Salaries for individual members are assumed to increase each year, as a function of the member's occupation and service. Rates are composed of a 3.00% inflation rate, a 1.75% general increase rate that applies to all, and a variable promotional/longevity component that is a function of the member's service.

Activ	Active Male and Female Members - Local Government							
		Total Annual Rate of						
	Annual	Increase Including 3.00%						
Years of	Promotional/Longevity	Inflation Component and 1.75%						
Service	Rates of Increase	General Increase Rate						
0	7.00%	11.75%						
1	4.50	9.25						
2	3.50	8.25						
3	2.50	7.25						
4	2.25	7.00						
5	2.00	6.75						
6	2.00	6.75						
7	1.75	6.50						
8	1.75	6.50						
9	1.50	6.25						
10	1.25	6.00						
11	1.00	5.75						
12	0.75	5.50						
13	0.50	5.25						
14	0.50	5.25						
15 or more	0.00	4.75						

	Active Male and Female Memb	pers - Public Employees
	Annual	Total Annual Rate of Increase Including
Years of	Promotional/Longevity	3.00% Inflation Component and 1.75%
Service	Rates of Increase	General Increase Rate
0	6.00%	10.75%
1	4.50	9.25
2	3.50	8.25
3	3.00	7.75
4	2.50	7.25
5	2.25	7.00
6	1.75	6.50
7	1.50	6.25
8	1.50	6.25
9	1.25	6.00
10	1.25	6.00
11	1.00	5.75
12	0.75	5.50
13	0.75	5.50
14	0.50	5.25
15 or more	0.00	4.75

## 7. Salary increase rates (continued):

	Active Male and Female I	Members Public Educators	
	Annual	Total Annual Rate of Increase Including	
Years of	Promotional/Longevity	3.00% Inflation Component and 1.75%	
Service	Rates of Increase	General Increase Rate	
0	10.25%	15.00%	
1	6.00	10.75	
2	4.50	9.25	
3	4.25	9.00	
4	4.00	8.75	
5	3.75	8.50	
6	3.25	8.00	
7	3.00	7.75	
8	2.75	7.50	
9	2.50	7.25	
10	2.00	6.75	
11	1.75	6.50	
12	1.25	6.00	
13	0.75	5.50	
14	0.25	5.00	
15 or more 0.00		4.75	

# 7. Salary increase rates (continued):

Active Male and Female Members Public Safety		
		Total Annual Rate of
	Annual	Increase Including 3.00% Inflation
Years of	Promotional/Longevity	Component and 1.75%
Service	Rates of Increase	General Increase Rate
0	6.00%	10.75%
1	3.00	7.75
2	2.75	7.50
3	2.50	7.25
4	2.25	7.00
5	2.00	6.75
6	2.00	6.75
7	1.75	6.50
8	1.75	6.50
9	1.50	6.25
10	1.50	6.25
11	1.25	6.00
12	1.00	5.75
13	0.75	5.50
14	0.50	5.25
15 or more	0.00	4.75

Active Male and Female Members Firefighters		
		Total Annual Rate of
	Annual	Increase Including 3.00% Inflation
Years of	Promotional/Longevity	Component and 1.75%
Service	Rates of Increase	General Increase Rate
0	7.00%	11.75%
1	5.75	10.50
2	5.00	9.75
3	4.50	9.25
4	4.00	8.75
5	3.75	8.50
6	3.50	8.25
7	3.50	8.25
8	3.25	8.00
9	3.25	8.00
10	3.00	7.75
11	3.00	7.75
12	2.00	6.75
13	1.00	5.75
14	0.50	5.25
15 or more	0.00	4.75

Retired Male Members			
Age	Local Government, Public Employees and All Beneficiaries (UP94 Males, Setback 2 years)	Public Educators (Based on Plan Experience, Effective January 1, 2005)	Public Safety and Firefighters (UP94 Males, Setback 1 Years)
20	.000495	.000491	.000521
25	.000633	.000640	.000671
30	.000811	.000776	.000838
35	.000912	.000823	.000915
40	.001010	.001038	.001075
45	.001454	.001527	.001568
50	.002260	.002496	.002501
55	.003854	.004282	.004278
60	.006774	.004028	.007623
65	.012335	.005139	.013914
70	.021354	.013480	.023364
75	.033549	.022424	.036614
80	.053991	.044386	.060066
85	.088721	.088040	.096358
90	.136537	.154143	.149949
95	.213325	.233777	.231936

## 8. *Retiree mortality rates (nondisabled retirees):*

Retired Female Members			
Age	Local Government, Public Employees and All Beneficiaries (UP94 Females, Setback 0 Years)	Public Educators (Based on Plan Experience, Effective January 1, 2005)	Public Safety and Firefighters (UP94 Females, Setback 0 Years)
20	.000305	.000274	.000305
25	.000313	.000282	.000313
30	.000377	.000339	.000377
35	.000514	.000463	.000514
40	.000763	.000687	.000763
45	.001046	.000941	.001046
50	.001536	.001382	.001536
55	.002466	.003391	.002466
60	.004773	.004245	.004773
65	.009286	.003924	.009286
70	.014763	.008067	.014763
75	.024393	.012800	.024393
80	.042361	.028558	.042361
85	.072836	.066564	.072836
90	.125016	.124727	.125016
95	.200229	.190840	.200229

Disabled Retired Male and Female Members		
Age	Males	Females
20	.00812	.00652
25	.01073	.00856
30	.01346	.01124
35	.01595	.01372
40	.01890	.01665
45	.02241	.01971
50	.02617	.02338
55	.03082	.02733
60	.03548	.03165
65	.04110	.03659
70	.04775	.04187
75	.06828	.05112
80	.10975	.07611
85	.16042	.11927
90	.22472	.17155
95	.31620	.23810
100	.46667	.33809

## 9. *Disabled annuitant mortality rates:*

#### 10. Actuarial cost method:

The Entry Age Normal actuarial cost method is used. This method is designed to produce a relatively level funding pattern when expressed as a percent of pay.

