

Executive Summary

Item	2008	2007
Membership		
• Number of		
- Active members	88,678	88,133
- Retirees and beneficiaries	45,238	43,506
- Inactive, vested	6,915	6,637
- Inactive, nonvested	6,908	6,613
- Total	147,739	144,889
• Payroll	\$ 3,751 million	\$ 3,599 million
Statutory contribution rates	FY 2009	FY 2008
• Employers in BESIP	8.50%/19.00% *	7.85%/18.35% *
• Regional universities	7.55%/18.05% *	7.05%/17.55% *
• Federal/grant salaries	7.50%	7.00%
• Members	7.00%	7.00%
• State (% of tax revenues)	5.00%	5.00%
Assets		
• Market value	\$ 8,634 million	\$ 9,293 million
• Actuarial value	\$ 9,257 million	\$ 8,422 million
• Return on market value	-7.5%	18.0%
• Return on actuarial value	9.4%	12.4%
• State/local/federal contributions	\$ 597 million	\$ 536 million
• External cash flow %	0.4%	0.2%
• Ratio of actuarial to market value	107.2%	90.6%
Actuarial Information		
• Normal cost %	11.25%	10.52%
• Unfunded actuarial accrued liability (UAAL)	\$ 9,090 million	\$ 7,603 million
• Funded ratio	50.5%	52.6%
• Funding period (years)	54.4	21.6
GASB 25 ARC (30 year, level %)	FY 2009	FY 2008
• Dollar amount	\$714,367,558	\$590,495,652
• Percent of pay	18.19%	15.68%
Gains/(losses)		
• Asset experience	\$ 118 million	\$ 333 million
• Liability experience	(31) million	(123) million
• Benefit changes	(67) million	0 million
• Assumption Changes	(1,406) million	0 million
• Total	(\$1,386) million	\$ 210 million

* First rate shown is effective for July-December, second rate shown is effective for January-June

FUNDED STATUS

Because the employer contribution rates are set by statute, this report determines the funding period required to amortize the Unfunded Actuarial Accrued Liability (UAAL).

The UAAL increased by \$1.488 billion, from \$7.603 billion to \$9.090 billion. The funded ratio – the ratio of the actuarial value of assets to actuarial accrued liability – decreased from 52.6% to 50.5%. The funding period – the number of years that would be required under the current contribution schedule to amortize the UAAL – has gone from 21.6 years to 54.4 years. We now project that the System will not reach 80% funded until after 2050, assuming no further changes in benefits or contribution rates and assuming no actuarial gains or losses.

These effects are primarily due to an increase in the assumed rate of future cost of living adjustments from 1% to 2% per year.

OTRS remains among the most poorly funded of all statewide plans. The actuarial value of assets is just sufficient to cover the liabilities for currently retired members. Despite an increase in contribution rates, future contributions are not projected to reach the GASB 25 ARC (the benchmark contribution) until FY 2034.

The current combined state/local/federal contribution for FY 2008 was not sufficient to pay the normal cost and pay the interest on the UAAL, so negative amortization is occurring. This is expected to continue over the next 35 years.

This report also determines the GASB Annual Required Contribution (ARC). This is the contribution required to fund the normal cost and to amortize the UAAL as a level percent of pay over 30 years. This amount is 18.19% of salary as shown in Table 1, compared to 15.68% last year. Our projections show that the ARC is expected to increase over the next decade before starting to decrease.

ANALYSIS OF CHANGES

UAAL

Table 12a shows an analysis of the change in the UAAL. The UAAL, which was \$7,602.5 million last year, has increased to \$9,090.1 million this year.

The increase in the UAAL was primarily due the assumption change for the current year. Increasing the assumed future ad hoc cost of living adjustments from 1% to 2% per year increased the UAAL by \$1,406.0 million. Despite the loss on the market value of assets in FY 2008, the System had a gain on the actuarial value of assets (AVA) of \$117.7 million, due to the phase in of previously deferred gains. There was a \$30.5 million liability loss related to deviation from our assumptions. This loss excludes the effect of the COLA assumption and the adoption of the 2% ad hoc COLA. There was a \$67.3 million loss due 2% ad hoc COLA. (This figure is the additional liability produced, in excess of the assumed 1% COLA.)

The rest of the change in the UAAL since the last valuation is due to the negative amortization that occurs because statutory contributions are not sufficient to reduce the UAAL.

