



**OKLAHOMA TEACHERS**  

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**RETIREMENT SYSTEM**

**BOARD OF TRUSTEES**

**REGULARLY SCHEDULED**  
**MEETING**

**OCTOBER 23, 2013**

**MEETING MATERIALS**

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**OTRS GENERAL INFORMATION – Period Ended June 30, 2012**

Client Types		Employers by Type	
Active	89,333	K12	565
Retirees	54,581	Regional University	23
Inactive	18,046	Comprehensive University	3
<b>Total</b>	<b>161,960</b>	Career Tech	28
		Other - Agencies	18

\*Pg. 8 2013 Actuarial

**FINANCIAL SUMMARY – Period Ended June 30, 2012**

Actuarial Information – Year Ended June 30, 2013		Financial Information – Year Ended June 30, 2012		
Assets	\$11,810 million	Revenues	Annual	Percent
Unfunded Liability	8,112 million	Member Contributions	291,385,506	26%
Funded Ratio	57.2%	Matching Funds	23,188,952	2%
Funding Period (years)	17	State Contributions	281,806,711	25%
		Employer Contributions	376,635,234	34%
		Investment Earnings	137,844,165	12%
		<b>Total Earnings</b>	<b>976,016,403</b>	
		Expenses		
		Refunds	32,076,398	3%
		Benefit Payments	1,036,132,587	97%
		Administrative	4,273,189	0%
		<b>Total Expenditures</b>	<b>1,072,482,174</b>	

\*Pg. 8 2013 Actuarial

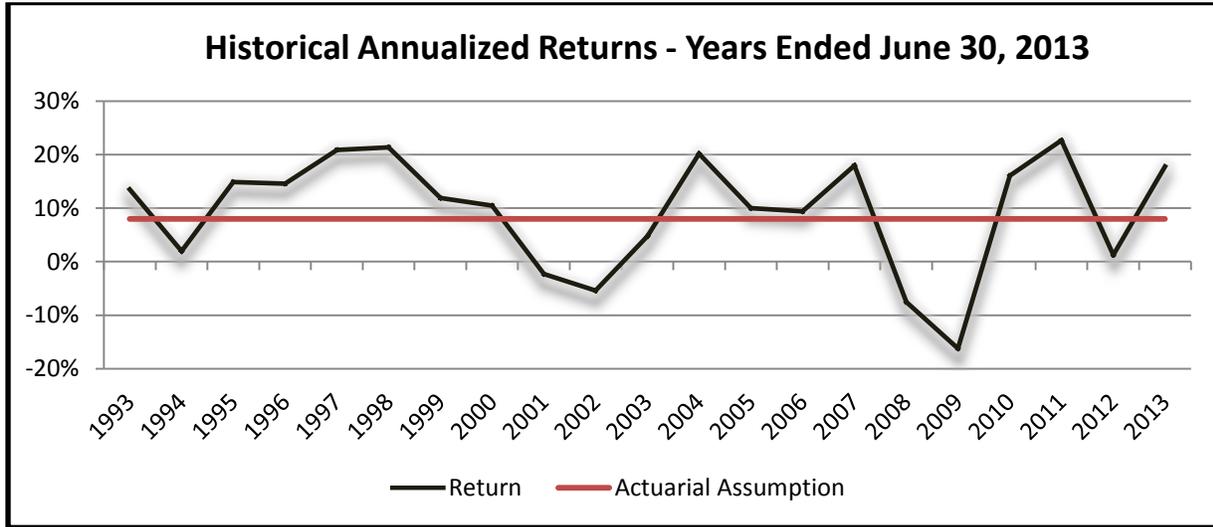
\*Pg. 22 2012 CAFR

**INVESTMENT INFORMATION – Period Ended June 30, 2013**

Period	1 Year	3 Year	5 Year	10 Year	Inception
Performance	17.8%	14.0%	7.7%	8.8%	9.4%
Assumption	8.0%	8.0%	8.0%	8.0%	8.0%

\*Gregory Group August Report

## RETURNS



## ASSET ALLOCATION – YEAR ENDED JUNE 30, 2013

	Current Allocation	New Target Allocation	Difference
Domestic Equity	45.80%	40.00%	5.80%
<b>International Equity</b>	<b>14.53%</b>	<b>17.50%</b>	<b>-2.97%</b>
Core Fixed Income	19.77%	17.50%	2.27%
<b>Opportunistic Assets</b>	<b>1.21%</b>	<b>0.00%</b>	<b>1.21%</b>
High Yield Fixed Income	5.15%	6.00%	-0.85%
<b>Real Estate</b>	<b>4.36%</b>	<b>7.00%</b>	<b>-2.64%</b>
Private Equity	2.08%	5.00%	-2.92%
<b>MLPs</b>	<b>6.33%</b>	<b>7.00%</b>	<b>-0.67%</b>
Cash	0.76%	0.00%	0.76%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>0.00%</b>

\*Gregory Group August Report

## INVESTMENT FEES - 2012

Manager Fees	\$34.079 million
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\*Pg. 59 2012 CAFR

**TEACHERS' RETIREMENT SYSTEM OF OKLAHOMA**  
**Regular Board Meeting**  
**Wednesday, October 23, 2013 – 9:00 AM**  
**TRS Administration Board Room**  
**2500 N. Lincoln Blvd., 5<sup>th</sup> Floor, Oklahoma City, OK**

**AGENDA**

- 1. ROLL CALL FOR QUORUM**
- 2. DISCUSSION AND POSSIBLE ACTION ON APPROVAL OF MINUTES**
  - a. September 25, 2013 Regular Board Meeting**
  - b. October 2, 2013 Special Meeting**
  - c. October 10, 2013 Special Meeting**
- 3. PRESENTING MANAGERS OVERVIEW**
- 4. PRESENTATION BY INVESTMENT MANAGER(S):**
  - a. Franklin Park**
  - b. Hoisington Investment**
- 5. DISCUSSION AND POSSIBLE ACTION ON INVESTMENT CONSULTANT MONTHLY REPORT**
- 6. DISCUSSION AND POSSIBLE ACTION ON MANAGER STATUS SUMMARY REPORT**

*The Board of Trustees may elect to make any changes to the status of any manager based on the information available at the Board meeting*
- 7. DISCUSSION AND POSSIBLE ACTION ON INVESTMENT COMMITTEE REPORT**
- 8. DISCUSSION AND POSSIBLE ACTION ON FY 2013 ACTUARIAL VALUATION REPORT**
- 9. DISCUSSION AND POSSIBLE ACTION ON APPROVAL OF CONTRACT WITH ADMINISTRATIVE LAW JUDGE DOUG PRICE**
- 10. DISCUSSION AND POSSIBLE ACTION ON MONTHLY LEGAL REPORT**
- 11. DISCUSSION AND POSSIBLE ACTION ON CLIENT SERVICES REPORT**
  - a. Performance Metrics**
  - b. Client Status Update**
- 12. DISCUSSION AND POSSIBLE ACTION ON FINANCE REPORT**
  - a. Cash Flow Report**
  - b. FY 2014 Quarterly Budget Reports**

**TEACHERS' RETIREMENT SYSTEM OF OKLAHOMA**  
**Regular Board Meeting**  
**Wednesday, October 23, 2013 – 9:00 AM**  
**TRS Administration Board Room**  
**2500 N. Lincoln Blvd., 5<sup>th</sup> Floor, Oklahoma City, OK**

**AGENDA (Continued)**

- 13. DISCUSSION AND POSSIBLE ACTION ON MIGRATION REPORT AND SOFTWARE DEVELOPMENT PROPOSAL**
- 14. DISCUSSION AND POSSIBLE ACTION ON ASSISTANT EXECUTIVE DIRECTOR'S REPORT**
- 15. DISCUSSION AND POSSIBLE ACTION ON PROPOSED SCHEDULE FOR 2014 BOARD OF TRUSTEES MEETINGS**
- 16. DISCUSSION AND POSSIBLE ACTION TO RESOLVE INTO EXECUTIVE SESSION PURSUANT TO 25 O.S. § 307(B)(4) FOR THE PURPOSE OF CONFIDENTIAL COMMUNICATIONS BETWEEN THE BOARD OF THE TEACHERS RETIREMENT SYSTEM AND ITS ATTORNEY CONCERNING POTENTIAL ACTION RELATED TO A PENDING CLAIM OR ACTION REGARDING THE BOND OF THE EXECUTIVE DIRECTOR**
  - a. Vote to convene into executive session
  - b. Vote to return to open session
- 17. DISCUSSION AND POSSIBLE ACTION TO RESOLVE INTO EXECUTIVE SESSION PURSUANT TO 25 O.S. § 307(B)(1) FOR THE PURPOSE OF CONFIDENTIAL COMMUNICATIONS BETWEEN THE TRUSTEES CONCERNING THE APPOINTMENT OF THE INTERIM EXECUTIVE DIRECTOR**
  - a. Vote to convene into executive session
  - b. Vote to return to open session
- 18. DISCUSSION AND POSSIBLE ACTION ON ITEMS DISCUSSED IN EXECUTIVE SESSION**
- 19. QUESTIONS AND COMMENTS FROM TRUSTEES**
- 20. NEW BUSINESS**
- 21. ADJOURNMENT**

**MEETING MINUTES  
SEPTEMBER 25, 2013  
BOARD OF TRUSTEES  
TEACHERS' RETIREMENT SYSTEM OF OKLAHOMA**

The regularly scheduled meeting of the Board of Trustees of the Teachers' Retirement System of Oklahoma was called to order by James Dickson, Chairman, at 9:00 A.M., in the Seville II Conference Room at the Renaissance Tulsa Hotel & Convention Center, 6808 South 107<sup>th</sup> East Avenue, Tulsa, OK. The meeting notice and agenda were posted in accordance with 25 O.S. Section 311(A)(11).

**TRUSTEES PRESENT:**

James Dickson, <i>Chair</i>	Stewart Meyers, Jr.*
William Peacher, <i>Vice-Chair</i>	Billie Stephenson
Beth Kerr*, <i>Secretary</i>	Gary Trennepohl
Roger Gaddis	Greg Winters
Jill Geiger	

**TRUSTEES ABSENT:**

Sherrie Barnes	Phillip Lewis
Vernon Florence	Jonathan Small

**TRS STAFF PRESENT:**

James R. Wilbanks, <i>Executive Director</i>	Joe Ezzell*, <i>Assistant Executive Director</i>
Grant Soderberg, <i>Investment Associate</i>	Josh Richardson, <i>Director of Strategic Initiatives</i>
Lisa Giles, <i>Client Services Manager</i>	Grant Rohlmeier, <i>Business Analyst</i>
Susan Yingling, <i>Executive Assistant</i>	

**LEGAL COUNSEL PRESENT:**

Julie Ezell, *Assistant Attorney General*

**INVESTMENT CONSULTANT PRESENT:**

Greg Weaver, <i>Gregory W. Group</i>	Douglas J. Anderson, <i>Gregory W. Group</i>
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**OTHERS PRESENT:**

Gene Hopper\*, *Hopper & Associates*  
Elaine Dodd, *Oklahoma Retired Educators Association*  
Norman Cooper, *Oklahoma Retired Educators Association*  
Chancen Flick, *Oklahoma Education Association*

\*Denotes either late arrival or early departure

**ITEM 1 – ROLL CALL FOR QUORUM:** Chairman Dickson called the Board meeting to order and asked for a poll to determine if a quorum was present. Trustees responding were as follows: Mr. Gaddis, Ms. Geiger, Ms. Kerr, Mr. Meyers, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

**ITEM 2 – MEETING MINUTES:** A motion was made by Mr. Peacher with a second made by Dr. Trennepohl to approve the August 26 - 28, 2013 Board meeting minutes as presented. The motion carried by a unanimous voice vote. Trustees responding were Mr. Gaddis, Ms. Geiger, Ms. Kerr, Mr. Meyers, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

**ITEM 3 – OVERVIEW OF PRESENTING MANAGERS:** Greg Weaver and Douglas Anderson of Gregory W. Group, Investment Consultants to the Board, gave the Board an overview of PIMCO and MacKay Shields, presenting managers to the Board. No action was necessary.

**ITEM 4 – PRESENTATIONS BY INVESTMENT MANAGERS:** PIMCO, Investment Managers for the Alternative Fixed Income portfolio; and MacKay Shields, Investment Managers for the Core Fixed Income portfolio; were present to give respective presentations to the Board. No action was necessary.

**ITEM 5 – INVESTMENT CONSULTANT MONTHLY REPORT:** Greg Weaver and Douglas Anderson of Gregory W. Group, Investment Consultants to the Board, gave the Board their monthly report. No action was necessary.

**ITEM 6 – MANAGER STATUS SUMMARY REPORT:** Greg Weaver and Douglas Anderson of Gregory W. Group, Investment Consultants to the Board, gave the Board the Manager Status Summary Report. A motion was made by Dr. Trennepohl, with a second made by Ms. Geiger, to change the status of Wellington Management Company, Investment Managers for the MID-CAP Growth portfolio, from ‘On Alert’ to ‘In Compliance’. The motion carried by a unanimous voice vote. Trustees responding were Mr. Gaddis, Ms. Geiger, Ms. Kerr, Mr. Meyers, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

**ITEM 7 – INVESTMENT COMMITTEE REPORT:** Mr. Peacher, Chairman of the Investment Committee, advised the Board that no report was available because a quorum had not been present for the Investment Committee Meeting scheduled for September 24, 2013. No action was necessary.

**ITEM 8 – AUDIT COMMITTEE REPORT:** Mr. Meyers, Chairman of the Audit Committee, informed the Board there was no report. No action was necessary.

*A break was taken from 10:45 a.m. to 10:50 a.m.*

**ITEM 13 – EXECUTIVE SESSION RELATING TO A PENDING INVESTIGATION, CLAIM OR ACTION REGARDING INTERNAL PERSONNEL POLICIES AND PROCEDURES**

**ITEM 14 – EXECUTIVE SESSION REGARDING PERSONNEL MATTERS RELATING TO THE POSITION OF EXECUTIVE DIRECTOR OF THE OTRS**

On the advice of legal counsel, the Board made one motion to resolve into Executive Session to discuss both Item 13 and Item 14.

A. A motion was made by Ms. Geiger with a second made by Dr. Winters to resolve into Executive Session at 10:58 a.m. The motion carried by a unanimous voice vote. Trustees responding were Mr. Gaddis, Ms. Geiger, Ms. Kerr, Mr. Meyers, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

*Ms. Kerr and Mr. Meyers left at 12:10 p.m.*

*A break for lunch was taken from 12:30 p.m. to 12:45 p.m.*

B. A motion was made by Mr. Gaddis with a second made by Ms. Geiger to return to Open Session at 1:57 p.m. The motion carried by a unanimous voice vote. Trustees responding were Mr. Gaddis, Ms. Geiger, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

**ITEM 15 – POSSIBLE ACTION ON ITEMS DISCUSSED IN EXECUTIVE SESSION:** Chairman Dickson announced that there was no action on items discussed in Executive Session and no action was necessary.

**ITEM 9 – 2013/ 2014 BOARD STRATEGIC PLAN:** Gene Hopper presented the Board with a retreat summary from the August 2013 Board Retreat. No action was necessary.