First, the actuarial present value of all future expected benefits is determined for each member, including retired members, beneficiaries, inactive members and active members. This takes into account both the probability that a benefit will be paid at a given age and the time value of money. The sum of these amounts--the Present Value of Future Benefits (PVFB)--is then determined.

Next, the Entry Age Normal actuarial cost method is used to allocate the PVFB between the current year (the normal cost), prior years (the Actuarial Accrued Liability), and future years (future normal costs). The current and future normal costs are determined as a level percentage of pay.

A portion of the normal cost may be paid by employee contributions in which case the balance becomes the normal cost portion of the employer contribution rate.

The difference between the Actuarial Accrued Liability (the portion of the total actuarial present value of future benefits allocated to prior years) and the Actuarial Value of Assets is called the Unfunded Actuarial Accrued Liability (UAAL). This is funded over 20 years from the valuation date (open period). The funding period is set by the Board of Trustees.

The total employer cost rate is the sum of (i) the normal cost rate, net of employee contributions if applicable, and (ii) the level percent-of-pay amortization of the UAAL. For the Judges' System and the Firefighters' System, certain specified revenues (court fees and a tax on fire insurance premiums, respectively) are used as an offset to the employer contribution rate each year, as described elsewhere in this report.

All contribution rates are based upon monthly payments of contributions.

### 11. Actuarial value of assets:

The actuarial value of assets is equal to the market value, adjusted for a five-year phase in of actual investment return in excess of (or less than) expected investment return. The actual return is calculated net of investment and administrative expenses, and the expected investment return is equal to the assumed investment return rate multiplied by the prior year's market value of assets, adjusted for contributions, benefits paid, and refunds. The actuarial value of assets is further adjusted, if necessary, so that it is not less than 80% of market value and not more than 120% of market value.

## 12. *Payroll growth rate*:

In determining the level percent of payroll amortization rate, payroll is assumed to grow annually at 4.00%. No allowance is made for future growth in the number of members.

## 13. Marital status:

All nonretired members are assumed to be married with no children. Female members are assumed to be three years younger than their spouses, while male members are assumed to be three years older than their spouses.

#### 14. Administrative and investment expenses:

No explicit assumption is made regarding administrative or investment expenses. The assumed 8.00% return is net of any such expenses.

## 15. Judges System:

For the Judges System, no disability or withdrawal rates were used. Salaries are assumed to increase at 4.00% per year.

#### 16. *Governors and Legislative Pension Plan:*

A 10% withdrawal rate is assumed regardless of age or service. No disability rates are used. No salary increase rate is used because the benefits do not reflect pay. Members are assumed to retire at the earlier of (i) age 65 with four years of service, or (ii) age 62 with 10 years of service. Normal cost and actuarial accrued liability are based on Level Dollar Entry Age Cost Method (not Level Percent of Pay).

#### 17. Interest Credited on Member Contribution Account Balances:

In projecting member contribution account balances, we assume that the rate credited is 8.00% each year. (The actual rate is set by the Board of Trustees annually, based on investment performance.) Interest is not credited to account balances for members of the Firefighters Retirement System.

18. *Cost-of-living increases*:

Since a 3.00% inflation rate is assumed (see investment return rate above), retirement benefits for all systems except Public Safety are assumed to increase at 3.00% even though the maximum allowable rate is 4%. Retirement benefits for the Public Safety System are assumed to increase at the maximum allowable rate of 2.50%. However, for current retirees who have received cumulative COLAs less than the total of annual CPI increases since retirement, we assume higher COLAs, subject to the annual maximum, as long as the member has "banked" CPI increases left.