Funding Period

The funding period (the period required to amortize the UAAL) increased from 21.6 years to 54.4 years. This was primarily due the assumption change for the current year that increased the future ad hoc cost of living adjustment from 1% to 2% per year

The funding period shown on Table 1, and the projection of the UAAL shown on Table 13, are based upon a deterministic projection that takes into account future increases in employer contribution rates and the phase in of the difference between the actuarial and market values of assets. This projection assumes: (a) future market earnings, net of expenses, will equal 8.00% per year, (b) there will be no liability gains/losses or changes in assumptions, (c) the number of active members will remain unchanged, (d) active members who leave employment will be replaced by new entrants each year, (e) the State's contribution for FY 2009 will be \$268 million as projected by the Office of State Finance (OSF), and (f) future state revenues will increase at 3.5% per year, except that, due to changes in the State's income tax, increases will only be 2.25% until FY 2010.

Development of Employer Cost

	June 30, 2008 (1)	June 30, 2007 (2)
1. Payroll		
a. Supplied by system	\$ 3,751,436,376	\$ 3,598,926,888
b. Adjusted for one year's pay increase	3,926,476,288	3,766,989,331
2. Present value of future pay (paid monthly)	\$ 29,734,468,919	\$ 28,625,597,268
3. Normal cost rate (payable monthly)		
a. Total normal cost rate	11.25%	10.52%
b. Less: member rate	(7.00%)	(7.00%)
c. Employer normal cost rate	<u>4.25%</u>	<u>3.52%</u>
4. Actuarial accrued liability for active members		
a. Present value of future benefits for active members	\$ 12,402,320,069	\$ 10,973,945,087
b. Less: present value of future employer normal costs (Item 3c * Item 2)	(1,263,714,929)	(1,007,621,024)
c. Less: present value of future member contributions	<u>(2,081,412,824)</u>	<u>(2,003,791,809)</u>
d. Actuarial accrued liability	\$ 9,057,192,316	\$ 7,962,532,254
5. Total actuarial accrued liability for:		
a. Retirees and beneficiaries	\$ 8,919,572,410	\$ 7,730,260,900
b. Inactive members	370,099,726	331,600,462
c. Active members (Item 4d)	<u>9,057,192,316</u>	<u>7,962,532,254</u>
d. Total	\$ 18,346,864,452	\$ 16,024,393,616
6. Actuarial value of assets	\$ 9,256,786,936	\$ 8,421,866,942
7. Unfunded actuarial accrued liability (UAAL) (Item 5d - Item 6)	\$ 9,090,077,516	\$ 7,602,526,674
8. Funding period based on statutory contribution rates	54.4 years	21.6 years
9. GASB 25 ARC		
a. Employer normal cost (Item 1b * 3c)	\$ 166,875,242	\$ 132,598,024
b. Level % 30-year amortization of UAAL (payable monthly)	547,492,316	457,897,628
c. Total	<u>\$ 714,367,558</u>	<u>\$ 590,495,652</u>
d. Contributions as percentage of payroll	18.19%	15.68%

Analysis of Change in Unfunded Actuarial Accrued Liability (UAAL)

Basis (1)	June 30, 2008 UAAL (in \$ Millions) (2)	June 30, 2007 UAAL (in \$ Millions) (3)
1. From prior valuation	\$ 7,602.5	\$ 7,672.9
2. Impact of changes, gains and losses		
a. Expected increase based on expected contributions and passage of time	130.2	222.5
b. Liability (gain)/loss	30.5	123.3
c. Asset (gain)/loss	(117.7)	(332.7)
d. Impact of actual ctrib (more)/less than expected under schedule	(28.8)	(83.4)
e. 2% Ad-Hoc COLA	67.3	0.0
f. Increase in future ad hoc COLA assumption	1,406.0	0.0
h. Total	1,487.5	(70.3)
3. Current UAAL (1+2h)	\$ 9,090.1	\$ 7,602.5

Columns may not total due to rounding

Projection of UAAL

<u>Valuation Date</u> (1)	<u>UAAL (Millions)</u> (2)
June 30, 2008	9,090.1
June 30, 2009	9,474.1
June 30, 2010	9,876.1
June 30, 2011	10,297.7
June 30, 2012	10,883.1
June 30, 2013	11,186.1
June 30, 2014	11,495.9
June 30, 2015	11,812.1
June 30, 2016	12,134.6
June 30, 2017	12,462.8
June 30, 2018	12,796.5
June 30, 2019	13,135.1
June 30, 2020	13,478.1
June 30, 2021	13,824.6
June 30, 2022	14,174.0
June 30, 2023	14,525.6
June 30, 2024	14,878.5
June 30, 2025	15,231.8
June 30, 2026	15,584.5
June 30, 2027	15,935.8
June 30, 2028	16,284.4
June 30, 2029	16,629.2
June 30, 2030	16,968.8
June 30, 2031	17,301.6
June 30, 2032	17,625.8
June 30, 2033	17,939.7
June 30, 2034	18,241.0
June 30, 2035	18,527.3
June 30, 2036	18,796.1
June 30, 2037	19,044.2