**ITEM 10 – ETHICS AND COMPLIANCE HOTLINE PROVIDER:** Dr. Wilbanks reviewed proposals from several hotline service providers and recommended the Board select Navex Global/Ethics Point. A motion was made by Dr. Winters with a second made by Mr. Peacher to approve the use of Navex Global/Ethics Point as the Ethics Hotline and Compliance provider. The motion carried by a unanimous voice vote. Trustees responding were Mr. Gaddis, Ms. Geiger, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

**ITEM 11 – TRUSTEE POLICY MANUAL/GOVERNANCE COMMITTEE CHARTER:** Julie Ezell, Legal Counsel to the Board, presented a draft Governance Committee Charter to the Board. After discussion, a motion was made by Dr. Trennepohl with a second by Ms. Geiger to approve the Governance Committee Charter as written. The motion carried by a unanimous voice vote. Trustees responding were Mr. Gaddis, Ms. Geiger, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

**ITEM 12 – ANNOUNCEMENT OF GOVERNANCE COMMITTEE ASSIGNMENTS:** Chairman Dickson announced to the Board that Dr. Trennepohl, Ms. Kerr, and Mr. Meyers would serve on the Governance Committee with Dr. Trennepohl serving as Chair.

**ITEM 16 – CLIENT SERVICES REPORT:** Lisa Giles, OTRS Client Services Manager, presented her report to the Board. A motion was made by Dr. Trennepohl with a second made by Ms. Geiger to approve the Client Services Report. The motion carried by a unanimous voice vote. Trustees responding were Mr. Gaddis, Ms. Geiger, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

**ITEM 17 – FINANCE REPORT:** Joe Ezzell, OTRS Assistant Executive Director, presented the Finance Report to the Board. No action was necessary.

**ITEM 18 – MIGRATION REPORT:** Josh Richardson, OTRS Director of Strategic Initiatives, updated the Board on OTRS' data migration efforts. After a brief discussion, no action was necessary.

**ITEM 19 – EXECUTIVE DIRECTOR REPORT:** Dr. Wilbanks gave his report to the Board. No action was necessary.

**ITEM 20 – QUESTIONS AND COMMENTS FROM TRUSTEES:** There were no questions or comments from the Trustees.

**ITEM 21 – NEW BUSINESS:** There was no further business from the Board.

**ITEM 22 – ADJOURNMENT:** There being no further business, a motion was made by Dr. Winters with a second made by Ms. Stephenson to adjourn. The meeting was adjourned at 2:50 p.m. Trustees present at adjournment were Mr. Gaddis, Ms. Geiger, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

**BOARD OF TRUSTEES, TEACHERS' RETIREMENT SYSTEM OF OKLAHOMA**

**BY:** \_\_\_\_\_  
**James Dickson, Chairman**

**ATTEST:**

**BY:** \_\_\_\_\_  
**Beth Kerr, Secretary**

Certified correct minutes, subject to approval of the Board of Trustees of the Teachers' Retirement System of Oklahoma, will be available at its next regularly scheduled meeting on October 23, 2013.

**BY:** \_\_\_\_\_  
**Susan Yingling, Executive Assistant to the Executive Director**

**MEETING MINUTES  
OCTOBER 2, 2013  
BOARD OF TRUSTEES  
TEACHERS' RETIREMENT SYSTEM OF OKLAHOMA**

A special meeting of the Board of Trustees of the Teachers' Retirement System of Oklahoma was called to order by James Dickson, Chairman, at 1:04 P.M., in the Charles Nesbitt Conference Room at the Office of the Oklahoma Attorney General, 313 NE 21<sup>st</sup> Street, Oklahoma City, OK. The meeting notice and agenda were posted in accordance with 25 O.S. Section 311(A)(11).

**TRUSTEES PRESENT:**

James Dickson, <i>Chair</i>	Jill Geiger
William Peacher, <i>Vice-Chair</i>	Phillip Lewis
Beth Kerr, <i>Secretary</i>	Stewart Meyers, Jr.
Janet Barresi	Billie Stephenson
Vernon Florence	Gary Trennepohl
Roger Gaddis	Greg Winters

**TRUSTEES ABSENT:**

Sherrie Barnes

**LEGAL COUNSEL PRESENT:**

Julie Ezell, *Assistant Attorney General*

**OTHERS PRESENT:**

Randy Ellis, *The Oklahoman*  
Joel Riter  
Joel Robison, *State Department of Education*  
Jonathan Small, *Designee of Janet Barresi, State Superintendent*

**ITEM 1 – ROLL CALL FOR QUORUM:** Chairman Dickson called the Board meeting to order and asked for a poll to determine if a quorum was present. Trustees responding were as follows: Dr. Barresi, Mr. Florence, Mr. Gaddis, Ms. Geiger, Ms. Kerr, Dr. Lewis, Mr. Meyers, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

**ITEM 2 – EXECUTIVE SESSION RELATING TO A PENDING INVESTIGATION, CLAIM OR ACTION REGARDING INTERNAL PERSONNEL POLICIES AND PROCEDURES:** A motion was made by Dr. Trennepohl with a second by Ms. Stephenson to resolve into Executive Session at 1:08 P.M. Once in Executive Session, Julie Ezell, Assistant Attorney General, informed the Board that it would be best to go into Executive Session on both agenda items. The prior motion was made solely for Item 2 on the agenda.

**ITEM 3 - EXECUTIVE SESSION REGARDING PERSONNEL MATTERS RELATING TO THE POSITION OF EXECUTIVE DIRECTOR OF THE OTRS**

The Board went into open session and a motion was made by Ms. Geiger with a second by Dr. Barresi to reconvene into Executive Session at 1:10 P.M. for both agenda Items 2 and 3. Trustees responding were as follows: Dr. Barresi, Mr. Florence, Mr. Gaddis, Ms. Geiger, Ms. Kerr, Dr. Lewis, Mr. Meyers, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

After extensive discussion regarding the employment of the Executive Director, no action was taken during the Executive Session.

A motion was made and seconded to adjourn from Executive Session and return to Open Session at 2:43 P.M. Trustees responding were as follows: Dr. Barresi, Mr. Florence, Mr. Gaddis, Ms. Geiger, Ms. Kerr, Dr. Lewis, Mr. Meyers, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

Open Session reconvened at 2:45 P.M.

**ITEM 4 – DISCUSSION AND POSSIBLE ACTION ON ITEMS DISCUSSED IN EXECUTIVE SESSIONS:** A motion was made by Dr. Barresi with a second by Dr. Trennepohl to terminate the employment of James Wilbanks, the executive director for the Oklahoma Teachers Retirement System. A roll call vote was made and the vote in favor of termination was unanimous. Trustees responding were as follows: Dr. Barresi, Mr. Florence, Mr. Gaddis, Ms. Geiger, Ms. Kerr, Dr. Lewis, Mr. Meyers, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

**ITEM 5 – QUESTIONS AND COMMENTS FROM TRUSTEES:** There were no questions or comments from the Trustees.

**ITEM 6 – NEW BUSINESS:** There was no further business from the Board.

**ITEM 7 – ADJOURNMENT:** There being no further business, a motion was made by Dr. Winters with a second made by Mr. Florence to adjourn. The meeting was adjourned at 2:50 p.m. Trustees present at adjournment were: Dr. Barresi, Mr. Florence, Mr. Gaddis, Ms. Geiger, Ms. Kerr, Dr. Lewis, Mr. Meyers, Mr. Peacher, Ms. Stephenson, Dr. Trennepohl, Dr. Winters, and Chairman Dickson.

**BOARD OF TRUSTEES, TEACHERS’ RETIREMENT SYSTEM OF OKLAHOMA**

**BY:** \_\_\_\_\_  
**James Dickson, Chairman**

**ATTEST:**

**BY:** \_\_\_\_\_  
**Beth Kerr, Secretary**

Certified correct minutes, subject to approval of the Board of Trustees of the Teachers’ Retirement System of Oklahoma, will be available at its next regularly scheduled meeting on October 23, 2013.

**MEETING MINUTES  
OCTOBER 10, 2013  
BOARD OF TRUSTEES  
TEACHERS' RETIREMENT SYSTEM OF OKLAHOMA**

A special meeting of the Board of Trustees of the Teachers' Retirement System of Oklahoma was called to order by James Dickson, Chairman, at 1:02 P.M., in the Administration Board Room, 5<sup>th</sup> Floor, Oliver Hodge Education Building, 2500 N. Lincoln Blvd., OKC, OK. The meeting notice and agenda were posted in accordance with 25 O.S. Section 311(A)(11).

**TRUSTEES PRESENT:**

James Dickson, <i>Chair</i>	Jill Geiger
Beth Kerr, <i>Secretary</i>	Stewart Meyers, Jr.
Vernon Florence	Billie Stephenson
Roger Gaddis	Greg Winters

**TRUSTEES ABSENT:**

Sherrie Barnes	Jonathan Small
Phillip Lewis	Gary Trennepohl
Bill Peacher	

**TRS STAFF PRESENT:**

Josh Richardson, *Director of Strategic Initiatives*  
Susan Yingling, *Executive Assistant*

**LEGAL COUNSEL PRESENT:**

Julie Ezell, *Assistant Attorney General*

**OTHERS PRESENT:**

Norman Cooper, *OK Retired Educators Association*  
Chancen Flick, *Oklahoma Education Association*  
Kym Koch Thompson

**ITEM 1 – ROLL CALL FOR QUORUM:** Chairman Dickson called the Board meeting to order and asked for a poll to determine if a quorum was present. Trustees responding were as follows: Mr. Florence, Mr. Gaddis, Ms. Geiger, Ms. Kerr, Mr. Meyers, Ms. Stephenson, Dr. Winters, and Chairman Dickson.

**ITEM 2 – EXECUTIVE SESSION RELATING TO THE TERMINATION OF THE EMPLOYMENT OF THE EXECUTIVE DIRECTOR:** A motion was made Dr. Winters with a second by Mr. Florence to resolve into Executive Session at 1:04 P.M. Trustees responding were as follows: Mr. Florence, Mr. Gaddis, Ms. Geiger, Ms. Kerr, Mr. Meyers, Ms. Stephenson, Dr. Winters, and Chairman Dickson.

After extensive discussion, no action was taken during the Executive Session.

A motion was made by Ms. Geiger and with a second by Dr. Winters to adjourn from Executive Session and return to Open Session at 2:26 P.M. Trustees responding were as follows: Mr. Florence, Mr. Gaddis, Ms. Geiger, Ms. Kerr, Mr. Meyers, Ms. Stephenson, Dr. Winters, and Chairman Dickson.

*A break was taken from 2:26 p.m. to 2:36 p.m.*

**ITEM 3 – DISCUSSION AND POSSIBLE ACTION ON ITEMS DISCUSSED IN EXECUTIVE SESSION:** A motion was made by Dr. Winters with a second by Ms. Geiger to give spokesperson authority to Chairman Dickson regarding the termination of James Wilbanks. Trustees responding were as follows: Mr. Florence, Mr. Gaddis, Ms. Geiger, Ms. Kerr, Mr. Meyers, Ms. Stephenson, Dr. Winters, and Chairman Dickson.

**ITEM 4 – DISCUSSION AND POSSIBLE ACTION ON CONTRACT FOR LEGAL SERVICES WITH THE OFFICE OF THE ATTORNEY GENERAL:** Julie Ezell gave a brief presentation regarding the Fiscal Year 2014 Legal Services contract between OTRS and the Office of the Attorney General. Ms. Ezell explained that the new contract, effective November 1, 2013 – June 30, 2014, would add an additional 25% time equivalent employee and cost \$21,498.72. After some discussion, a motion was made by Mr. Florence with a second by Ms. Kerr to approve the FY 2014 Legal Services Contract. Trustees responding were as follows: Mr. Florence, Mr. Gaddis, Ms. Geiger, Ms. Kerr, Mr. Meyers, Ms. Stephenson, Dr. Winters, and Chairman Dickson.

**ITEM 5 – QUESTIONS AND COMMENTS FROM TRUSTEES:** Mr. Gaddis said he had just returned from the National Council of Teacher Retirement Conference in Washington D.C. and looked forward to sharing what he had learned with the rest of the Board.

**ITEM 6 – NEW BUSINESS:** There was no further business from the Board.

**ITEM 7 – ADJOURNMENT:** There being no further business, a motion was made by Mr. Florence with a second made by Dr. Winters to adjourn. The meeting was adjourned at 2:40 p.m. Trustees present at adjournment were: Mr. Florence, Mr. Gaddis, Ms. Geiger, Ms. Kerr, Mr. Meyers, Ms. Stephenson, Dr. Winters, and Chairman Dickson.

**BOARD OF TRUSTEES, TEACHERS’ RETIREMENT SYSTEM OF OKLAHOMA**

**BY:** \_\_\_\_\_  
**James Dickson, Chairman**

**ATTEST:**

**BY:** \_\_\_\_\_  
**Beth Kerr, Secretary**

Certified correct minutes, subject to approval of the Board of Trustees of the Teachers’ Retirement System of Oklahoma, will be available at its next regularly scheduled meeting on October 23, 2013.

**BY:** \_\_\_\_\_  
**Susan Yingling, Executive Assistant to the Executive Director**

- **Portfolio Managers:** Michael Bacine
- **Headquarters:** Bala Cynwyd, PA
- **Investment Mandate:** Private Equity

### Portfolio Summary

In January 2010, Oklahoma Teachers Retirement System ("OTRS") retained Franklin Park to continue the development of its private equity investment portfolio. To date, OTRS has committed \$897.5 million to invest in private equity funds. This quarterly report provides an overview and analysis of OTRS' private equity portfolio, as of June 30, 2013, which includes investments made through both OTRS Legacy P/E Assets Fund, L.P. ("OTRS Legacy") and OTRS/FP Private Equity Fund, L.P. ("OTRS/FP"). The fair value of OTRS' private equity portfolio is \$252.2 million as of June 30, 2013. However, given the young age of the portfolio, performance is deemed not yet meaningful.

### Investment Activity

Through June 30, 2013, OTRS Legacy and OTRS/FP committed a combined \$742.5 million to twenty- one primary funds, two secondary funds and seven fund-of- funds. Of the \$742.5 million committed, approximately 34% has been contributed, 12% of contributed capital has been returned, and a total value of 1.1 times contributed capital has been generated on a gross and net basis.

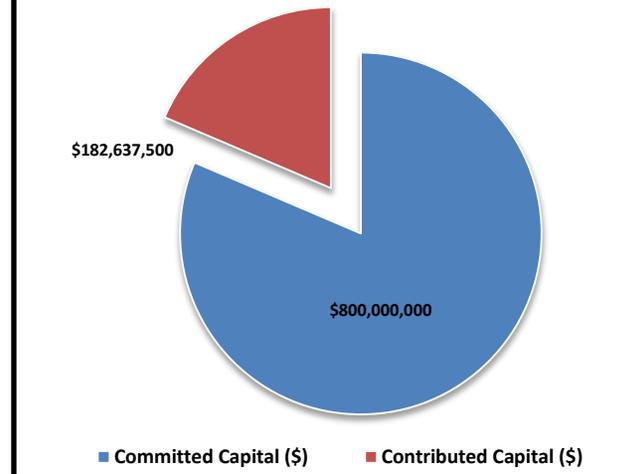
### Commitment Activity

During the quarter ended June 30, 2013, OTRS/FP closed on capital commitments totaling \$120 million to the following four funds:

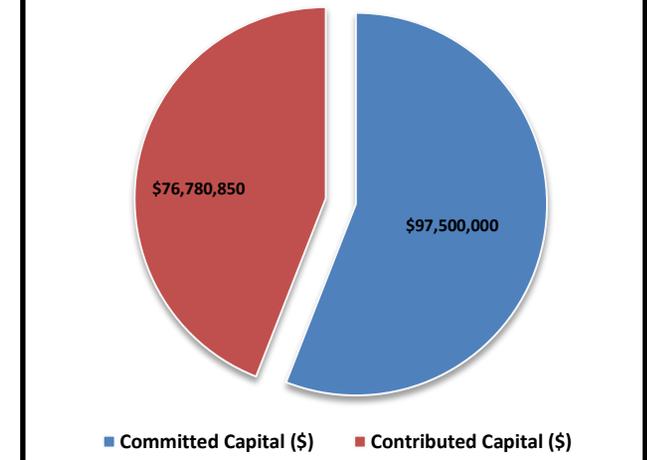
- Franklin Park International Fund 2013 (\$20 million)
- Franklin Park Venture Fund Series 2013 (\$20 million)
- KPS Special Situations Fund IV (\$40 million)
- Levine Leichtman Capital Partners V (\$40 million)

Further, since June 30, 2013, OTRS/FP has closed on a \$40 million capital commitment to Altaris Health Partners III.