# **APPENDIX 2**

# SUMMARY OF BENEFIT PROVISIONS FOR PUBLIC EMPLOYEE RETIREMENT SYSTEMS (CONTRIBUTORY AND NONCONTRIBUTORY)

- 1. *Effective Date*: Contributory System July 1, 1961. Noncontributory System - July 1, 1986.
- 2. *Plan Year*: Twelve-month period ending December 31st.
- 3. *Administration*: The Systems are administered by a Board of Trustees (which also administers the other Utah Retirement Systems). The Board of Trustees is responsible for both administration of the Systems and investment of the fund assets.
- 4. *Type of Plan*: These are qualified governmental defined benefit retirement plans. Under GASB 25, they are considered to be cost-sharing multiple-employer plans.
- 5. *Eligibility*: These Systems cover eligible employees of the State of Utah, most local government employees, and most public education employees. Generally all employees are covered, except for those covered by another System--public safety employees, firefighters, judges, legislators, and higher education employees covered under TIAA-CREF. Eligible employees become participants immediately when hired, and are required to participate. The employer-selected plan determines whether new employees participate in the Contributory or Noncontributory System. Employees who were members of the Contributory System at the time their employer selected the Noncontributory System had an option to remain in the Contributory System.
- 6. *Employee Contributions*: Members of the Contributory System contribute 6.00% of salary per year. Employers may "pick-up" employee contributions under Section 414(h) of the Internal Revenue Code. No contributions are made by members of the Noncontributory System.
- 7. *Employer Contributions*: The current contribution rates differ between the Contributory and Noncontributory Systems, and also differ depending on whether the member is employed by a local government (Level B) or the State of Utah or a public school (Level A). Rates are set by the Board of Trustees, based upon the actuarial valuation report for the preceding year. The Funds participating in these systems are:

Fund 11 - Local Government Contributory

Fund 12 - State and School Contributory

- Fund 15 Local Government Noncontributory
- Fund 16 State and School Noncontributory
- 8. *Final Average Monthly Salary (FAMS)*: The monthly average of the member's highest salaries preceding retirement. For the Contributory System a five-year average is used, while a three-year average is used for the Noncontributory System.

#### 9. *Service Retirement (Unreduced):*

- a. <u>Eligibility</u>: A member may retire with an unreduced benefit at age 65 with four years of service or after 30 years of service if earlier.
- b. <u>Monthly Benefit (Contributory)</u>: 2.00% times Final Average Monthly Salary (FAMS) times years of service earned since July 1, 1975, plus 1.25% of FAMS times service earned prior to July 1, 1975.
- c. <u>Monthly Benefit (Noncontributory</u>): 2.00% of Final Average Monthly Salary times years of service.
- d. <u>Payment Form</u>: Life annuity.

#### 10. Service Retirement (Reduced):

- a. <u>Eligibility</u>: A member may retire with a reduced benefit upon attaining age 62 with 10 years of service or age 60 with 20 years of service. A member of the Noncontributory System may retire at any age after earning 25 years of service.
- b. <u>Reduction</u>: 3% per year that retirement is earlier than age 65. For Noncontributory System members retiring prior to age 60, actuarial reduction is applied to the 85% factor at age 60.
- c. <u>Payment Form</u>: Life annuity.
- 11. *Disability Retirement:* 
  - a. <u>Eligibility</u>: Member must be eligible for retirement under the Disability Act and must not be eligible for a 30-year service retirement at time of disability.
  - b. <u>Monthly Benefits Payable Prior to Retirement</u>: A separate fund established under the Disability Act provides benefits from the time of disability until the age specified in 49-21-403. Benefits from this separate fund are not covered by these Systems.
  - c. <u>Monthly Benefits Payable after Retirement</u>: An unreduced service retirement benefit is payable. The member receives service credit for time while disabled (both for computing the benefit amount and for determining whether the member is eligible for an unreduced service retirement benefit). Final Average Monthly Salary is increased by the same factors used for automatic cost-of-living benefit increases. I.e., the FAMS is adjusted by a cost-of-living increase up to 4.0% per year (simple interest).
  - d. <u>Payment Form</u>: Life annuity.

e. <u>Death while Disabled</u>: A disabled member is treated as an active member for purposes of determining a death benefit for the period prior to retirement.

## 12. Vesting and Refunds:

- a. <u>Eligibility</u>: All members who are not vested are eligible for a refund when they terminate service. Members are vested after four years of service. Vested members may also elect to receive a refund in lieu of the deferred termination benefit described below. (Noncontributory System members hired after July 1, 1986, are ineligible for a refund.)
- b. <u>Amount</u>: The refund benefit is the accumulated value of the member's contributions plus interest credited by the fund. The amount of interest credited each year is set annually by the Board of Trustees.
- 13. Deferred Termination Benefit:
  - a. <u>Eligibility</u>: Member must be vested (4 years of service) and must elect to leave his/her contributions on deposit.
  - b. <u>Monthly Benefit</u>: Same as the unreduced or reduced service retirement benefit, based on service and FAMS at termination, and commencing once the member is eligible.
  - c. <u>Payment Form</u>: Life annuity.
  - d. <u>Death Benefit</u>: The beneficiary of an inactive member who dies is entitled to receive a refund benefit.
- 14. Death while an Active Member:
  - a. <u>In General</u>: A refund of the member's accumulated contributions (with interest) is paid to the beneficiary of a deceased member.
  - b. <u>Spousal Annuity</u>: If the deceased member was married at the time of death and was either (i) eligible for reduced or unreduced service retirement, or (ii) had 25 years of service (15 years of service in the noncontributory system), the spouse may elect an annuity benefit in lieu of the refund benefit. The annuity is equal to the reduced or unreduced service retirement benefit payable as though Plan 3 (a Joint and 100% Survivor annuity) were elected. If the member had 25 years of service or more, no reduction factor is applied in determining the service retirement benefit. If a member of the noncontributory system is not eligible for a retirement benefit and has less than 25 years of service, then the death benefit is equal to 1/3 of Plan 3 benefit if the member has at least 15 and less than 20 years of service, and 2/3 of the Plan 3 benefit if the member has at least 20 and less than 25 years of service.