Membership Data

	June 30, 2008 (1)	June 30, 2007 (2)
1. Active members	88,678	88,133
a. Number		
b. Total payroll supplied by System	\$ 3,751,436,376	\$ 3,598,926,888
c. Average salary	\$ 42,304	\$ 40,835
d. Average age	45.9	45.8
e. Average service	11.5	11.5
2. Vested inactive members	6,915	6,637
a. Number		
b. Total annual deferred benefits	\$ 51,446,164	\$ 49,993,687
c. Average annual deferred benefit	\$ 7,440	\$ 7,533
3. Nonvested inactive members	6,908	6,613
a. Number		
b. Member contributions with interest due	\$ 25,114,016	\$ 24,373,611
c. Average refund due	\$ 3,635	\$ 3,686
4. Service retirees	41,685	40,068
a. Number		
b. Total annual benefits ^{1,2}	\$ 747,336,202	\$ 696,685,159
c. Average annual benefit	\$ 17,928	\$ 17,388
5. Special service retirees	63	91
a. Number		
b. Total annual benefits ^{1,2}	\$ 146,762	\$ 208,106
c. Average annual benefit	\$ 2,330	\$ 2,287
6. Disabled retirees	1,513	1,471
a. Number		
b. Total annual benefits ^{1,2}	\$ 16,606,561	\$ 15,770,285
c. Average annual benefit	\$ 10,976	\$ 10,721
7. Beneficiaries and spouses	1,977	1,876
a. Number		
b. Total annual benefits ^{1,2}	\$ 29,045,325	\$ 26,691,199
c. Average annual benefit	\$ 14,692	\$ 14,228

¹ Benefit amounts exclude the supplemental medical insurance payment.

² Benefit amounts for 2008 include 2.00% COLA effective July 1, 2008

Teachers' Retirement System of Oklahoma
Actuarial Valuation - June 30, 2008

Distribution of Active Members by Age and by Years of Service
As of 06/30/2008

Attained Age	Years of Credited Service													Total													
	0		1		2		3		4		5-9		10-14		15-19		20-24		25-29		30-34		35 & Over				
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.		Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.		
Under 25	262 \$20,444	795 \$29,661	216 \$29,743	48 \$24,890	13 \$21,046	7 \$30,691	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1,341 \$27,624	
25-29	357 \$21,213	1,724 \$31,281	1,602 \$33,535	1,496 \$34,275	1,007 \$35,462	859 \$36,279	6 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	7,051 \$33,129	
30-34	321 \$18,640	1,028 \$31,519	1,011 \$33,859	897 \$34,926	891 \$36,377	3,551 \$39,413	648 \$41,893	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	8,347 \$36,356	
35-39	364 \$17,544	933 \$30,216	947 \$33,230	900 \$34,651	800 \$36,764	2,998 \$41,755	2,998 \$44,267	724 \$45,481	4 \$42,951	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	10,668 \$39,149
40-44	281 \$16,942	814 \$29,723	826 \$31,036	726 \$32,914	648 \$35,263	2,609 \$41,276	1,979 \$46,975	2,468 \$47,902	581 \$49,711	4 \$41,067	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	4 \$0	10,936 \$41,081
45-49	292 \$16,834	784 \$29,112	794 \$30,893	695 \$32,417	637 \$33,139	2,738 \$40,241	2,257 \$44,293	2,135 \$48,760	874 \$50,825	5 \$47,194	5 \$0	5 \$0	5 \$0	5 \$0	5 \$0	5 \$0	5 \$0	5 \$0	5 \$0	5 \$0	5 \$0	5 \$0	5 \$0	5 \$0	5 \$0	5 \$0	13,338 \$42,311
50-54	218 \$17,868	633 \$30,684	582 \$32,118	551 \$34,092	528 \$35,555	2,247 \$39,620	2,204 \$43,798	2,400 \$47,014	1,803 \$52,331	2,432 \$54,744	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	795 \$56,055	14,396 \$45,173
55-59	162 \$16,045	435 \$32,270	442 \$34,886	376 \$34,319	373 \$35,448	1,745 \$40,895	1,686 \$44,111	2,164 \$45,921	1,967 \$50,509	1,397 \$60,141	1,604 \$59,191	477 \$59,970	477 \$59,970	477 \$59,970	477 \$59,970	477 \$59,970	477 \$59,970	477 \$59,970	477 \$59,970	477 \$59,970	477 \$59,970	477 \$59,970	477 \$59,970	477 \$59,970	477 \$59,970	477 \$59,970	12,828 \$47,568
60-64	87 \$15,547	228 \$29,711	197 \$35,968	182 \$30,477	213 \$34,155	911 \$41,773	964 \$46,085	1,262 \$46,648	1,074 \$52,170	745 \$59,888	665 \$65,944	755 \$68,815	755 \$68,815	755 \$68,815	755 \$68,815	755 \$68,815	755 \$68,815	755 \$68,815	755 \$68,815	755 \$68,815	755 \$68,815	755 \$68,815	755 \$68,815	755 \$68,815	755 \$68,815	755 \$68,815	7,283 \$50,232
65 & Over	68 \$13,565	131 \$20,379	96 \$24,713	91 \$22,318	84 \$26,614	338 \$31,020	292 \$41,465	380 \$45,251	306 \$49,192	211 \$60,175	181 \$73,044	312 \$92,159	312 \$92,159	312 \$92,159	312 \$92,159	312 \$92,159	312 \$92,159	312 \$92,159	312 \$92,159	312 \$92,159	312 \$92,159	312 \$92,159	312 \$92,159	312 \$92,159	312 \$92,159	312 \$92,159	2,490 \$48,090
Total	2,412 \$18,136	7,505 \$30,383	6,713 \$32,710	5,962 \$33,659	5,194 \$35,286	18,003 \$40,177	13,034 \$44,533	11,533 \$47,128	7,862 \$51,125	5,663 \$56,592	3,250 \$60,559	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	1,547 \$70,857	88,678 \$42,304