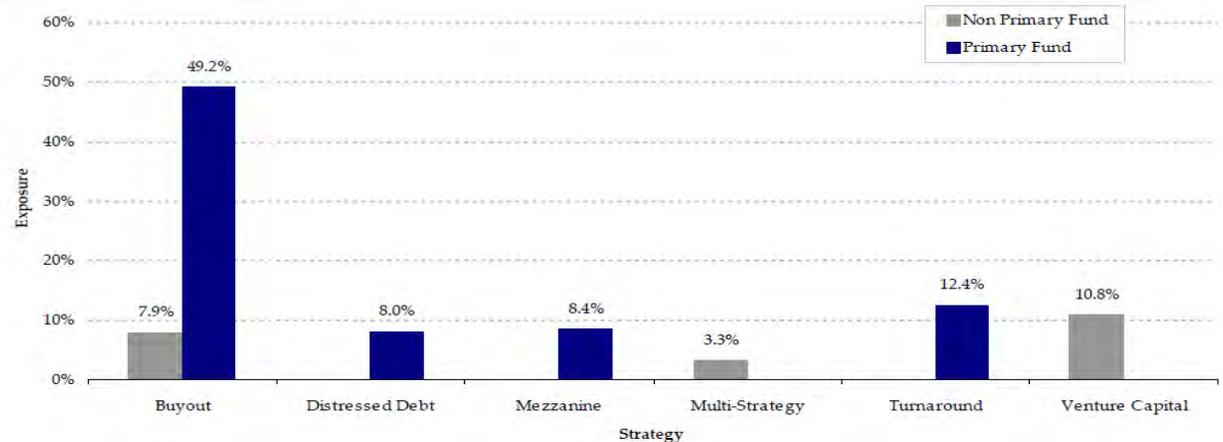
## OTRS/FP Portfolio



## OTRS Legacy Portfolio



### Exposure By Strategy and Type



• Exposure is defined as the sum of an investor's Remaining Value plus Unfunded Commitment.

• Primary Fund represents interests in private equity funds acquired directly from the seller (i.e. fund manager). Non Primary Fund represents interests in private equity funds acquired through a commitment to a fund-of-funds or secondary fund-of-funds.

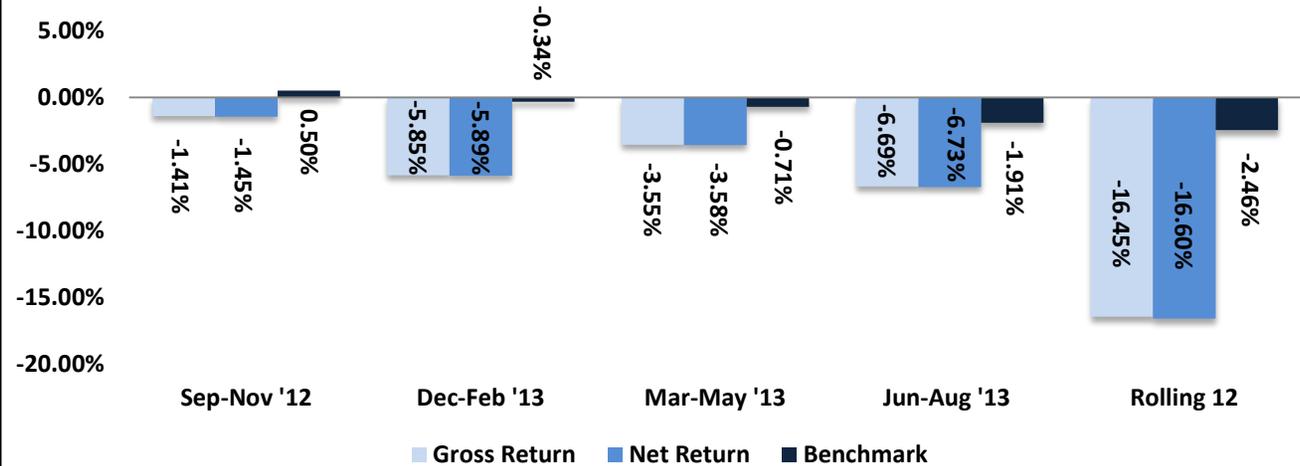
- **Portfolio Managers:** David Hoisington
- **Headquarters:** Austin, TX
- **Date Hired:** 2004
- **Investment Mandate:** Fixed Income  
OTRS Strategy AUM: \$254,976,216.56

### Manager Portfolio Summary

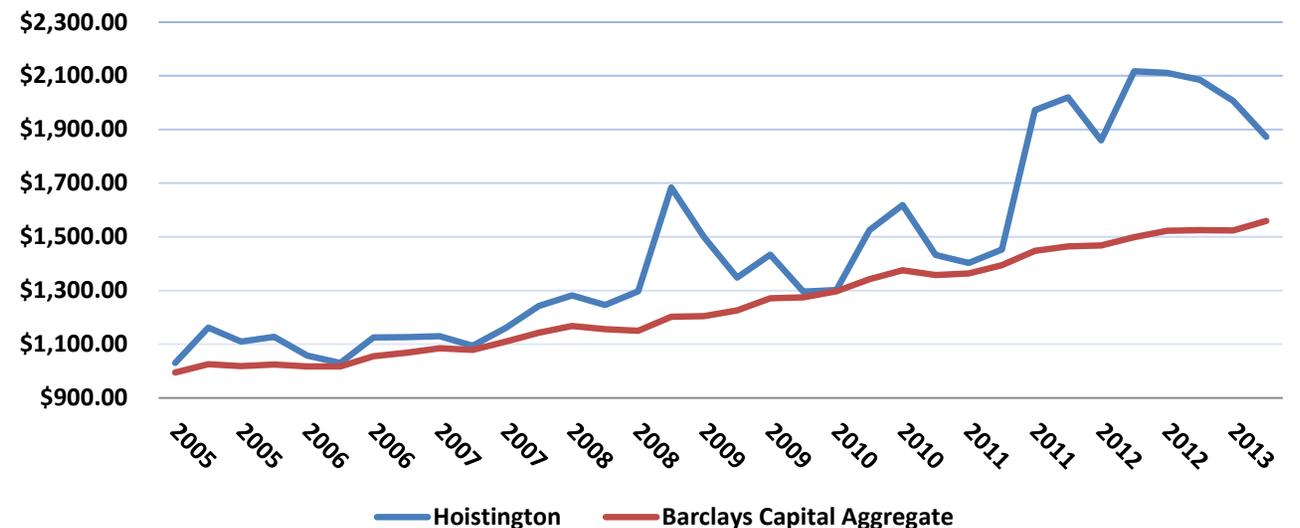
Consistent with our multi-year investment discipline of focusing on the relationship between movements in inflation and long term Treasury yields, the portfolio remains invested in long maturity, coupon and zero coupon U.S. Treasury securities. Inflation has continued its multi-year trend lower this year and with the knowledge that long term Treasury yields follow the path of inflation, long term Treasury yields will eventually move significantly lower providing price appreciation as well as continued coupon income. The portfolio is well suited for the current disinflationary environment.

\*All Data from JPM as of August 2013

### Hoisington Rolling 12 Month Performance



### Growth of \$1,000 vs. Index



# Manager Profile - Franklin Park



Asset Class:	Private Equity
Status:	In Compliance
Portfolio Size (including legacy portfolio):	\$260,863,770
Inception Date:	4/1/2010
Target Allocation	5.0%
Actual Allocation (including legacy portfolio)	2.1%
Annual Management Fee:	0.30%
Location:	Philadelphia, Pennsylvania
Structure:	Privately Held
Portfolio Management Team:	Michael Bacine

## Notes:

Franklin Park believes the primary reason to invest in private equity is to generate premium returns to public equity. They view the dispersion of returns among private equity managers as evidence of exploitable market inefficiency. They advise clients to remain flexible in their sector allocation targets. This allows Franklin Park to be opportunistic in their investment program and avoids forcing assets into funds or market segments they view as sub-par. Franklin Park are strong proponents of a transparent investment process. The firm offers clients an international and a venture capital fund every year to access that subset of the private equity market.

This portfolio has provided adequate returns since inception. Private equity portfolios take time to construct and overcome early expenses.

Represented by:	Michael Bacine, Managing Director Kristine O'Connor, Chief Financial Officer
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Founded: 2003

Return Profile (as of June 30, 2013)	Since Inception	Last 3 Years	Last 1 Year			
Franklin Park	-4.0%	-3.7%	3.6%			

Risk Characteristics	Committed Capital	Contributed Capital	Unfunded Commitment	Distributed Capital	Remaining Value	Net IRR
Legacy Portfolio	\$97,500,000	\$76,780,850	\$47,011,017	\$22,729,871	\$76,790,736	12.0%
Franklin Park	\$800,000,000	\$182,637,500	\$624,320,693	\$767,459	\$175,527,272	-
Total	\$897,500,000	\$259,418,250	\$671,331,710	\$23,497,330	\$252,218,008	4.9%

# Manager Profile - Hoisington Investment Management



Asset Class:	Active Duration Fixed Income
Status:	In Compliance
Portfolio Size:	\$255,016,976
Inception Date:	11/1/2004
Initial Funding:	\$100,887,144
Subsequent Funding:	-\$19,486,887
Annual Management Fee:	0.15%
Location:	Austin, Texas
Structure:	Privately Held
Portfolio Management Team:	Van Hoisington Dr. Lacy Hunt Janice Bright David Hoisington Van Hoisington, Jr. John Dahlheim
Represented by:	Janice Bright David Hoisington

## Notes:

Hoisington employs a unique investment process to manage active duration bond portfolios. The firm invests only in U.S. Treasury issues. Their investment process focuses completely on managing portfolio duration to maximize total return. The portfolio's returns can be volatile. However, returns have shown negative correlation to equities and equity market volatility.

The firm has provided exceptionally strong results since inception. Performance could be subdued in the future should interest rates rise.

Hoisington is a stable organization. The firm was founded in 1981 and currently has approximately \$5 billion in client assets under management. There have been no major changes in the management team since the firm was hired.

Firm AUM:	\$4.5 Billion
Product AUM:	\$2.8 Billion

Return Profile	Since Inception	Last 5 Years	Last 3 Years	Last Year	Last Quarter	Last Month
Hoisington Active Duration	7.3%	7.1%	4.0%	-14.1%	-3.3%	0.0%
BC Aggregate Bond Index	4.6%	5.4%	2.9%	-1.7%	0.6%	0.9%
BC Long Treasury Index	6.2%	6.5%	3.7%	-10.6%	-2.2%	0.4%
91 Day T-bills	1.7%	0.2%	0.1%	0.1%	0.0%	0.0%

Risk Characteristics	3 Year Std Deviation	Sharpe Ratio	Duration	Credit Quality	Yield to Maturity	Number of Holdings
Hoisington	17.56	0.08	19.4	AAA	3.66	11
BC Aggregate Bond Index	2.82	0.99	5.1	A	2.34	-
BC Long Treasury Index	12.70	0.34	16.4	AAA	-	-

# Monthly Asset Allocation Review



Asset Class	Total Market Value	Current Percentage	New Target Percentage	Difference	Notes
All Cap/Large Cap	2,776,798,460	22.4%	17.0%	5.4%	Excess allocation bound for Private Equity
Mid Cap	1,728,101,691	13.9%	13.0%	0.9%	
Small Cap	1,256,114,710	10.1%	10.0%	0.1%	
<b>Total Domestic Equity</b>	<b>5,761,014,861</b>	<b>46.4%</b>	<b>40.0%</b>	<b>6.4%</b>	
Large Cap International Equity	1,433,567,957	11.5%	11.5%	0.0%	
Small Cap International Equity	779,577,448	6.3%	6.0%	0.3%	
<b>Total International Equity</b>	<b>2,214,206,125</b>	<b>17.8%</b>	<b>17.5%</b>	<b>0.3%</b>	
<b>Core Fixed Income</b>	<b>1,959,250,332</b>	<b>15.8%</b>	<b>17.5%</b>	<b>-1.7%</b>	
High Yield Bonds	713,327,921	5.7%	6.0%	-0.3%	
MLPs	750,580,625	6.0%	7.0%	-1.0%	
Private Equity	260,863,770	2.1%	5.0%	-2.9%	
Real Estate	530,077,146	4.3%	7.0%	-2.7%	
Opportunistic Assets	152,593,944	1.2%	0.0%	1.2%	
<b>Total Non-Core Assets</b>	<b>2,407,443,406</b>	<b>19.4%</b>	<b>25.0%</b>	<b>-5.6%</b>	
<b>Cash</b>	<b>81,104,800</b>	<b>0.7%</b>	<b>0.0%</b>	<b>0.7%</b>	
<b>Composite</b>	<b>12,423,058,848</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>	

# Total Fund + Class Composite Summary

As of September 30, 2013

	Market Value	Inception Date	Time Since Inception (Years)	Since Inception	10 Years	5 Years	3 Years	1 Year	Fiscal YTD	Last Quarter	Last Month
<b>Total Fund (Gross of Fees)</b>	<b>12,423,058,848</b>	<b>12/1/1991</b>	<b>21.8</b>	<b>9.6</b>	<b>9.0</b>	<b>10.8</b>	<b>12.7</b>	<b>18.7</b>	<b>6.2</b>	<b>6.2</b>	<b>3.7</b>
<b>Total Fund (Net of Fees)</b>				<b>9.2</b>	<b>8.6</b>	<b>10.4</b>	<b>12.3</b>	<b>18.3</b>	<b>5.8</b>	<b>6.1</b>	<b>3.6</b>
<i>Allocation Index</i>				9.3	7.9	9.3	11.8	14.9	5.1	5.1	3.5
<i>Actuarial Assumption</i>				8.0	8.0	8.0	8.0	8.0	6.6	1.9	0.6
Total Domestic Equity	5,761,014,861 46.4%	4/1/1990	23.5	10.8	9.4	12.0	17.3	28.8	8.1	8.1	4.3
<i>S&amp;P 500</i>				9.3	7.6	10.0	16.3	19.3	5.2	5.2	3.1
Total All Cap Equity	804,877,142 6.5%	9/1/2006	7.1	6.4	-	10.3	16.3	24.2	6.4	6.4	3.6
<i>Russell 3000</i>				6.3	-	10.6	16.8	21.6	6.3	6.3	3.7
Total Large Cap Active Equity	937,987,288 7.6%	1/1/1995	18.8	10.1	7.9	10.7	17.8	26.3	6.5	6.5	2.8
<i>S&amp;P 500</i>				9.1	7.1	7.3	18.4	18.7	2.0	0.7	-2.9
Total Mid Cap Equity	1,728,101,691 13.9%	11/1/1998	14.9	10.1	11.8	15.1	19.1	33.9	9.5	9.5	4.8
<i>Russell Mid Cap</i>				9.2	7.6	10.0	16.3	19.3	5.2	5.2	3.1
Total Small Cap Equity	1,256,114,710 10.1%	2/1/1998	15.7	9.3	10.1	11.7	15.8	32.7	10.4	10.4	6.1
<i>Russell 2000</i>				7.4	9.6	11.2	18.3	30.1	10.2	10.2	6.4
Total International Equity	2,214,206,125 17.8%	2/1/1998	15.7	9.4	9.4	7.8	9.8	24.7	12.3	12.3	7.7
<i>MSCI ACWI ex-US</i>				-	8.8	6.3	6.0	16.5	10.1	10.1	7.0
Core Fixed Income (ex- High Yield)	1,959,250,332 15.8%	4/1/1990	23.5	7.3	6.2	8.2	5.1	-1.4	0.4	0.4	0.8
<i>Barclays Aggregate</i>					4.6	5.4	2.9	-1.7	0.6	0.6	0.9
Master Limited Partnerships	750,580,625 6.0%	2/28/2011	2.6	17.8	-	-	-	25.5	0.4	0.4	2.0
<i>Alerian MLP Index</i>				13.5	-	-	-	17.0	-0.7	-0.7	2.3
High Yield Fixed Income	713,327,921 5.7%	2/1/2009	4.7	16.4	-	-	9.2	7.8	2.2	2.2	1.5
<i>ML High Yield II</i>				17.9	-	-	8.9	7.1	2.3	2.3	1.0
Core Real Estate	530,077,146 4.3%	4/1/2011	2.5	-	-	-	-	-	-	-	-
<i>NCREIF</i>				-	-	-	-	-	-	-	-
Cash	81,104,800 0.7%	4/1/1990	23.5	-	-	-	-	-	-	-	-
<i>91 Day T-bill</i>				-	1.7	0.2	0.1	0.1	0.0	0.0	0.0