- 15. *Optional Forms of Benefit*: The Systems permit members to elect from six forms of benefit at retirement. In each case the benefit amount is adjusted to be actuarially equivalent to the "Plan 1" form. The six optional forms are:
  - Plan 1 A life annuity with no benefits due following the member's death.
  - Plan 2 Modified Cash Refund Annuity. A reduced annuity payable for the member's lifetime, plus a death benefit equal to the excess of the member's accumulated contributions (determined at retirement) over the sum of the member's annuity payments from retirement. (The annuity payments are that part of the original benefit derived from the member's own accumulated contributions.)
  - Plan 3 Joint and 100% Survivor Annuity. An annuity payable as long as either the member or his/her spouse is living.
  - Plan 4 Joint and 50% Survivor Annuity. An annuity payable during the member's lifetime, and after the member's death if the member's spouse is still living, an annuity to the spouse of 50% of the original benefit.
  - Plan 5 Joint and 100% Pop-up Annuity. Same as Plan 3, except that the benefit amount reverts to the Plan 1 (life annuity) amount if the member's spouse predeceases the member.
  - Plan 6 Joint and 50% Pop-up Annuity. Same as Plan 4, except that the benefit amount reverts to the Plan 1 (life annuity) amount if the member's spouse predeceases the member.
- 16. *Postretirement Death Benefit*: None, except as elected by the member. See Optional Forms of Benefit above.
- 17. *Postretirement Benefit Increases*: Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 4% of the original benefit (i.e., a maximum 4% simple interest increase). In years in which the cost of living increases more than 4%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 4%. This calculation is made separately for each individual. In addition, a closed group of retirees also receives a second special increase amount paid as a level annuity under whichever form of payment was elected. This is the Restoration of Purchasing Power (ROPP) payment.
- 18. *3% Substantial Substitute*: All members whose service began before January 1, 1989, receive an additional annual payment equal to 3% of their benefit. These payments are made to offset the taxability of the retirement benefits under the State income tax provisions. Prior to July 1, 1995, this benefit was funded by annual appropriations made by the State on a pay-as-you go basis. Beginning July 1, 1995, this benefit is funded on an actuarial basis by increasing the employer contribution rate for those Funds which are funded by the State.



# SUMMARY OF BENEFIT PROVISIONS FOR PUBLIC SAFETY RETIREMENT SYSTEMS (CONTRIBUTORY AND NONCONTRIBUTORY)

- 1. *Effective Date*: Contributory System July 1, 1969. Noncontributory System - July 1, 1989.
- 2. *Plan Year*: Twelve-month period ending December 31st.
- 3. *Administration*: The Systems are administered by a Board of Trustees (which also administers the other Utah Retirement Systems). The Board of Trustees is responsible for both administration of the Systems and investment of the fund assets.
- 4. *Type of Plan*: These are qualified governmental defined benefit retirement plans. Under GASB 25, they are considered to be a combination of agent and cost-sharing multiple-employer plans.
- 5. *Eligibility*: These Systems cover eligible public safety employees of the State of Utah and some local governments. Eligible employees become participants immediately when hired, and are required to participate. The employer-selected plan determines whether new employees participate in the Contributory or Noncontributory System. Employees who were members of the Contributory System at the time their employer selected the Noncontributory System had an option to remain in the Contributory System.
- 6. *Employee Contributions*: Members of the Contributory System contribute a percentage of salary, as shown below . Employers may "pick-up" employee contributions under Section 414(h) of the Internal Revenue Code. No contributions are made by members of the Noncontributory System. Rates in the Contributory System vary by employer as follows:

Fund 22 - State of Utah	12.29%
Fund 23 - Other Division A	12.29%
Fund 24 - Salt Lake City	13.74%
Fund 26 - Provo	13.54%
Fund 27 - Logan	11.13%
Fund 29 - Other Division B	10.50%

7. *Employer Contributions*: The current contribution rates differ between the Contributory and Noncontributory Systems, and also differ depending on which fund (employer or group of employers) the member belongs to. Rates are set by the Board of Trustees, based upon the actuarial valuation report for the preceding year. The Funds included in these Systems are:

Contributory System Fund 22 - State of Utah (Div A) Fund 23 - Other Division A Fund 24 - Salt Lake City (Div B) Fund 26 - Provo (Div B) Fund 27 - Logan (Div B) Fund 29 - Other Division B

Noncontributory System Fund 42 - State of Utah (Div A) Fund 43 - Other Division A Fund 44 - Salt Lake City (Div B) Fund 45 - Ogden (Div B) Fund 48 - Bountiful (Div A) Fund 49 - Other Division B

The division designation (A or B) distinguishes between those employers covered by Social Security (A) and those not covered (B). Some plan provisions differ depending on the member's division.

- 8. *Final Average Monthly Salary (FAMS)*: The monthly average of the member's highest three salaries preceding retirement.
- 9. *Service Retirement*:
  - a. <u>Eligibility</u>: A member may retire with an unreduced benefit at age 65 with four years of service or at age 60 with 10 years of service or at any age with 20 years of service.
  - b. <u>Monthly Benefit</u>: 2.50% of Final Average Monthly Salary (FAMS) times years of service up to 20 years, plus 2.00% of FAMS times years of service in excess of 20. Benefits are limited to 70% of FAMS.
  - c. <u>Payment Form</u>: For married members benefits are paid as an automatic unreduced Joint and 65% Survivor Annuity. A life annuity is payable to unmarried members (although children's benefits may also be due following the member's death).