Teachers' Retirement System of Oklahoma
Comparison of Projected Benefits
Assuming a 1% or 2% COLA
Based on June 30, 2007 Actuarial Valuation

Fiscal Year	2% Annual COLA	1% Annual COLA	Difference
2009	\$ 929,285,057	\$ 921,776,620	\$ 7,508,437
2010	\$ 1,009,490,076	\$ 993,680,283	\$ 15,809,792
2011	\$ 1,092,875,813	\$ 1,068,198,481	\$ 24,677,332
2012	\$ 1,183,381,035	\$ 1,149,138,122	\$ 34,242,913
2013	\$ 1,271,743,610	\$ 1,227,241,490	\$ 44,502,120
2014	\$ 1,360,394,523	\$ 1,305,008,463	\$ 55,386,059
2015	\$ 1,447,568,245	\$ 1,380,674,458	\$ 66,893,787
2016	\$ 1,532,484,651	\$ 1,453,560,973	\$ 78,923,678
2017	\$ 1,615,459,071	\$ 1,523,784,064	\$ 91,675,007
2018	\$ 1,696,631,115	\$ 1,591,806,202	\$ 104,824,913
2019	\$ 1,774,625,319	\$ 1,656,218,841	\$ 118,406,478
2020	\$ 1,849,008,481	\$ 1,716,675,487	\$ 132,332,994
2021	\$ 1,919,899,792	\$ 1,773,410,302	\$ 146,489,490
2022	\$ 1,987,768,248	\$ 1,826,892,950	\$ 160,875,299
2023	\$ 2,054,383,654	\$ 1,879,034,869	\$ 175,348,785
2024	\$ 2,120,897,154	\$ 1,931,050,933	\$ 189,846,221
2025	\$ 2,187,134,961	\$ 1,982,880,533	\$ 204,254,428
2026	\$ 2,254,749,653	\$ 2,036,174,267	\$ 218,575,387
2027	\$ 2,324,283,288	\$ 2,091,568,300	\$ 232,714,988
2028	\$ 2,397,045,275	\$ 2,150,423,332	\$ 246,621,943
2029	\$ 2,472,846,419	\$ 2,212,592,435	\$ 260,253,984
2030	\$ 2,550,209,608	\$ 2,276,635,783	\$ 273,573,825
2031	\$ 2,629,853,065	\$ 2,343,331,817	\$ 286,521,248
2032	\$ 2,711,182,060	\$ 2,412,114,658	\$ 299,067,402
2033	\$ 2,795,040,915	\$ 2,483,859,124	\$ 311,181,791
2034	\$ 2,880,767,133	\$ 2,557,921,829	\$ 322,845,304
2035	\$ 2,964,317,114	\$ 2,630,265,426	\$ 334,051,688
2036	\$ 3,046,123,577	\$ 2,701,376,362	\$ 344,747,215
2037	\$ 3,128,272,026	\$ 2,773,356,964	\$ 354,915,062
2038	\$ 3,212,430,816	\$ 2,847,854,299	\$ 364,576,517
Total Over 30 Years	\$ 62,400,151,751	\$ 56,898,507,664	\$ 5,501,644,086