# Equity Portfolios Summary

As of September 30, 2013



	Market Value	Inception Date	Time Since Inception (Years)	Since Inception	10 Years	5 Years	3 Years	1 Year	Fiscal YTD	Last Quarter	Last Month
Hotchkis & Wiley Large Cap Russell 1000 Value	489,982,599 3.9%	4/1/1990	23.5	10.9	8.1	13.6	18.4	32.8	6.3	6.3	2.8
				9.9	8.0	8.9	16.2	22.3	3.9	3.9	2.5
Sawgrass Russell 1000 Growth	448,004,689 3.6%	7/1/2006	7.3	7.5	-	11.1	17.8	20.0	6.7	6.7	2.7
				7.9	-	12.1	16.9	19.3	8.1	8.1	4.5
ARI All Cap Russell 3000 Value	403,186,507 3.2%	9/1/2006	7.1	5.6	-	10.0	16.2	22.8	5.7	5.7	3.4
				4.6	-	8.9	16.3	22.7	4.2	4.2	2.8
EPOCH All Cap Russell 3000 Value	401,690,635 3.2%	9/1/2006	7.1	7.1	-	10.4	16.3	25.8	7.1	7.1	3.8
				4.6	-	8.9	16.3	22.7	4.2	4.2	2.8
NT Cap Weighted Passive S&P 500 Cap Weighted	513,707,455 4.1%	4/1/2012	1.5	15.8	-	-	-	19.3	5.2	5.2	3.1
					7.6	10.0	16.3	19.3	5.2	5.2	3.1
SSGA Eq Weighted Passive S&P 500 Equal Weighted	520,226,575 4.2%	4/1/2012	1.5	19.9	-	-	-	27.3	6.7	6.7	4.0
				-	10.4	13.8	17.7	27.4	6.8	6.8	4.0
Frontier Capital Russell Mid Cap Growth	443,216,397 3.6%	6/1/2002	11.3	10.1	12.1	13.0	17.3	26.3	9.8	9.8	4.9
				9.1	10.2	13.9	17.7	27.5	9.3	9.3	4.9
Wellington Management Russell Mid Cap Growth	401,519,032 3.2%	9/1/1998	15.1	10.5	10.6	12.2	15.3	36.8	12.2	12.2	6.1
				8.7	10.2	13.9	17.7	27.5	9.3	9.3	4.9
AJO Partners Russell MidCap	442,056,326 3.6%	8/1/1998	15.2	10.8	11.0	14.0	19.5	29.5	7.9	7.9	4.2
				9.0	10.8	13.0	17.5	27.9	7.7	7.7	4.6
Hotchkis & Wiley Mid Cap Russell MidCap Value	441,309,936 3.6%	8/1/2002	11.2	14.5	13.3	22.0	24.4	42.8	8.7	8.7	4.0
				11.2	10.9	11.9	17.3	27.8	5.9	5.9	4.2
Shapiro Capital Management Russell 2000	561,517,580 4.5%	2/1/1998	15.7	10.4	13.3	15.3	18.2	32.4	10.3	10.3	6.0
				8.4	9.3	9.1	16.6	27.0	7.6	7.6	5.8
Geneva Capital Russell 2000 Growth	182,333,240 1.5%	6/1/2013	0.3	14.5	-	-	-	-	14.4	14.4	7.6
				-	-	-	-	-	7.6	7.6	5.8
Wasatch Advisors Russell 2000 Growth	173,566,286 1.4%	6/1/2013	0.3	7.5	-	-	-	-	10.0	10.0	6.0
				-	-	-	-	-	7.6	7.6	5.8
Cove Street Capital Russell 2000 Value	97,752,834 0.8%	6/1/2013	0.3	7.9	-	-	-	-	9.5	9.5	6.2
				-	-	-	-	-	7.6	7.6	5.8
Frontier Capital Russell 2000 Value	139,342,978 1.1%	6/1/2013	0.3	4.2	-	-	-	-	8.2	8.2	5.5
				-	-	-	-	-	7.6	7.6	5.8
Neumeier Poma Russell 2000 Value	101,601,791 0.8%	6/1/2013	0.3	12.7	-	-	-	-	9.2	9.2	4.6
				-	-	-	-	-	7.6	7.6	5.8
Causeway Capital MSCI ACWI Ex US	509,329,351 4.1%	5/1/2003	10.4	11.1	9.8	9.3	10.6	22.2	11.3	11.3	7.4
				10.2	8.8	6.3	6.0	16.5	10.1	10.1	7.0
International Transition Account MSCI ACWI Ex US	50,690,090 0.4%	-	-	-	-	-	-	-	-	-	-
				-	8.8	6.3	6.0	16.5	10.1	10.1	7.0
Northern Trust Passive MSCI EAFE	401,811,001 3.2%	9/1/2013	0.1	0.5	-	-	-	-	-	-	0.5
				7.4	8.5	6.9	9.0	24.3	11.6	11.6	7.4
Thornburg MSCI ACWI Ex US	471,730,980 3.8%	12/1/2005	7.8	7.3	-	7.8	7.6	18.3	10.3	10.3	6.7
				5.1	8.8	6.3	6.0	16.5	10.1	10.1	7.0
ARI Small Cap International MSCI EAFE Small Cap	194,171,402 1.6%	12/1/2011	1.8	21.8	-	-	-	25.0	11.9	11.9	7.5
				17.1	10.3	11.4	11.3	29.4	15.5	15.5	9.0
Epoch Small Cap International MSCI EAFE Small Cap	192,736,339 1.6%	12/1/2011	1.8	20.4	-	-	-	26.5	13.8	13.8	6.8
				17.1	10.3	11.4	11.3	29.4	15.5	15.5	9.0
Wasatch Small Cap International MSCI EAFE Small Cap	195,732,003 1.6%	12/1/2011	1.8	32.3	-	-	-	33.4	13.4	13.4	7.4
				17.1	10.3	11.4	11.3	29.4	15.5	15.5	9.0
Wellington Small Cap International MSCI EAFE Small Cap	196,937,704 1.6%	12/1/2011	1.8	29.5	-	-	-	36.9	15.3	15.3	8.9
				17.1	10.3	11.4	11.3	29.4	15.5	15.5	9.0

# Fixed Income Portfolios Summary

As of September 30, 2013



	Market Value	Inception Date	Time Since Inception (Years)	Since Inception	10 Years	5 Years	3 Years	1 Year	Fiscal YTD	Last Quarter	Last Month
Loomis Sayles	<b>567,272,262</b>	<b>8/1/1999</b>	<b>14.2</b>	7.1	7.4	10.7	5.9	-0.1	0.9	0.9	1.5
<i>Barclays Aggregate</i>	<b>4.6%</b>			5.7	4.6	5.4	2.9	-1.7	0.6	0.6	0.9
Lord Abbett	<b>570,232,307</b>	<b>11/1/2004</b>	<b>8.9</b>	6.1	-	8.0	4.8	0.0	0.7	0.7	0.9
<i>Barclays Aggregate</i>	<b>4.6%</b>			4.6	-	5.4	2.9	-1.7	0.6	0.6	0.9
Mackay Shields	<b>566,728,787</b>	<b>11/1/2004</b>	<b>8.9</b>	6.4	-	8.3	5.9	1.3	0.7	0.7	0.4
<i>Barclays Aggregate</i>	<b>4.6%</b>			4.6	-	5.4	2.9	-1.7	0.6	0.6	0.9
Hoisington	<b>255,016,976</b>	<b>11/1/2004</b>	<b>8.9</b>	7.3	-	7.1	4.0	-14.1	-3.3	-3.3	0.0
<i>Barclays Aggregate</i>	<b>2.1%</b>			4.6	-	5.4	2.9	-1.7	0.6	0.6	0.9
Loomis Sayles High Yield	<b>237,123,697</b>	<b>2/1/2009</b>	<b>4.7</b>	16.4	-	-	8.0	7.3	1.9	1.9	2.3
<i>Merrill Lynch High Yield II</i>	<b>1.9%</b>			17.9	-	-	8.9	7.1	2.3	2.3	1.0
Lord Abbett High Yield	<b>236,541,685</b>	<b>2/1/2009</b>	<b>4.7</b>	17.3	-	-	10.5	9.6	2.7	2.7	1.3
<i>Merrill Lynch High Yield II</i>	<b>1.9%</b>			17.9	-	-	8.9	7.1	2.3	2.3	1.0
Mackay Shields High Yield	<b>239,662,538</b>	<b>2/1/2009</b>	<b>4.7</b>	15.3	-	-	9.2	6.4	2.0	2.0	0.9
<i>Merrill Lynch High Yield II</i>	<b>1.9%</b>			17.9	-	-	8.9	7.1	2.3	2.3	1.0