#### 10. *Disability Retirement*:

- a. <u>Eligibility</u>: Member must be eligible for retirement under the Disability Act (or a substantially equivalent program) and must not be eligible for a 20-year service retirement at time of disability. Note that not all political subdivisions cover their members under a disability program.
- b. <u>Monthly Benefits Payable Prior to Retirement</u>: A separate fund established under the Disability Act (or an equivalent program) provides benefits from the time of disability until the age specified in 49-21-403. Benefits from this separate fund are not covered by these Systems.
- c. <u>Monthly Benefits Payable after Retirement</u>: An unreduced service retirement benefit is payable. The member receives service credit for time while disabled (both for computing the benefit amount and for determining whether the member is eligible for an unreduced service retirement benefit). Final Average Monthly Salary is increased by the same factors used for automatic cost-of-living benefit increases. I.e., the FAMS is adjusted by a cost-of-living increase up to 2.5% per year (simple interest).
- d. <u>Payment Form</u>: Same as for Service Retirement.
- e. <u>Death while Disabled</u>: A disabled member is treated as an active member for purposes of determining a death benefit for the period prior to retirement.
- 11. *Vesting and Refunds*:
  - a. <u>Eligibility</u>: All members who are not vested are eligible for a refund when they terminate service. Members are vested after four years of service. Vested members may also elect to receive a refund in lieu of the deferred termination benefit described below. (Noncontributory System members hired after July 1, 1989, are ineligible for a refund.)
  - b. <u>Amount</u>: The refund benefit is the accumulated value of the member's contributions credited by the fund. Interest is credited on the member's contribution account, beginning July 1, 1996. The amount of interest credited each year is set annually by the Board of Trustees.
- 12. Deferred Termination Benefit:
  - a. <u>Eligibility</u>: Member must be vested (4 years of service) and must elect to leave his/her contributions on deposit.
  - b. <u>Monthly Benefit</u>: Same as the service retirement benefit, based on service and FAMS at retirement, and commencing once the member is eligible.
  - c. <u>Payment Form</u>: Same as for service retirement.

- d. <u>Death Benefit</u>: The beneficiary of an inactive member who dies is entitled to receive a refund benefit (or \$500 if larger). The spouse of an inactive member with 20 years of service receives a monthly annuity equal to 50% of the service retirement benefit that would have been paid had the member died immediately prior to retirement. (An actuarial reduction factor is applied if the member was under age 50 at death.)
- 13. *Death while an Active Member (On Duty)*: If death occurs in the line of duty, the lump-sum and annuity benefits described below will be paid to the spouse. (The benefits are not applicable to unmarried members, although children's benefits may be due.)
  - a. <u>Lump-sum (Division A members)</u>: \$1,000.
  - b. Annuity (Division A members): 30% of member's FAMS.\*
  - c. <u>Lump-sum (Division B members)</u>: \$1,500.
  - d. <u>Annuity (Division B members)</u>: 37.5% of member's FAMS.
- 14. *Death of an Active Member (Off Duty)*: If death occurs from a cause not related to the member's duties, the lump-sum and annuity benefits described below will be paid to the spouse. (The benefits are not applicable to unmarried members, although children's benefits may be due.)
  - a. <u>Lump-sum (Division A members)</u>: If the member has less than 10 years of service, the benefit is \$1,000 or a refund benefit, whichever is larger. If the member has 10 or more years of service, the benefit is \$500.
  - b. <u>Annuity (Division A members):</u> If the member has less than 10 years of service, no annuity is due. For members with 10 or more years of service, the benefit is 2% of FAMS per year of service, to a maximum of 30% of FAMS.\*
  - c. <u>Lump-sum (Division B members)</u>: If the member does not have two years of service, the benefit is the sum of 50% of the member's salary plus a refund benefit. If the member has two or more years of service, the benefit is \$1,500.
  - d. <u>Annuity (Division B members)</u>: If the member has fewer than two years of service, no annuity is due. If the member has two or more years of service, the annuity is 37.5% of the member's FAMS.

\*(For members of the Noncontributory System, not less than the benefit payable to the surviving spouse if the member had retired the day before the member's date of death.)

- 15. Optional Forms of Benefit: None.
- 16. *Postretirement Death Benefit*: None, except for survivor benefit applicable to married members.

- 17. *Postretirement Benefit Increases*: Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 2.5% of the original benefit (i.e., a maximum 2.5% simple interest increase). In years in which the cost of living increases more than 2.5%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 2.5%. This calculation is made separately for each individual. In addition, a closed group of retirees also receives a second special increase amount paid as a level annuity under whichever form of payment is applicable. This is the Restoration of Purchasing Power (ROPP) payment.
- 18. *3% Substantial Substitute*: All members whose service began before January 1, 1989, receive an additional annual payment equal to 3% of their benefit. These payments are made to offset the taxability of the retirement benefits under the State income tax provisions. Prior to July 1, 1995, this benefit was funded by annual appropriations made by the State on a pay-as-you go basis. Beginning July 1, 1995, this benefit is funded on an actuarial basis by increasing the employer contribution rate for those Funds which are funded by the State.

## Summary of Benefit Provisions for Firefighters Retirement System

- 1. *Effective Date*: July 1, 1971.
- 2. *Plan Year*: Twelve-month period ending December 31st.
- 3. *Administration*: The System is administered by a Board of Trustees (which also administers the other Utah Retirement Systems). The Board of Trustees is responsible for both administration of the System and investment of the fund assets.
- 4. *Type of Plan*: This is a qualified governmental defined benefit retirement plan. Under GASB 25, it is considered to be a cost-sharing multiple-employer plan.
- 5. *Eligibility*: This System covers eligible firefighters employed by participating local governments in Utah. Eligible employees become participants immediately when hired, and are required to participate. Employers are designated as either Division A (employers with Social Security coverage) or Division B (employers without Social Security coverage). Benefit provisions and contribution rates differ for members of different divisions.
- 6. *Employee Contributions*: Members contribute a percentage of salary, as shown below. Employers may "pick-up" employee contributions under Section 414(h) of the Internal Revenue Code.

Fund 31 - Division A 15.05% Fund 32 - Division B 16.71%

Contribution rates shown may be reduced by expected income from a tax on fire insurance premiums.

7. The current employer contribution rates depend on the Fund. Division A covers employers covered by Social Security and Division B covers other employers. The contribution rates are set by the Board of Trustees, based on the actuarial valuation for the preceding year. Contribution rates are reduced by expected income from a tax on fire insurance premiums. The Funds in this System are:

Fund 31 - Division A Fund 32 - Division B

8. *Final Average Monthly Salary (FAMS)*: The monthly average of the member's highest three salaries preceding retirement.

#### 9. *Service Retirement*:

- a. <u>Eligibility</u>: A member may retire with an unreduced benefit at age 65 with four years of service or at age 60 with 10 years of service or at any age with 20 years of service.
- b. <u>Monthly Benefit</u>: 2.50% of Final Average Monthly Salary (FAMS) times years of service up to 20 years, plus 2.00% of FAMS times years of service in excess of 20. Benefits are limited to 70% of FAMS. There is a minimum benefit of \$500 per month.
- c. <u>Payment Form</u>: For married members benefits are paid as an automatic unreduced Joint and 75% Survivor Annuity. A life annuity is payable to unmarried members (although children's benefits may also be due following the member's death).

#### 10. *Disability Retirement*:

- a. <u>Eligibility</u>: Member must have five or more years of service or the disability must be related to the member's duties. In addition, the member must not be eligible for a 20-year service retirement at time of disability.
- b. Monthly Benefits: 50% of FAMS.
- c. <u>Payment Form</u>: Benefits are payable as long as the member is disabled. Upon reaching 20 years of service, including time while disabled, or at age 65 if earlier, benefits are converted to a retirement benefit. There are special rules governing when benefits must be converted for members who become disabled after age 60.
- d. <u>Death while Disabled</u>: Upon the death of a disabled firefighter, the spouse shall receive 75% of the benefit currently being paid.
- 11. Vesting and Refunds:
  - a. <u>Eligibility</u>: All members who are not vested are eligible for a refund when they terminate service. Members are vested after four years of service. Vested members may also elect to receive a refund in lieu of the deferred termination benefit described below.
  - b. <u>Amount</u>: The refund benefit is the accumulated value of the member's contributions credited by the fund. Interest is not credited on member contributions.
- 12. Deferred Termination Benefit:
  - a. <u>Eligibility</u>: Member must be vested (4 years of service) and must elect to leave his/her contributions on deposit.
  - b. <u>Monthly Benefit</u>: Same as the service retirement benefit, based on service and FAMS at termination, and commencing once the member is eligible.
  - c. <u>Payment Form</u>: Same as for service retirement.

- d. <u>Death Benefit</u>: The beneficiary of an unmarried inactive member who dies with 20 or more years of service prior to retirement is entitled to receive a refund benefit (or \$500 if larger). The spouse of an inactive member with 20 years of service receives a monthly annuity equal to 50% of the service retirement benefit that would have been paid had the member died immediately prior to retirement. (An actuarial reduction factor is applied if the member was under age 50 at death.) If the inactive member had less than 20 years of service, no death benefit is due.
- 13. *Death while an Active Member (On Duty)*: If death occurs in the line of duty, the lump-sum and annuity benefits described below will be paid to the spouse. (The benefits are not applicable to unmarried members, although children's benefits may be due.)
  - a. <u>Lump-sum (Division A members)</u>: \$1,500.
  - b. <u>Annuity (Division A members)</u>: 30% of member's FAMS. For members with more than 20 years of service, the annuity is 75% of the retirement benefit earned by the member as of his/her date of death.
  - c. <u>Lump-sum (Division B members)</u>: \$1,500.
  - d. <u>Annuity (Division B members)</u>: 37.5% of member's FAMS. For members with more than 20 years of service, the annuity is 75% of the retirement benefit earned by the member as of his/her date of death.
- 14. <u>Death of an Active Member (Off Duty)</u>: If death occurs from a cause not related to the member's duties, the lump-sum and annuity benefits described below will be paid to the spouse. (The benefits are not applicable to unmarried members, although children's benefits may be due.)
  - a. <u>Lump-sum (Division A members)</u>: If the member has less than 10 years of service, the benefit is \$1,000 or a refund benefit, whichever is larger. If the member has 10 or more years of service, the benefit is \$500.
  - b. <u>Annuity (Division A members)</u>: If the member has less than 10 years of service, no annuity is due. For members with 10 or more years of service, the benefit is 2% of FAMS per year of service, to a maximum of 30% of FAMS.
  - c. <u>Lump-sum (Division B members)</u>: If the member does not have five years of service, the benefit is the sum of 50% of the member's salary plus a refund benefit. If the member has five or more years of service, the benefit is \$1,500.
  - d. <u>Annuity (Division B members):</u> If the member has fewer than five years of service, no annuity is due. If the member has five or more years of service, the annuity is 37.5% of the member's FAMS. For members with more than 20 years of service, the annuity is 75% of the retirement benefit earned by the member as of his/her date of death.
- 15. Optional Forms of Benefit: None.