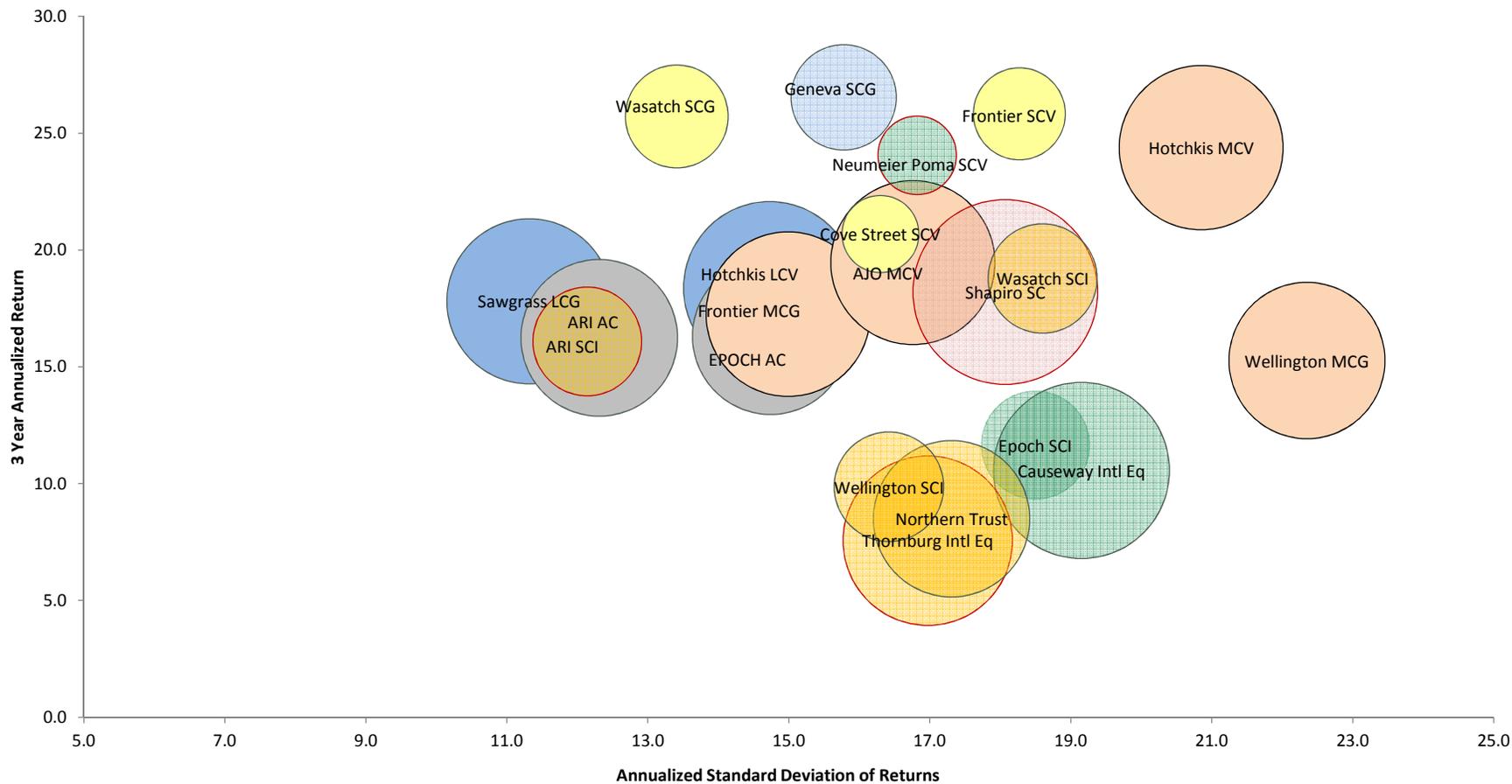
# Non-Traditional Portfolios Summary

As of September 30, 2013



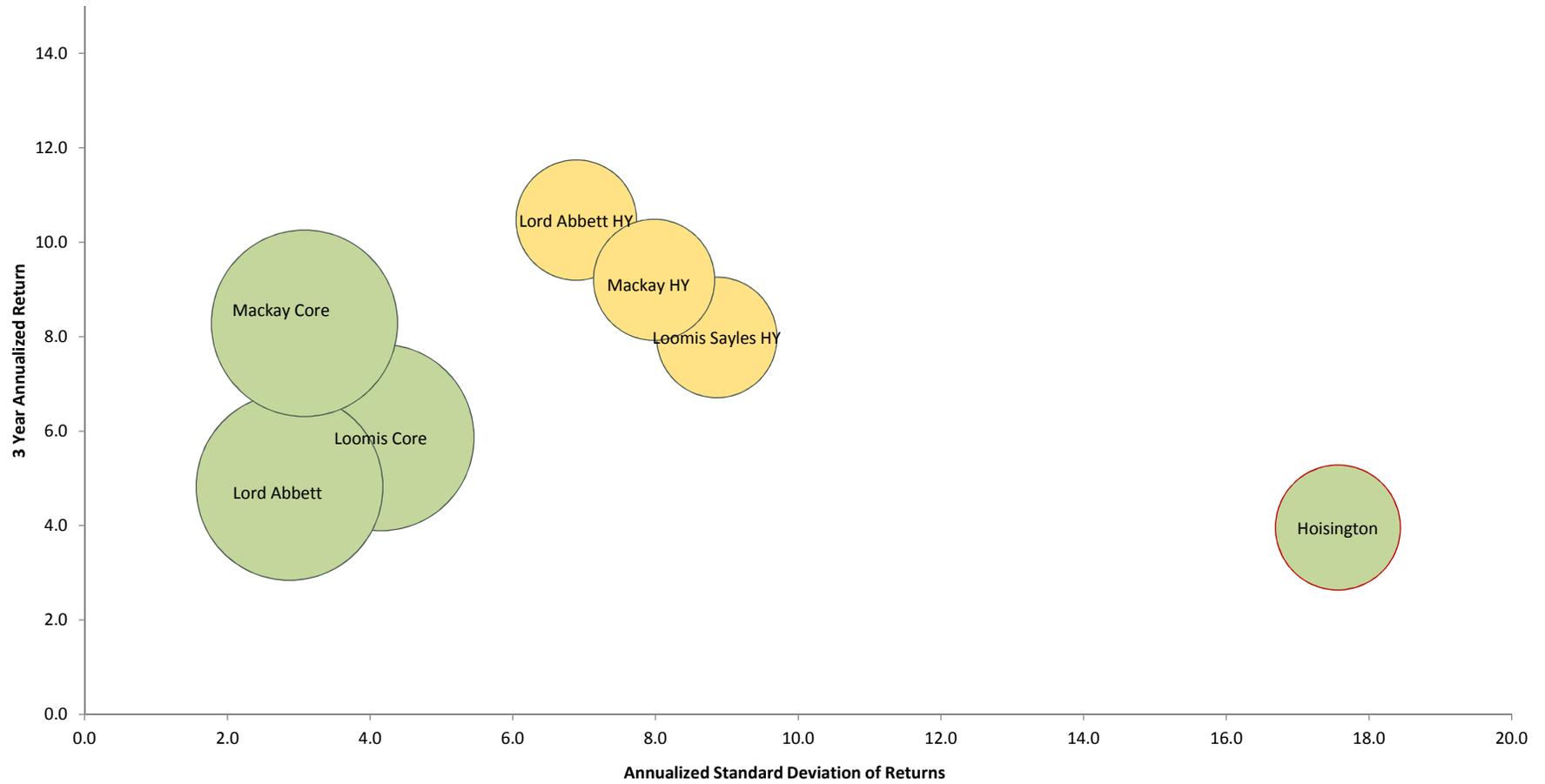
	Market Value	Inception Date	Time Since Inception (Years)	Since Inception	10 Years	5 Years	3 Years	1 Year	Fiscal YTD	Last Quarter	Last Month
Chickasaw Capital MLP	216,966,202	2/28/2011	2.6	24.6	-	-	-	32.5	1.7	1.7	3.5
<i>Alerian MLP Index</i>	1.7%			13.5	-	-	-	17.0	-0.7	-0.7	2.3
Cushing MLP Management	190,342,661	2/28/2011	2.6	18.0	-	-	-	29.6	1.5	1.5	2.2
<i>Alerian MLP Index</i>	1.5%			13.5	-	-	-	17.0	-0.7	-0.7	2.3
FAMCO MLP	343,271,761	2/28/2011	2.6	13.5	-	-	-	19.3	-0.9	-0.9	1.0
<i>Alerian MLP Index</i>	2.8%			13.5	-	-	-	17.0	-0.7	-0.7	2.3
Legacy Private Equity Portfolio	72,785,176	10/1/2008	5.0	-	-	-	-	-	-	-	-
Franklin Park Private Equity	188,078,594	4/1/2010	3.5	-	-	-	-	-	-	-	-
	2.1%										
AEW Real Estate	176,850,639	5/1/2011	2.4	-	-	-	-	-	-	-	-
<i>NCREIF - OEDCE</i>	1.4%			-	-	-	-	-	-	-	-
Heitman Real Estate	185,778,492	5/1/2011	2.4	-	-	-	-	-	-	-	-
<i>NCREIF - OEDCE</i>	1.5%			-	-	-	-	-	-	-	-
L&B Real Estate	167,448,015	4/1/2011	2.5	-	-	-	-	-	-	-	-
<i>NCREIF - OEDCE</i>	1.3%			-	-	-	-	-	-	-	-
PIMCO Distressed Mortgage II	36,951	12/1/2008	4.8	-	-	-	-	-	-	-	-
<i>Barclays Aggregate</i>	0.0%			-	-	-	-	-	-	-	-
PIMCO BRAVO	138,422,405	3/31/2011	2.5	-	-	-	-	-	-	-	-
<i>Barclays Aggregate</i>	1.1%			-	-	-	-	-	-	-	-
PIMCO BRAVO II	7,391,252	3/31/2013	0.5	-	-	-	-	-	-	-	-
<i>Barclays Aggregate</i>	0.1%			-	-	-	-	-	-	-	-

# Three Year Risk/Return Review - Equity Portfolios



<sup>1</sup>Actual OTRS results used when available, composite when necessary.

# Three Year Risk/Return Review - Fixed Income Portfolios



<sup>1</sup>Actual OTRS results used when available, composite when necessary.

DRAFT

**TEACHERS' RETIREMENT SYSTEM OF OKLAHOMA**  
ANNUAL ACTUARIAL VALUATION  
AS OF JUNE 30, 2013

October 23, 2013

Board of Trustees  
Teachers' Retirement System of Oklahoma  
Oliver Hodge Education Building  
2500 N. Lincoln Boulevard, 5<sup>th</sup> Floor  
Oklahoma City, Oklahoma 73105

Dear Members of the Board:

**SUBJECT: ACTUARIAL VALUATION AS OF JUNE 30, 2013**

We certify that the information contained in this report is accurate and fairly presents the actuarial position of the Teachers' Retirement System of Oklahoma (the System) as of June 30, 2013. This report was prepared at the request of the Board and is intended for use by the System's staff and those designated or approved by the Board. This report may be provided to parties other than the staff only in its entirety and only with the permission of the Board.

All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, the results presented also comply with the requirements of the Oklahoma statutes and, where applicable, the Internal Revenue Code and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries. They are Enrolled Actuaries and Members of the American Academy of Actuaries, and they are experienced in performing valuations for large public retirement systems. They meet all of the Qualification Standards of the American Academy of Actuaries.

#### **ACTUARIAL VALUATION**

The primary purposes of the actuarial valuation report are to determine the adequacy of the current State and employer contribution rates, to describe the current financial condition of the System, and to analyze changes in the System's condition. In addition, the report provides information required by the System in connection with Governmental Accounting Standards Board Statement No. 25 (GASB 25), and it provides various summaries of the data.

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

#### **FINANCING OBJECTIVES**

The member, employer, State, and "grant matching" contribution rates are established by law. Members contribute 7.00% of covered compensation. The contribution rate for employers covered by the Education Employees Service Incentive Plan (EESIP) is 9.50%. For employers not covered by the EESIP—the comprehensive and regional four-year universities—the contribution rate is 8.55%. No employer contribution rate changes are currently scheduled.

There is also an additional contribution made by the comprehensive universities, the Initial Funding Surcharge, which is equal to 2.50% of the payroll for those employees who elect to join the Alternate Retirement Plan in lieu of joining the System. This contribution will continue through FY 2034 or until June 30 of the year in which the unfunded actuarial accrued liability of the participating institutions is reduced to zero, if earlier. In addition, the State of Oklahoma contributes a percentage of its revenues from sales taxes, use taxes, corporate income taxes, individual income taxes, and lottery proceeds to the System. This percentage is currently 5.00%, and no changes are scheduled in this rate. Additionally, the System receives “grant matching” contributions from employers for positions whose funding comes from federal sources or certain grants. The matching contribution rate for FY 2013 was 8.00% and it will increase to 8.25% for FY 2014. This matching rate is intended to approximate the contribution from the State of Oklahoma measured as a percentage of “State” payroll, i.e., payroll excluding that paid from federal or certain grant sources.

The State’s contribution for FY 2014, based on information presented to the State’s Equalization Board, is projected to be \$317 million. Therefore, we project that the State’s contribution plus the matching contribution and the Initial Funding Surcharge will be equivalent to a contribution rate of approximately 8.5% of covered payroll for the fiscal year ending June 30, 2014. Since these three contribution sources are unrelated to the covered payroll of the System, our outlook for the future contribution level from these sources also incorporates the past four years of actual contributions, resulting in a five-year average of 7.7%.

The employer payroll contribution—9.50% for most employers and 8.55% for the comprehensive and regional universities—is projected to average about 9.3% of payroll, so on a combined basis, we expect that the contributing entities will contribute 17.0% of covered payroll (7.7% + 9.3% = 17.0%) in the future.

The State, local and matching contributions, when combined with the contributions made by members, are intended to pay for the normal cost and to amortize the unfunded actuarial accrued liability of the System.

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

The unfunded actuarial accrued liability (UAAL) as of June 30, 2012 was \$8.398 billion, and it decreased to \$8.112 billion this year. As a result, the System’s funded ratio—actuarial value of assets divided by the actuarial accrued liability—increased from 54.8% to 57.2% as of June 30, 2013. This increase was primarily due to a liability gain resulting from member payroll increasing less than expected. This funded ratio increases to 62.2% measured on the market value of assets as of June 30, 2013.

The period required to completely amortize the UAAL based upon the contribution schedule is called “the funding period.” Based upon the current statutory contribution schedule, the funding period decreased significantly from 22 years as of June 30, 2012 to 17 years in the current valuation. The decrease is due to the liability gain described above as well as a 17.3% return on the market value of assets as described in Section E. Based upon the current contribution and benefit provisions, assuming no actuarial gains or losses in the future, and assuming the market

value of assets returns 8%, the UAAL is expected to trend steadily down to zero over the next 17 years.

#### **DEFERRED ASSET LOSSES/GAINS**

The UAAL and the funded ratio cited above are based on actuarial calculations that make use of the actuarial value of assets, not the market value. The actuarial value of assets is based upon the market value, but asset gains and losses – earnings greater or less than the 8.00% annual investment return assumption – are recognized at a rate of 20% per year for five years. The current actuarial value of \$10.861 billion is \$949 million lower than the market value of \$11.810 billion, and the actuarial value of assets is approximately 92% of the market value. As previously stated, the funded ratio determined using the market value of assets rather than the actuarial value is 62.2%.

#### **BENEFIT PROVISIONS**

Our actuarial valuation as of June 30, 2013 reflects the benefit and contribution provisions set forth in current statutes. There were no bills enacted during the 2013 State of Oklahoma legislative session that had an actuarial impact upon the System.

A summary of all major plan provisions contained within this valuation is included in Appendix I of this report.

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

Assumptions are set by the Board of Trustees, taking into account the recommendations of the System's actuary. The System has an experience investigation study performed every fifth year. The actuarial assumptions used in this valuation are based upon the 2009 Experience Investigation Study Report, dated September 15, 2010, measuring the experience investigation period FY2005 – FY2009. The current actuarial assumptions were adopted by the Board in September 2010 and first utilized in the June 30, 2010 actuarial valuation report. The retirement assumption was modified after the experience investigation study to incorporate the change in retirement eligibility for members hired on or after November 1, 2011.

We believe the assumptions are internally consistent and are reasonable, based on the actual experience of the System.

The results of the actuarial valuation are dependent upon 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.

A summary of the actuarial methods and assumptions incorporated into this valuation is included in Appendix III of this report.

**DATA**

Member data for retired, active, and inactive participants was supplied as of June 30, 2013 by the System's staff. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data. Asset information as of June 30, 2013 was supplied by the auditors and by the System's staff. GRS is not responsible for the accuracy or completeness of the information provided to us.

We wish to sincerely thank the System's entire staff and the System's financial auditors for their assistance in the preparation of our report.

Respectfully submitted,  
**Gabriel, Roeder, Smith & Company**

Mark R. Randall, FCA, MAAA, EA  
Executive Vice President

R. Ryan Falls, FSA, EA, MAAA  
Senior Consultant

Brad Stewart, ASA, EA, MAAA  
Consultant

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**SECTION A**  
EXECUTIVE SUMMARY

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**Executive Summary**

Item	2013	2012
<b>Membership</b>		
• Number of		
- Active members	89,333	87,778
- Retirees and beneficiaries	54,581	52,716
- Inactive, vested	9,120	8,687
- Inactive, nonvested	8,926	8,564
- Total	161,960	157,745
• Payroll	\$ 3,933 million	\$ 3,925 million
<b>Statutory contribution rates</b>	<b>FY 2014</b>	<b>FY 2013</b>
• Employers in EESIP	9.50%	9.50%
• Regional universities	8.55%	8.55%
• Federal/grant salaries	8.25%	8.00%
• Members	7.00%	7.00%
• State (% of tax revenues)	5.00%	5.00%
<b>Assets</b>		
• Market value	\$ 11,810 million	\$ 10,195 million
• Actuarial value	\$ 10,861 million	\$ 10,190 million
• Return on market value	17.3%	1.3%
• Return on actuarial value	7.9%	3.3%
• State/local/federal contributions	\$ 701 million	\$ 682 million
• External cash flow %	-1.2%	-1.0%
• Ratio of actuarial to market value	92.0%	100.0%
<b>Actuarial Information</b>		
• Normal cost %	9.81%	9.81%
• Unfunded actuarial accrued liability (UAAL)	\$ 8,112 million	\$ 8,398 million
• Funded ratio	57.2%	54.8%
• Funding period (years)	17	22
<b>GASB 25 ARC (30 year, level %)</b>	<b>FY 2014</b>	<b>FY 2013</b>
• Dollar amount	\$602,936,966	\$619,805,640
• Percent of pay	14.62%	15.06%
<b>Gains/(losses)</b>		
• Asset experience	(\$6) million	(\$468) million
• Liability experience	353 million	(180) million
• Benefit changes	0 million	0 million
• Legislative Changes	0 million	(130) million
• Assumption Changes	0 million	0 million
• Total	\$ 346 million	(\$778) million

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**SECTION B**  
INTRODUCTION

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## INTRODUCTION

The results of the June 30, 2013 actuarial valuation of the Teachers' Retirement System of Oklahoma are presented in this report.

The purposes of any actuarial valuation report are to describe the financial condition of the System, to assess the adequacy of the current contributions, and to analyze changes in the funding requirements. In addition, this report presents information required by the System in connection with Governmental Accounting Standards Board Statement No. 25 (GASB 25).

Section C of our report discusses the determination of the current funding period. Section D analyzes the changes in the unfunded actuarial accrued liability (UAAL). This section also discusses the gains and losses resulting from differences between actual experience and the actuarial assumptions.

Section E of our report details the System's assets as they relate to our actuarial valuation, while Section F discusses the changes in the benefit and contribution provisions since the previous valuation, if any. Section G discusses liabilities calculated for GASB 25 purposes. Sections H and I discuss the actuarial assumptions and methods used and the membership data.

All of the Tables referenced by the other sections appear in Section J of this report.

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**SECTION C**  
FUNDED STATUS

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## 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 decreased by \$286 million, from \$8.398 billion to \$8.112 billion as of June 30, 2013. The funded ratio – the ratio of the actuarial value of assets to the actuarial accrued liability – increased from 54.8% to 57.2% as of June 30, 2013. The increase in the funded status is due mainly to a liability gain resulting from member payroll increasing less than expected. A detailed summary of the changes in UAAL is included in Table 11a.

The funding period – the number of years that would be required under the current contribution schedule to amortize the UAAL – decreased from 22 years to 17 years.

We expect that the System will receive contributions equivalent to 17.8% of covered payroll for FY 2014 from the employers and the State. Since the contributions from the State, the matching contributions, and the Initial Funding Surcharge are unrelated to the covered payroll of the System, our outlook for the future contribution level from these sources also incorporates the past four years of actual contributions. As a result, our outlook for the future contribution level is 17.0% of covered payroll.

Projections show that it will take about ten years for the plan to reach 80% funded (based upon the current contribution and benefit provisions, assuming no actuarial gains or losses in the future, and assuming the market value of assets returns 8%).

As previously mentioned, 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 percentage of payroll over 30 years. This amount is 14.62% of projected active member payroll as shown in Table 1, compared to 15.06% last year. As of June 30, 2013, our projections show that the ARC is expected to trend downward towards the annual employer normal cost rate of 2.81% over the next 17 years at which time the UAAL is projected to be zero.

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**SECTION D**  
ANALYSIS OF CHANGES

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## ANALYSIS OF CHANGES

### *Unfunded Actuarial Accrued Liability (UAAL)*

Table 11a of our report shows an analysis of the change in the UAAL. The UAAL, which was \$8.398 billion last year, has decreased to \$8.112 billion this year. The decrease in the UAAL was due to a liability gain resulting from member payroll increasing less than expected.

### *Funding Period*

As noted in Table 1 under Section K of our report, the funding period (the period required to amortize the UAAL) decreased from 22 years to 17 years. This decrease is due primarily due to the liability gain described above and a return on the market value of assets of 17.3%.

The funding period shown in Table 1 of our report, and the projection of the UAAL shown in Table 12, are based upon a deterministic projection that phases in 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, and (e) employer and State contributions will remain at approximately 17.0% of payroll each year.

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**SECTION E**  
SYSTEM ASSETS

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## SYSTEM ASSETS

This report contains several tables that summarize key information with respect to the System's assets. Assets are reported at market value as required under GASB 25.

The total market value of assets increased from \$10.195 billion to \$11.810 billion as of June 30, 2013. This excludes the value of the Teachers' Deposit Fund. (The Teachers' Deposit Fund is the fund that holds the 403(b) plan assets.)

Table 6 reconciles the changes in the fund during the year. Employer contributions decreased slightly from \$376.6 million to \$373.5 million. The State's contribution increased from \$281.8 million to \$300.5 million, reflecting increased State tax revenues. Active member contributions decreased slightly from \$291.4 million to \$290.0 million, including State credits for contributions.

Table 7 shows the development of the actuarial value of assets. Rather than use the System's market value of assets, the valuation reflects a smoothed asset value. This actuarial value is calculated using a five-year average of the difference between expected and actual earnings on the market value and is meant to dampen the volatility in the ARC resulting from the year-to-year changes in the market returns. The actuarial value is about 92% of market value with \$949 million in deferred asset gains that have yet to be recognized.

Table 8a provides a calculation of the estimated investment return for the year. As shown, the approximate investment return for FY 2013 is 17.3% when measured on market value and 7.9% when measured on actuarial value. Table 8b shows a history of return rates since FYE 1994. The System's ten (10) year and twenty (20) year average annual market returns, net of expenses, are 8.4% and 8.7%, respectively.

Table 9 shows an external cash flow history. External cash flow is a negative 1.2% of assets this year. Table 10a shows the development of the small asset loss of \$6.4 million on an actuarial value of assets basis. Although the return on market value of assets was 17.3%, five-year "smoothing" and the recognition of the final 20% of the extraordinary asset loss (a negative 16.2%) for the year ending June 30, 2009 resulted in a slight loss on an actuarial value basis.

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**SECTION F**

**BENEFIT AND CONTRIBUTION PROVISIONS**

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## **BENEFIT AND CONTRIBUTION PROVISIONS**

Appendix I of our report provides a summary of benefit and contribution provisions of the System, while Appendix II is a historical summary of legislative changes. There were no bills passed in the 2013 legislative session that had an actuarial impact on the System.

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**SECTION G**

**GASB 25 DISCLOSURES**

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## GASB 25 DISCLOSURES

This report includes three tables—Tables 4a, 4b and 4c—showing information required to be reported under GASB 25.

Table 4a shows a history of funding progress. The funded ratio increased from 54.8% as of June 30, 2012 to 57.2% as of June 30, 2013. The increase in the funded ratio as of June 30, 2013 was primarily due to a liability gain resulting from member payroll increasing less than expected.

Table 4b shows the Annual Required Contribution (ARC) as computed under GASB 25, and it shows what percent of this amount was actually received. The ARC is computed as the normal cost plus a 30-year level percent-of-payroll amortization of the UAAL. The 30-year period is re-determined each year (i.e., this is an “open amortization period”). The actual contributions that are compared with the ARC were the contributions received from employers, plus grant matching funds, plus the State’s contribution. For FY 2013, the System received 113.1% of its ARC compared with 115.9% for FY 2012. We expect the actual future contributions, made per the statutes, will continue to exceed the ARC, and this will result in the UAAL being amortized in less than 30 years.

In interpreting these schedules, keep in mind that a number of changes that impact comparability have occurred:

- The determination of the ARC was changed from a 40-year level-dollar amortization of the UAAL to a 30-year level-percent of payroll quantity, effective for FY 2006.
- Plan benefit changes were made in most years. See Appendix II of our report.
- Assumptions were changed in 2000, 2005, and 2010 following experience studies.
- Other assumption changes were made in 2001 and 2006 in connection with the EESIP.
- The assumption with regard to future ad hoc COLAs has been changed several times. No assumption was made prior to 2001. A 1% assumption was used in 2001 and 2002. No assumption was used in 2003, and a 1% assumption was used from 2004 to 2007. This assumption was increased to 2% with the June 30, 2008 actuarial valuation. Due to the passage of HB 2132, no future COLAs are assumed beginning with the June 30, 2011 actuarial valuation.

Table 4c shows additional information that must be included in the financial report.

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**SECTION H**

ACTUARIAL ASSUMPTIONS AND METHODS

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## ACTUARIAL ASSUMPTIONS AND METHODS

Appendix III of our report summarizes the actuarial assumptions used to determine the System's liabilities and the actuarial methods used to determine the normal cost, UAAL and funding period. The current actuarial assumptions were first used for the June 30, 2010 valuation, when the Board adopted changes recommended by the actuary, based on a review of the System's experience for the five-year period ending June 30, 2009. The retirement assumption was modified after the experience investigation study to incorporate the change in retirement eligibility for members hired on or after November 1, 2011.

No changes were made to either the actuarial assumptions or methods since the prior actuarial valuation.

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**SECTION I**  
MEMBERSHIP DATA

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## MEMBERSHIP DATA

Data on all members of the System, whether active, receiving a benefit, or entitled to a future benefit, was supplied by the System.

We did not verify the correctness of the data at the source, but we did perform various tests to ensure the internal consistency of the data and its overall reasonableness. In our review of this data we encountered a small number of records with missing or inconsistent information. We made adjustments to these records, but this did not materially impact the results shown.

Item V of Appendix III of our report provides more detail about the processing of membership data for valuation purposes.

Tables 5a and 5b show some key statistics for the various groups included and Table 14 shows the distribution of active members by age and service.

There was a 1.8% increase in the number of active members since the previous valuation and a 0.2% increase in the payroll for active members based on the data provided.

Membership has grown by an average of 0.1% per year over the last five years and 0.7% per year over the last ten years. Payroll for covered members (without regard to the pay caps) has grown an average of 1.0% over the last five years, and it has grown at an average of 2.6% over the last ten years.

Over the last decade, the active group has slowly gotten older. As shown in Table 5b, the average active member is now 46.1 years old and the average age for the active group has increased 0.8 years during the last ten years. During the same period, the average tenure of members has decreased 0.1 years.

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**SECTION J**

TABLES

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## TABLES

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**Development of Employer Cost**

	<u>June 30, 2013</u>	<u>June 30, 2012</u>
1. Payroll		
a. Supplied by System	\$ 3,933,056,084	\$ 3,924,843,696
b. Adjusted for one year's pay increase	4,124,997,995	4,115,426,522
2. Present value of future pay	\$ 33,933,352,318	\$ 33,812,561,201
3. Normal cost rate		
a. Total normal cost rate	9.81%	9.81%
b. Less: member rate	-7.00%	-7.00%
c. Employer normal cost rate	<u>2.81%</u>	<u>2.81%</u>
4. Actuarial accrued liability for active members		
a. Present value of future benefits for active members	\$ 11,517,150,071	\$ 11,647,055,394
b. Less: present value of future employer normal costs (Item 3c * Item 2)	(953,527,200)	(950,132,970)
c. Less: present value of future member contributions	<u>(2,375,334,662)</u>	<u>(2,366,879,284)</u>
d. Actuarial accrued liability	\$ 8,188,288,209	\$ 8,330,043,140
5. Total actuarial accrued liability for:		
a. Retirees and beneficiaries	\$ 10,315,563,009	\$ 9,814,225,280
b. Inactive members	469,315,521	443,774,018
c. Active members (Item 4d)	<u>8,188,288,209</u>	<u>8,330,043,140</u>
d. Total	\$ 18,973,166,739	\$ 18,588,042,438
6. Actuarial value of assets	\$ 10,861,057,537	\$ 10,190,480,780
7. Unfunded actuarial accrued liability (UAAL) (Item 5d - Item 6)	\$ 8,112,109,202	\$ 8,397,561,658
8. Funding period based on statutory contribution rates (years)	17	22
9. GASB 25 ARC		
a. Employer normal cost (Item 1b * 3c)	\$ 115,912,444	\$ 115,643,485
b. Level % 30-year amortization of UAAL	<u>487,024,522</u>	<u>504,162,155</u>
c. Total	\$ 602,936,966	\$ 619,805,640
d. Contributions as percentage of payroll	14.62%	15.06%

**Actuarial Present Value of Future Benefits**

	June 30, 2013	June 30, 2012
1. Active members		
a. Service retirement benefits	\$ 10,212,242,279	\$ 10,349,435,032
b. Deferred termination benefits	485,340,354	478,088,259
c. Refunds	25,678,256	24,323,023
d. Death benefits	157,459,622	156,895,297
e. Disability retirement benefits	269,029,885	270,144,707
f. Supplemental medical insurance	335,743,469	336,903,102
g. \$5,000 post-retirement death benefit	31,656,206	31,265,974
h. Total	<u>\$ 11,517,150,071</u>	<u>\$ 11,647,055,394</u>
2. Retired members		
a. Service retirements	\$ 9,206,886,891	\$ 8,746,702,421
b. Disability retirements	156,497,598	151,392,878
c. Beneficiaries	329,518,806	311,261,043
d. Supplemental medical insurance	534,255,643	519,955,322
e. \$5,000 post-retirement death benefit	88,404,071	84,913,616
f. Total	<u>\$ 10,315,563,009</u>	<u>\$ 9,814,225,280</u>
3. Inactive members		
a. Vested terminations	\$ 398,875,341	\$ 377,821,804
b. Nonvested terminations	36,823,556	32,341,977
c. Suspense fund	33,616,624	33,610,237
d. Total	<u>\$ 469,315,521</u>	<u>\$ 443,774,018</u>
4. Total actuarial present value of future benefits	<u>\$ 22,302,028,601</u>	<u>\$ 21,905,054,692</u>

**Analysis of Normal Cost**

	<u>June 30, 2013</u>	<u>June 30, 2012</u>
1. Gross normal cost rate		
a. Retirement benefits	7.08%	7.08%
b. Deferred termination benefits	1.49%	1.49%
c. Refunds	0.63%	0.63%
d. Supplemental medical insurance	0.20%	0.20%
e. \$5,000 Post-retirement death benefits	0.04%	0.04%
f. Death Benefits	0.07%	0.07%
g. Disability retirement benefits	<u>0.30%</u>	<u>0.30%</u>
h. Total	9.81%	9.81%
2. Less: member rate	<u>7.00%</u>	<u>7.00%</u>
3. Employer normal cost rate	2.81%	2.81%

**Schedule of Funding Progress**  
**(As required by GASB #25)**

Valuation Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL) (3) - (2)	Funded Ratio (2)/(3)	Annual Covered Payroll	UAAL as % of Payroll (4)/(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
June 30, 1999	\$4,708.0	\$9,458.6	\$4,750.5	49.8%	\$2,648.4	179.4%
June 30, 2000	\$5,373.5	\$10,009.2	\$4,635.7	53.7%	\$2,738.3	169.3%
June 30, 2001	\$5,959.0	\$11,591.1	\$5,632.1	51.4%	\$2,990.5	188.3%
June 30, 2002	\$6,310.9	\$12,275.9	\$5,965.0	51.4%	\$3,047.1	195.8%
June 30, 2003	\$6,436.9	\$11,925.2	\$5,488.3	54.0%	\$3,045.7	180.2%
June 30, 2004	\$6,660.9	\$14,080.1	\$7,419.2	47.3%	\$3,030.7	244.8%
June 30, 2005	\$6,952.7	\$14,052.4	\$7,099.7	49.5%	\$3,175.2	223.6%
June 30, 2006	\$7,470.4	\$15,143.4	\$7,672.9	49.3%	\$3,354.9	228.7%
June 30, 2007	\$8,421.9	\$16,024.4	\$7,602.5	52.6%	\$3,598.9	211.2%
June 30, 2008	\$9,256.8	\$18,346.9	\$9,090.1	50.5%	\$3,751.4	242.3%
June 30, 2009	\$9,439.0	\$18,950.9	\$9,512.0	49.8%	\$3,807.9	249.8%
June 30, 2010	\$9,566.7	\$19,980.6	\$10,414.0	47.9%	\$3,854.8	270.2%
June 30, 2011	\$9,960.6	\$17,560.8	\$7,600.2	56.7%	\$3,773.3	201.4%
June 30, 2012	\$10,190.5	\$18,588.0	\$8,397.6	54.8%	\$3,924.8	214.0%
June 30, 2013	\$10,861.1	\$18,973.2	\$8,112.1	57.2%	\$3,933.1	206.3%

Note : Dollar amounts in millions

**Schedule of Employer Contributions**  
**(As required by GASB #25)**

Year Ending June 30,	Annual Required Contribution	Percentage Contributed
1999	\$456,864,002	53.5%
2000	\$455,265,033	60.6%
2001	\$451,463,258	72.7%
2002	\$556,201,571	65.6%
2003	\$585,168,488	61.9%
2004	\$534,811,845	70.2%
2005	\$722,095,783	56.2%
2006	\$535,228,038	85.8%
2007	\$575,745,142	93.1%
2008	\$590,495,652	101.1%
2009	\$714,367,558	86.6%
2010	\$742,286,289	83.6%
2011	\$822,419,996	77.6%
2012	\$588,287,377	115.9%
2013	\$619,805,640	113.1%

**Notes to Required Supplementary Information  
 (as required by GASB #25)**

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	June 30, 2013
Actuarial cost method	Entry Age Normal
Amortization method	Level percent of payroll, open period
Remaining amortization period	30 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return *	8.00%
Projected salary increase *	4.00% to 12.00%
* Includes inflation at:	3.00%
Cost of living adjustment	0.00%

**Membership Data**

	June 30, 2013 (1)	June 30, 2012 (2)
1. Active members		
a. Number	89,333	87,778
b. Total payroll supplied by System	\$ 3,933,056,084	\$ 3,924,843,696
c. Average salary	\$ 44,027	\$ 44,713
d. Average age	46.1	46.2
e. Average service	11.4	11.6
2. Vested inactive members		
a. Number	9,120	8,687
b. Total annual deferred benefits <sup>1</sup>	\$ 70,996,529	\$ 66,828,301
c. Average annual deferred benefit	\$ 7,785	\$ 7,693
3. Nonvested inactive members		
a. Number	8,926	8,564
b. Member contributions with interest due	\$ 36,823,556	\$ 32,341,977
c. Average refund due	\$ 4,125	\$ 3,777
4. Service retirees		
a. Number	50,318 <sup>2</sup>	48,613
b. Total annual benefits <sup>1</sup>	\$ 981,884,492	\$ 931,329,125
c. Average annual benefit	\$ 19,514	\$ 19,158
5. Disabled retirees		
a. Number	1,630	1,603
b. Total annual benefits <sup>1</sup>	\$ 18,526,141	\$ 18,055,036
c. Average annual benefit	\$ 11,366	\$ 11,263
6. Beneficiaries and spouses		
a. Number	2,633	2,500
b. Total annual benefits <sup>1</sup>	\$ 41,905,283	\$ 39,282,025
c. Average annual benefit	\$ 15,915	\$ 15,713

<sup>1</sup> Benefit amounts exclude the supplemental medical insurance payment.

<sup>2</sup> Includes nine special retirees with an average annual benefit of 2,339.