- 16. *Postretirement Death Benefit*: None, except for survivor benefit applicable to married members.
- 17. *Postretirement Benefit Increases*: Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 4% of the original benefit (i.e., a maximum 4% simple interest increase). In years in which the cost of living increases more than 4%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 4%. This calculation is made separately for each individual. In addition, a closed group of retirees also receives a second special increase amount paid as a level annuity under whichever form of payment is applicable. This is the Restoration of Purchasing Power (ROPP) payment.
- 18. *3% Substantial Substitute*: All members whose service began before January 1, 1989, receive an additional annual payment equal to 3% of their benefit. These payments are made to offset the taxability of the retirement benefits under the State income tax provisions. Prior to July 1, 1995, this benefit was funded by annual appropriations made by the State on a pay-as-you go basis. Beginning July 1, 1995, this benefit is funded on an actuarial basis by increasing the employer contribution rate for those Funds which are funded by the State.

## SUMMARY OF BENEFIT PROVISIONS FOR JUDGES RETIREMENT SYSTEM

- 1. *Effective Date*: July 1, 1963.
- 2. *Plan Year*: Twelve-month period ending December 31st.
- 3. *Administration*: The System is administered by a Board of Trustees (which also administers the other Utah Retirement Systems). The Board of Trustees is responsible for both administration of the System and investment of the fund assets.
- 4. *Type of Plan*: This is a qualified governmental defined benefit retirement plan. Under GASB 25, it is considered to be a single-employer plan.
- 5. *Eligibility*: This System covers judges of the State of Utah, including Supreme Court justices and appellate, district, circuit and juvenile court judges.
- 6. *Employee Contributions*: Members of the Contributory System contribute 2.00% of salary per year. No contributions are made by members of the Noncontributory System.
- 7. *Employer Contributions*: Fund 37 (Judges) has a contribution rate which is set by the Board of Trustees, based on the actuarial valuation for the preceding year. The rate is reduced by estimated court fees which are earmarked for this fund.
- 8. *Final Average Monthly Salary (FAMS)*: The monthly average of the member's highest two salaries preceding retirement.
- 9. *Service Retirement (Unreduced)*:
  - a. <u>Eligibility</u>: A member may retire with an unreduced benefit at age 70 with six years of service or after age 62 with 10 years of service or after 25 years of service.
  - b. <u>Monthly Benefit</u>: 5.00% times Final Average Monthly Salary (FAMS) times years of service up to 10, plus 2.25% of FAMS times years of service in excess of 10 but less than 20, plus 1.00% times FAMS times years of service in excess of 20. There is a maximum benefit of 75% of FAMS, and a minimum benefit equal to 110% of the formula benefit (but not greater than \$1,000 per month).
  - c. <u>Payment Form</u>: Married members receive an automatic, unreduced Joint and 65% Survivor annuity. Unmarried members receive a life annuity.

- 10. Service Retirement (Reduced):
  - a. <u>Eligibility</u>: A member may retire with a reduced benefit upon attaining age 55 with 20 years of service.
  - b. <u>Reduction</u>: An actuarial reduction from age 65.
  - c. <u>Payment Form</u>: Same as for unreduced service retirement.
- 11. *Disability Retirement*: This System has no provisions applying to disability retirement.
- 12. *Vesting and Refunds*:
  - a. <u>Eligibility</u>: All members who are not vested are eligible for a refund when they terminate service. Members are vested after six years of service. Vested members may also elect to receive a refund in lieu of the deferred termination benefit described below.
  - b. <u>Amount</u>: The refund benefit is the accumulated value of the member's contributions plus interest credited by the fund. The amount of interest credited each year is set annually by the Board of Trustees.
- 13. Deferred Termination Benefit:
  - a. <u>Eligibility</u>: Member must be vested (6 years of service) and must elect to leave his/her contributions on deposit.
  - b. <u>Monthly Benefit</u>: Same as the unreduced or reduced service retirement benefit, based on service and FAMS at termination, and commencing once the member is eligible.
  - c. <u>Payment Form</u>: Same as for unreduced service retirement.
  - d. <u>Death Benefit</u>: Same as for an active member.
- 14. *Death while an Active Member*: A refund of the member's accumulated contributions (with interest) is paid to the beneficiary of a deceased member. In addition, 65% of the member's FAMS (annualized) is paid to the spouse if the member was married. Alternatively, the spouse may waive these benefits and elect instead an annuity. The annuity is equal to 65% of the benefit determined using the unreduced service retirement formula, and based on current service and FAMS at the time of death.
- 15. *Optional Forms of Benefit*: The System permits married members to elect a reduced Joint and 75% Survivor annuity in lieu of the automatic Joint and 65% Survivor annuity. No other optional payment forms are available.
- 16. *Postretirement Death Benefit*: None, except for the Joint and Survivor annuities available to married members.

- 17. *Postretirement Benefit Increases*: Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 4% of the current benefit (i.e., a maximum 4% compound interest increase). In years in which the cost of living increases more than 4%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 4%. This calculation is made separately for each individual. In addition, judges retired prior to July 1, 1983 received an increase of \$120 per month (\$60 for beneficiaries).
- 18. *3% Substantial Substitute*: All members whose service began before January 1, 1989, receive an additional annual payment equal to 3% of their benefit. These payments are made to offset the taxability of the retirement benefits under the State income tax provisions. Prior to July 1, 1995, this benefit was funded by annual appropriations made by the State on a pay-as-you go basis. Beginning July 1, 1995, this benefit is funded on an actuarial basis by increasing the employer contribution rate for those Funds which are funded by the State.

## SUMMARY OF BENEFIT PROVISIONS FOR THE GOVERNORS AND LEGISLATIVE PENSION PLAN

- 1. *Effective Date*: July 1, 1967.
- 2. *Plan Year*: Twelve-month period ending December 31st.
- 3. *Administration*: The System is administered by a Board of Trustees (which also administers the other Utah Retirement Systems). The Board of Trustees is responsible for both administration of the System and investment of the fund assets.
- 4. *Type of Plan*: This is a qualified governmental defined benefit retirement plan. Under GASB 25, it is considered to be a single-employer plan.
- 5. *Eligibility*: This System covers state legislators with four or more years of service, and governors of the state.
- 6. *Employee Contributions*: None.
- 7. *Employer Contributions*: The state annually appropriates an actuarially determined contribution.
- 8. *Benefit base*: The benefit base is used to determine the benefits payable at retirement.
  - a. <u>Legislators</u>: The base was \$10.00 per month per year of service as of July 1, 1967. The base is increased 2% each six months after that date. As of January 1, 2007, the benefit base is therefore \$25.80.
  - b. <u>Governors</u>: The base was \$500.00 per month per term as of July 1, 1973. The base is increased 2% each six months after that date. As of January 1, 2007, the benefit base is therefore \$1,170.00.
  - c. <u>Supplemental Benefit</u>: An additional benefit of \$3.50 per month per year of service. This benefit is not indexed nor are COLAs granted on it. This benefit only applies to members of the System on March 1, 2000 and is effective March 1, 2000.
- 9. *Service Retirement (Unreduced)*:
  - a. <u>Eligibility</u>: Age 65.
  - b. <u>Monthly Benefit</u>: Legislators receive the benefit base (see above) per year of service, while former governors receive the benefit base (see above) for each term served (maximum of two terms).

- c. <u>Payment Form</u>: For married members, a Joint and 50% Survivor annuity. For unmarried members, a life annuity.
- 10. Service Retirement (Reduced):
  - a. <u>Eligibility</u>: A member may retire with a reduced benefit upon attaining age 62 with 10 years of service.
  - b. <u>Reduction</u>: 3% per year that retirement is prior to age 65.
  - c. <u>Payment Form</u>: Same as for unreduced service retirement.
- 11. *Disability Retirement*: This System has no provisions applying to disability retirement.
- 12. *Vesting and Refunds*: A vested member who made contributions in another System and withdraws them forfeits all benefits under this System.
- 13. Deferred Termination Benefit:
  - a. <u>Eligibility</u>: Same as for reduced or unreduced service retirement. The member must not have withdrawn his/her contributions under another System.
  - b. <u>Monthly Benefit</u>: Same as the unreduced or reduced service retirement benefit, based on service at termination, and commencing once the member is eligible.
  - c. <u>Payment Form</u>: Same as for unreduced service retirement.
  - d. <u>Death Benefit</u>: Same as for an active member.
- 14. Death while an Active Member:
  - a. <u>Eligibility</u>: Four years of service as a legislator or governor.
  - b. <u>Monthly Benefit</u>: 50% of the unreduced service retirement benefit that the member would have been entitled to upon reaching age 65 based on the current benefit base. Benefit is paid to surviving spouse only.
- 15. Optional Forms of Benefit: None.
- 16. *Postretirement Death Benefit*: None, except for the Joint and Survivor annuity available to married members.
- 17. *Postretirement Benefit Increases*: Benefits are increased annually to take into account changes in the cost of living, with a maximum annual increase of 4% of the original benefit (i.e., a maximum 4% simple interest increase). In years in which the cost of living increases more than 4%, the excess increase is accumulated and used in later years in which the cost-of-living increase is less than 4%. This calculation is made separately for each individual. Note that the supplemental \$3.50 per month per year of service benefit is not eligible for these increases.
18. *3% Substantial Substitute*: All members whose service began before January 1, 1989, receive an additional annual payment equal to 3% of their benefit. These payments are made to offset the taxability of the retirement benefits under the State income tax provisions. Prior to July 1, 1995, this benefit was funded by annual appropriations made by the State on a pay-as-you go basis. Beginning July 1, 1995, this benefit is funded on an actuarial basis by increasing the employer contribution rate for those Funds which are funded by the State.