**Historical Summary of Active Member Data**

Valuation as of June 30, (1)	Active Members		Covered Payroll		Average Salary		Average Age (8)	Average Service (9)
	Number (2)	Percent Increase (3)	Amount in \$ Millions (4)	Percent Increase (5)	\$ Amount (6)	Percent Increase (7)		
1994	76,280	0.9%	\$2,190	3.2%	\$28,704	2.3%	43.6	10.8
1995	79,044	3.6%	2,336	6.7%	29,555	3.0%	43.6	10.7
1996	78,942	-0.1%	2,375	1.7%	30,091	1.8%	44.0	11.1
1997	79,510	0.7%	2,429	2.3%	30,546	1.5%	44.2	11.2
1998	80,578	1.3%	2,538	4.5%	31,493	3.1%	44.3	11.2
1999	81,851	1.6%	2,648	4.3%	32,356	2.7%	44.4	11.2
2000	83,024	1.4%	2,738	3.4%	32,982	1.9%	44.5	11.0
2001	84,387	1.6%	2,991	9.2%	35,438	7.4%	44.7	11.0
2002	85,366	1.2%	3,047	1.9%	35,695	0.7%	44.9	11.1
2003	83,127	-2.6%	3,046	0.0%	36,639	2.6%	45.3	11.5
2004	81,683	-1.7%	3,031	-0.5%	37,104	1.3%	45.6	11.8
2005	84,286	3.2%	3,175	4.8%	37,671	1.5%	45.6	11.6
2006	87,194	3.5%	3,355	5.7%	38,476	2.1%	45.7	11.6
2007	88,133	1.1%	3,599	7.3%	40,835	6.1%	45.8	11.5
2008	88,678	0.6%	3,751	4.2%	42,304	3.6%	45.9	11.5
2009	89,388	0.8%	3,808	1.5%	42,600	0.7%	46.0	11.5
2010	89,896	0.6%	3,855	1.2%	42,880	0.7%	46.0	11.5
2011	88,085	-2.0%	3,773	-2.1%	42,837	-0.1%	46.2	11.7
2012	87,778	-0.3%	3,925	4.0%	44,713	4.4%	46.2	11.6
2013	89,333	1.8%	3,933	0.2%	44,027	-1.5%	46.1	11.4

**Reconciliation of Plan Net Assets**

	Year Ending	
	June 30, 2013	June 30, 2012
	(1)	(2)
1. Market value of assets at beginning of year, net of Deposit Fund		
a. Value reported in prior valuation	\$ 10,194,735,564	\$ 10,156,357,170
b. Prior period adjustments	1	0
c. Revised value	\$ 10,194,735,565	\$ 10,156,357,170
2. Revenue for the year		
a. Contributions		
i. Member contributions, including state credit	\$ 290,044,395	\$ 291,385,506
ii. Grant matching funds	26,995,423	23,188,952
iii. State contribution	300,509,886	281,806,711
iv. Employer/district contributions	373,472,176	376,635,234
v. Total	\$ 991,021,880	\$ 973,016,403
b. Net investment earnings		
i. Interest, dividends and other income	\$ 330,187,539	\$ 317,343,332
ii. Net appreciation/(depreciation)	1,458,244,438	(144,717,179)
iii. Less: investment expenses	(36,139,215)	(34,781,988)
iv. Net investment earnings	\$ 1,752,292,762	\$ 137,844,165
c. Total revenue	\$ 2,743,314,642	\$ 1,110,860,568
3. Expenditures for the year		
a. Refunds	28,894,193	\$ 32,076,398
b. Benefit payments, including insurance payments	1,095,066,206	1,036,132,587
c. Administrative expenses	4,156,867	4,273,189
d. Total expenditures	1,128,117,266	\$ 1,072,482,174
4. Increase in net assets (Item 2 - Item 3)	\$ 1,615,197,376	\$ 38,378,394
5. Market value of assets at end of year, net of Deposit Fund (Item 1 + Item 4)	\$ 11,809,932,941	\$ 10,194,735,564

**Development of Actuarial Value of Assets**

	<u>Year Ending</u> <u>June 30, 2013</u>																												
1. Market value of assets at beginning of year	\$ 10,194,735,565																												
2. Net new investments																													
a. Contributions	\$ 991,021,880																												
b. Benefits paid	(1,095,066,206)																												
c. Refunds	(28,894,193)																												
d. Subtotal	<u>(132,938,519)</u>																												
3. Market value of assets at end of year	\$ 11,809,932,941																												
4. Net earnings (3-1-2)	\$ 1,748,135,895																												
5. Assumed investment return rate	8.00%																												
6. Expected return	\$ 810,261,304																												
7. Excess return (4-6)	\$ 937,874,591																												
8. Excess return on assets for last four years :																													
	<table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Period End</u></th> <th style="text-align: right;"><u>Excess Return</u></th> <th style="text-align: right;"><u>Percent Deferred</u></th> <th style="text-align: right;"><u>Deferred Amount</u></th> </tr> <tr> <th style="text-align: center;">(1)</th> <th style="text-align: center;">(2)</th> <th style="text-align: center;">(3)</th> <th style="text-align: center;">(4)</th> </tr> </thead> <tbody> <tr> <td>a. June 30, 2010</td> <td style="text-align: right;">580,645,694</td> <td style="text-align: right;">20%</td> <td style="text-align: right;">\$ 116,129,139</td> </tr> <tr> <td>b. June 30, 2011</td> <td style="text-align: right;">1,218,811,320</td> <td style="text-align: right;">40%</td> <td style="text-align: right;">487,524,528</td> </tr> <tr> <td>c. June 30, 2012</td> <td style="text-align: right;">(675,129,894)</td> <td style="text-align: right;">60%</td> <td style="text-align: right;">(405,077,936)</td> </tr> <tr> <td>d. June 30, 2013</td> <td style="text-align: right;">937,874,591</td> <td style="text-align: right;">80%</td> <td style="text-align: right;">750,299,673</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: right;"><u>\$ 948,875,404</u></td> </tr> </tbody> </table>	<u>Period End</u>	<u>Excess Return</u>	<u>Percent Deferred</u>	<u>Deferred Amount</u>	(1)	(2)	(3)	(4)	a. June 30, 2010	580,645,694	20%	\$ 116,129,139	b. June 30, 2011	1,218,811,320	40%	487,524,528	c. June 30, 2012	(675,129,894)	60%	(405,077,936)	d. June 30, 2013	937,874,591	80%	750,299,673				<u>\$ 948,875,404</u>
<u>Period End</u>	<u>Excess Return</u>	<u>Percent Deferred</u>	<u>Deferred Amount</u>																										
(1)	(2)	(3)	(4)																										
a. June 30, 2010	580,645,694	20%	\$ 116,129,139																										
b. June 30, 2011	1,218,811,320	40%	487,524,528																										
c. June 30, 2012	(675,129,894)	60%	(405,077,936)																										
d. June 30, 2013	937,874,591	80%	750,299,673																										
			<u>\$ 948,875,404</u>																										
9. Actuarial value of assets (Item 3 - Item 8)	\$ 10,861,057,537																												
10. Actuarial value as percentage of market value	92.0%																												

**Estimation of Yields**

	Year Ending	
	June 30, 2013 (1)	June 30, 2012 (2)
A. Market value yield		
1. Beginning of year market assets	\$ 10,194,735,565	\$ 10,156,357,170
2. Net investment income (including realized and unrealized gains and losses)	\$ 1,748,135,895	\$ 133,570,976
3. End of year market assets	\$ 11,809,932,941	\$ 10,194,735,564
4. Estimated dollar weighted market value yield	17.3%	1.3%
B. Actuarial value yield		
1. Beginning of year actuarial assets	\$ 10,190,480,780	\$ 9,960,576,151
2. Actuarial return	\$ 803,515,276	\$ 325,097,211
3. End of year actuarial assets	\$ 10,861,057,537	\$ 10,190,480,780
4. Estimated actuarial value yield	7.9%	3.3%

**History of Investment Return Rates**

Year Ending June 30 of	Market	Actuarial
(1)	(2)	(3)
1994	2.0%	6.5%
1995	14.9%	11.2%
1996	14.6%	11.6%
1997	20.9%	13.5%
1998	21.4%	15.8%
1999	11.9%	17.1%
2000	10.5%	15.5%
2001	-2.3%	11.4%
2002	-5.4%	5.8%
2003	4.8%	2.9%
2004	20.2%	4.6%
2005	10.0%	5.7%
2006	9.4%	8.2%
2007	18.0%	12.4%
2008	-7.5%	9.4%
2009	-16.2%	2.0%
2010	16.1%	1.7%
2011	22.7%	5.0%
2012	1.3%	3.3%
2013	17.3%	7.9%
<b>Average Returns</b>		
Last Five Years:	7.2%	4.0%
Last Ten Years:	8.4%	6.0%
Last Fifteen Years:	6.8%	7.4%
Last Twenty Years:	8.7%	8.5%

**History of Cash Flow**

Year Ending June 30,	Distributions and Expenditures					External Cash Flow for the Year <sup>1</sup>	Market Value of Assets	External Cash Flow as Percent of Market Value
	Contributions	Benefit Payments	Refunds	Administrative Expenses	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2004	608.4	(647.3)	(33.7)	(3.9)	(684.9)	(76.5)	6,666	-1.1%
2005	640.8	(701.9)	(26.8)	(4.2)	(732.9)	(92.1)	7,238	-1.3%
2006	708.4	(727.4)	(30.9)	(4.4)	(762.7)	(54.3)	7,859	-0.7%
2007	821.3	(767.2)	(33.8)	(4.5)	(805.5)	15.8	9,293	0.2%
2008	883.6	(806.5)	(35.3)	(4.8)	(846.6)	37.0	8,634	0.4%
2009	906.9	(876.3)	(32.1)	(5.2)	(913.6)	(6.7)	7,227	-0.1%
2010	910.9	(912.9)	(30.4)	(5.0)	(948.3)	(37.4)	8,352	-0.4%
2011	925.1	(969.3)	(35.2)	(4.7)	(1,009.2)	(84.1)	10,156	-0.8%
2012	973.0	(1,036.1)	(32.1)	(4.3)	(1,072.5)	(99.5)	10,195	-1.0%
2013	991.0	(1,095.1)	(28.9)	(4.2)	(1,128.2)	(137.2)	11,810	-1.2%

Dollar amounts in millions

<sup>1</sup> Column (7) = Column (2) + Column (6).

**Investment Experience Gain or Loss**

Item (1)	Year Ending June 30, 2013 (2)	Year Ending June 30, 2012 (3)
1. Actuarial assets, beginning of year	\$ 10,190,480,780	\$ 9,960,576,151
2. Contributions during year	\$ 991,021,880	\$ 973,016,403
3. Benefits and refunds paid	\$ (1,123,960,399)	\$ (1,068,208,985)
4. Assumed net investment income at 8%:		
a. Beginning of year assets	\$ 815,238,462	\$ 796,846,092
b. Contributions	39,640,875	38,920,656
c. Benefits and refunds paid	<u>(44,958,416)</u>	<u>(42,728,359)</u>
d. Total	\$ 809,920,921	\$ 793,038,389
5. Expected actuarial assets, end of year (Sum of Items 1 through 4)	\$ 10,867,463,182	\$ 10,658,421,958
6. Actual actuarial assets, end of year	\$ 10,861,057,537	\$ 10,190,480,780
7. Asset gain (loss) for year (Item 6 - Item 5)	\$ (6,405,645)	\$ (467,941,178)

**Total Experience Gain or Loss**

Item (1)	Year Ending June 30, 2013 (2)	Year Ending June 30, 2012 (3)
<b>A. Calculation of total actuarial gain or loss</b>		
1. Unfunded actuarial accrued liability (UAAL), previous year	\$ 8,397,561,658	\$ 7,600,178,301
2. Normal cost for the year (employer and employee)	\$ 403,723,342	\$ 407,415,536
3. Less: total contributions for the year	\$ (991,021,880)	\$ (973,016,403)
4. Interest at 8%:		
a. On UAAL	\$ 671,804,933	\$ 608,014,264
b. On normal cost	16,148,934	16,296,621
c. On contributions	(39,640,875)	(38,920,656)
d. Total	<u>\$ 648,312,992</u>	<u>\$ 585,390,229</u>
5. Expected UAAL (Sum of Items 1 through 4)	\$ 8,458,576,112	\$ 7,619,967,663
6. Actual UAAL	\$ 8,112,109,202	\$ 8,397,561,658
7. Total gain (loss) for the year (Item 5 - Item 6)	\$ 346,466,910	\$ (777,593,995)
<b>B. Source of gains and losses</b>		
8. Asset gain (loss) for the year	\$ (6,405,645)	\$ (467,941,178)
9. Liability gain (loss) for the year	352,872,555	(179,657,156)
10. Ad hoc COLA granted different than assumed	0	0
11. Impact of changes in actuarial assumptions and methods	0	0
12. Impact of legislative changes	<u>0</u>	<u>(129,995,661)</u>
13. Total	\$ 346,466,910	\$ (777,593,995)

**Analysis of Change in Unfunded Actuarial Accrued Liability (UAAL)**

Basis (1)	June 30, 2013 UAAL (in \$ Millions) (2)	June 30, 2012 UAAL (in \$ Millions) (3)
1. From prior valuation	\$ 8,397.6	\$ 7,600.2
2. Impact of changes, gains and losses		
a. Expected increase based on expected contributions and passage of time	55.9	65.2
b. Liability (gain)/loss	(352.9)	179.7
c. Asset (gain)/loss	6.4	467.9
d. Impact of actual contributions (more)/less than expected under schedule	5.1	(45.4)
e. Ad hoc COLA granted different than assumed	0.0	0.0
f. Impact of changes in actuarial assumptions and methods	0.0	0.0
g. Legislative changes	0.0	130.0
h. Total	(285.5)	797.4
3. Current UAAL (1+2h)	\$ 8,112.1	\$ 8,397.6

Columns may not total due to rounding

**Analysis of Change in GASB ARC**

Basis	June 30, 2013 GASB ARC (Percent of Pay)	June 30, 2012 GASB ARC (Percent of Pay)
(1)	(2)	(3)
1. Prior Valuation GASB 25 Contribution as a percentage of payroll	15.06%	14.87%
2. Increases/(Decreases) due to:		
a. Expected increase based on expected contributions	(0.33%)	(0.33%)
b. Ad hoc COLA granted different than assumed	0.00%	0.00%
c. Impact of changes in actuarial assumptions and methods	0.00%	0.00%
d. Legislative changes	0.00%	(0.30%)
e. Asset (gain)/loss	0.01%	0.68%
f. All other plan experience: liability (gain) or loss, differences between actual and expected payroll, differences between actual and expected contributions, etc.	(0.12%)	0.14%
g. Total	(0.44%)	0.19%
3. Current GASB 25 Contribution as a percentage of payroll	14.62%	15.06%

**Projection of UAAL**

Valuation Date (1)	UAAL (Millions) (2)
June 30, 2013	\$ 8,112.1
June 30, 2014	7,664.0
June 30, 2015	7,306.7
June 30, 2016	7,163.4
June 30, 2017	6,852.1
June 30, 2018	6,691.4
June 30, 2019	6,489.9
June 30, 2020	6,242.9
June 30, 2021	5,945.4
June 30, 2022	5,591.8
June 30, 2023	5,176.6
June 30, 2024	4,693.3
June 30, 2025	4,134.9
June 30, 2026	3,494.2
June 30, 2027	2,763.0
June 30, 2028	1,932.7
June 30, 2029	993.8
June 30, 2030	(64.4)

**Solvency Test**

Actuarial Accrued Liability and Percent of Active Member Payroll for:

June 30,	Accumulated Member Contributions Including Interest		Retirees and Beneficiaries Currently Receiving Benefits		Terminated Employees Not Yet Receiving Benefits		Employer Financed Portion of Vested and Nonvested Benefits		Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Assets			
	(1)	% of Payroll	(2)	% of Payroll	(3)	% of Payroll	(4)	% of Payroll		(1)	(2)	(3)	(4)
2004	\$ 3,212.9	106%	\$ 6,899.0	228%	\$ 284.7	9%	\$ 3,683.6	122%	\$ 6,660.9	100%	50%	0%	0%
2005	3,381.7	107%	7,046.5	222%	301.4	9%	3,322.9	105%	6,952.7	100%	51%	0%	0%
2006	3,853.7	115%	7,340.0	219%	314.3	9%	3,635.3	108%	7,470.4	100%	51%	0%	0%
2007	4,057.5	113%	7,730.3	215%	331.6	9%	3,905.0	109%	8,421.9	100%	56%	0%	0%
2008	4,323.0	115%	8,919.6	238%	370.1	10%	4,734.2	126%	9,256.8	100%	55%	0%	0%
2009	4,563.9	120%	9,312.4	245%	398.1	10%	4,676.6	123%	9,439.0	100%	52%	0%	0%
2010	4,743.9	123%	10,216.3	265%	419.2	11%	4,601.2	119%	9,566.7	100%	47%	0%	0%
2011	4,931.4	131%	9,316.6	247%	379.9	10%	2,932.9	78%	9,960.6	100%	54%	0%	0%
2012	5,087.4	130%	9,814.2	250%	443.8	11%	3,242.6	83%	10,190.5	100%	52%	0%	0%
2013	5,252.6	134%	10,315.6	262%	469.3	12%	2,935.7	75%	10,861.1	100%	54%	0%	0%

Note: Dollar amounts in millions

**Distribution of Active Members by Age and by Years of Service**

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.	
Under 25	308 \$30,920	978 \$29,876	314 \$29,950	36 \$22,579	20 \$24,097	3 \$29,686	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	1,659 \$29,856
25-29	401 \$32,297	1,888 \$31,593	1,709 \$33,389	978 \$35,601	973 \$36,068	1,212 \$36,236	4 \$45,232	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	7,165 \$34,008
30-34	275 \$31,861	1,151 \$31,040	993 \$33,523	675 \$35,632	781 \$36,954	4,548 \$39,293	598 \$42,539	5 \$45,643	0 \$0	0 \$0	0 \$0	0 \$0	9,026 \$37,122
35-39	209 \$30,603	914 \$29,730	804 \$33,754	554 \$35,795	634 \$36,956	3,288 \$40,401	2,887 \$46,098	548 \$49,220	0 \$0	0 \$0	0 \$0	0 \$0	9,838 \$40,340
40-44	219 \$29,971	799 \$28,922	783 \$31,796	594 \$35,678	672 \$36,045	3,151 \$39,632	2,457 \$48,890	2,744 \$50,938	608 \$52,685	5 \$67,663	0 \$0	0 \$0	12,032 \$42,979
45-49	141 \$31,007	647 \$29,247	589 \$31,767	432 \$33,104	509 \$34,833	2,650 \$38,037	2,149 \$47,624	1,810 \$53,498	2,326 \$55,140	485 \$55,912	4 \$50,936	0 \$0	11,742 \$45,102
50-54	157 \$34,200	565 \$31,141	579 \$32,688	406 \$33,693	465 \$34,634	2,573 \$37,435	2,274 \$46,159	2,010 \$51,249	1,984 \$55,471	1,881 \$58,088	530 \$61,431	2 \$51,893	13,426 \$46,771
55-59	119 \$34,242	448 \$31,547	454 \$35,956	322 \$33,062	342 \$35,441	2,021 \$37,849	1,837 \$45,537	1,930 \$48,871	1,945 \$53,817	1,204 \$61,922	1,411 \$63,124	357 \$67,275	12,390 \$48,755
60-64	67 \$32,151	257 \$27,772	236 \$35,225	215 \$36,509	255 \$32,727	1,312 \$39,265	1,202 \$47,161	1,207 \$49,848	1,252 \$53,204	913 \$61,384	693 \$72,575	839 \$68,918	8,448 \$51,248
65 & Over	28 \$23,262	137 \$21,937	117 \$26,723	91 \$24,429	112 \$28,114	632 \$35,082	515 \$45,901	454 \$56,341	467 \$56,576	377 \$66,838	236 \$82,341	441 \$94,440	3,607 \$54,407
Total	1,924 \$31,610	7,784 \$30,276	6,578 \$33,017	4,303 \$34,721	4,763 \$35,595	21,390 \$38,697	13,923 \$46,693	10,708 \$51,072	8,582 \$54,538	4,865 \$60,126	2,874 \$66,652	1,639 \$75,407	89,333 \$44,027

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## APPENDICES

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## SUMMARY OF PLAN PROVISIONS

1. Effective Date: July 1, 1943.
2. Plan Year: Twelve-month period ending June 30th.
3. Administration: The Teachers' Retirement System of Oklahoma is administered by a Board of Trustees, which is responsible for administration of the System and investment of System assets. Three members serve ex officio, while a total of ten others are appointed by the Governor (six), the President of the Senate (two), and the Speaker of the House (two), according to various guidelines.
4. Type of Plan: The System is a qualified governmental defined benefit retirement plan. For GASB purposes, it is a cost-sharing multiple-employer PERS.
5. Eligibility: All employees of any public school in Oklahoma, including public colleges and universities, are eligible to participate in the System. Classified personnel (teachers, supervisors, principals, registered school nurses, administrators, etc.) are required to participate, beginning at their date of employment. Non-classified employees (all other employees, such as drivers, secretaries, janitors, cooks, etc.) may, but are not required to, participate. Certain other State employees, such as employees of the System itself, participate in the System. Beginning July 1, 2004, new employees hired by the comprehensive universities (Oklahoma University, the Health Sciences Center, and Oklahoma State University) may elect to join an alternate plan provided by the universities in lieu of joining OTRS. The election to join the alternate plan is irrevocable.
6. Maximum Pay: Prior to July 1, 1995, contributions under this System were based on pay up to a maximum dollar amount. Members could choose between a \$40,000 maximum and a \$25,000 maximum. The member's Final Average Compensation was limited by this same maximum, so the member's election affected both benefits and contributions.

The maximum was removed for most members effective July 1, 1995. It no longer applies in determining the required member and employer contributions. It does still have an impact, however. As noted below, benefits based on service earned before July 1, 1995 are limited by the \$40,000 or \$25,000 maximum, whichever was elected. This cap may be modified for members in the Education Employees Service Incentive Plan (EESIP). See Item 22 below discussing the EESIP provisions.

In addition, the cap on salary continued to apply after June 30, 1995 to members employed by one of the comprehensive universities who entered the System before July 1, 1995. The cap on salary for contribution purposes is shown in the schedule below. All caps were removed effective July 1, 2007.

	<u>Elected \$40,000 Maximum</u>	<u>Elected \$25,000 Maximum</u>
1995/1996	\$44,000	\$27,500
1996/1997	49,000	32,500
1997/1998	54,000	37,500
1998/1999	59,000	42,500
1999/2000	59,000	42,500
2000/2001	64,000	47,500
2001/2002	69,000	52,500
2002/2003	74,000	57,500
2003/2004	79,000	62,500
2004/2005	84,000	67,500
2005/2006	89,000	72,500
2006/2007	94,000	77,500
Thereafter	No limit	No limit

Benefits for the members employed by the comprehensive universities, except for those hired on or after July 1, 1995, are limited by the pay caps for the period before July 1, 2007.

7. Member Contributions: Generally, active members contribute 7.00% of all compensation to the System. A school district may pay all or part of the contribution for its employees.

8. Employer Contributions: Employers are required to contribute a fixed percentage of pay on behalf of active members. The employer contribution rate is now applied to all pay, although historically the rate was not applied to pay above the cap on salary.

The employer contribution rate for years from July 1, 2002 through December 31, 2006 was 7.05% of covered salary. Effective January 1, 2007, the employer contribution rate paid by all employers covered by the EESIP increased to 7.60%. This rate then increased to 7.85% effective July 1, 2007, 8.35% effective January 1, 2008, 8.50% effective July 1, 2008, 9.00% effective January 1, 2009, and 9.50% effective January 1, 2010. For employers not covered by the EESIP—the comprehensive and regional four-year universities—the rate increased to 7.55% effective January 1, 2008, 8.05% effective January 1, 2009, and 8.55% effective January 1, 2010.

In addition, the State of Oklahoma contributes 5.00% percent of revenues from sales taxes, use taxes, corporate income taxes and individual income taxes. The 5.00% rate became effective on July 1, 2007. The rates are shown in the following schedule on the next page.

<u>Fiscal Year</u>	<u>State Contribution Percentage</u>
FY 2003	3.54%
FY 2004	3.54%
FY 2005	3.75%
FY 2006	4.00%
FY 2007	4.50%
FY 2008	5.00%
Thereafter	5.00%

Beginning in FY 2006, the State also contributes 5.00% of lottery proceeds.

If a member's salary is paid from federal funds or certain grant money, an additional contribution (the grant matching contribution) is required. The matching contribution rate is set by the Board of Trustees annually, and is intended to approximate the State's contribution, expressed as a percentage of non federal/grant salaries.

<u>Fiscal Year</u>	<u>Federal/Grant Contribution Percentage</u>
FY 2003	5.00%
FY 2004	4.50%
FY 2005	4.50%
FY 2006	5.00%
FY 2007	7.00%
FY 2008	7.00%
FY 2009	7.50%
FY 2010	7.50%
FY 2011	6.50%
FY 2012	7.00%
FY 2013	8.00%
FY 2014	8.25%

9. Service: Employees receive credit for a year of service if they are contributing members for at least six months within one school year. For service performed on or after July 1, 2013, fractional service will be awarded for less than full-time employment performed during the contract year. Fractional service credit will be added together and the resulting sum will be included in the retirement formula calculations.

Credit may also be granted for service prior to the System's effective date, and non-classified employees can purchase credit for their prior service once they have joined the System. Credit is also available for some out-of-state and military service under certain circumstances.

Finally, members receive a year of service credit if they have accumulated 120 days of unused sick leave at termination. As of August 1, 2012, if a member has less than 120 days of unused sick leave at termination, additional service credit for sick leave days shall be equal to the number of unused sick leave days divided by 120 days.

10. Final Average Compensation (FAC): The average of the member's compensation for the three or five years on which the highest contributions are paid. For persons becoming members before July 1, 1992, the averaging period is three years. For other members, the averaging period is five years. For service prior to July 1, 1995, the FAC is limited to \$40,000 or \$25,000, depending on the member's election and participation in the EESIP as discussed in Item 6 above and in Item 22.

11. Normal Retirement

- a. Eligibility: A member is eligible to retire and receive a Normal Retirement benefit if (i) the member is at least age 62 and has credit for five or more years of service, or (ii) the sum of the member's age and service is at least 80 (Rule of 80). For members joining after June 30, 1992, a "Rule of 90" is used instead of the "Rule of 80". Members joining after October 31, 2011 are eligible if (i) the member is at least age 65 and has credit for five or more years of service, or (ii) the member is at least age 60 and meets the "Rule of 90".
- b. Monthly Benefit: 2% of FAC (limited to \$40,000 or \$25,000, as appropriate) times years of service prior to July 1, 1995, plus 2% of FAC (unlimited) times years of service after June 30, 1995. Special provisions apply to members covered by the EESIP (see Item 22 below). Other special provisions apply to higher education members for service during the period July 1, 1995 through June 30, 2007 if their pay in any year in this period exceeded the applicable maximum. Monthly benefits are equal to one-twelfth of the calculated amount.
- c. Payment Form: Benefits are paid as a monthly life annuity, with a guarantee that if the payments made do not exceed the member's accumulated contributions, determined as of the date of retirement, the balance will be paid in a lump-sum to the member's beneficiary. Optional forms of payment are available; see below.

12. Early Retirement

- a. Eligibility: A member is eligible to retire early if the member is at least age 55 and has credit for five or more years of service, or at any age after 30 years of service. For members joining after October 31, 2011, a member is eligible to retire early if the member is at least age 60 and has credit for five or more years of service.
- b. Monthly Benefit: The Normal Retirement benefit (based on current years of service) multiplied by the applicable early retirement factor below.

c. Early Retirement Factor:

Retirement Age	Actuarial Equivalent Factors for Members Joining before November 1, 2011	Statutory Factors for Members Joining after October 31, 2011
65 or later	1.000000	1.00
64	1.000000	0.93
63	1.000000	0.86
62	1.000000	0.80
61	0.907808	0.73
60	0.825271	0.65
59	0.751219	N/A
58	0.684644	N/A
57	0.624673	N/A
56	0.570554	N/A
55	0.521634	N/A
54	0.477344	N/A
53	0.437186	N/A
52	0.400720	N/A
51	0.367562	N/A
50	0.337374	N/A

d. Payment Form: Same as for Normal Retirement above.

13. Disability Retirement

a. Eligibility: A member is eligible provided (i) he/she has credit for at least 10 years of service and (ii) the disability is approved by the Medical Board appointed by the Board of Trustees.

b. Monthly Benefit: Same as for Normal Retirement above (based on current service).

c. Payment Form: The disability benefit commences immediately upon the member's retirement. Benefits are reduced or cease entirely upon recovery or reemployment prior to age 60. Disability benefits are payable as a monthly life annuity, with a guarantee that if the payments made do not exceed the sum of the member's accumulated contributions as of the date of retirement, the balance will be paid in a lump-sum to the member's beneficiary. A married, disabled member may elect a reduced benefit under the Joint & 100% Survivor option (with pop up) form of payments (Option 2 described in Item 17 below).

14. Vested Termination Benefit

- a. Eligibility: A member with at least 5 years of service who does not withdraw his/her contributions from the fund is eligible for a vested termination benefit.
- b. Monthly Benefit: Same as for Normal Retirement above (based on current service). If benefits commence prior to age 62 (age 65 for members joining after October 31, 2011), they may be reduced for Early Retirement above.
- c. Payment Form: Same as for Normal Retirement above.

15. Withdrawal (Refund) Benefit

- a. Eligibility: All members leaving covered employment with less than 5 years of service for a reason other than the member's death. Optionally, members eligible for other benefits may withdraw their contributions in lieu of the regular benefits due.
- b. Benefit: The member who withdraws receives a lump-sum payment of his/her employee contributions, plus a portion of the interest credited by the System on these contributions. Interest is credited at an annual rate of 8%. The portion of the interest paid on termination depends on the member's years of service as follows:

Years of Service	Percent of Interest Refunded
0-15	50%
16-21	60%
22-25	75%
26 or more	90%

16. Death in Service

- a. Eligibility: Death must have occurred while an active member.
- b. Benefit: Upon the death of an active member, a refund of the member's contributions and 100% of the interest credited is paid. In addition, a lump sum of \$18,000 will be paid. If the member is eligible for retirement (early or normal) at the time of death, and the member is married, the spouse may elect to receive a monthly life annuity equal to the retirement benefit for which the member was eligible, reduced as though the member had elected to receive benefits under Option 2 (see below). This annuity is paid in lieu of both (i) the \$18,000 lump-sum death benefit and (ii) the refund of contributions.

The spouse of an EESIP eligible member can elect to receive the enhanced benefit described under Item 22 below.

17. Optional Forms of Payment: There are optional forms of payment available on an actuarially equivalent basis, as follows:

- a. Option 1 - A modified cash refund annuity payable for life with a guaranteed refund of the member's contributions and interest, less the total of the "annuity" payments paid. (The "annuity" payment is the portion of the monthly benefit provided by the member's own account balance.)
- b. Option 2 - A joint life annuity payable while both the member and the joint annuitant are alive; and if the member dies before the joint annuitant, continuing without change to the joint annuitant; or if the joint annuitant dies before the member, "popping-up" to the original life annuity amount and continuing for the life of the member.
- c. Option 3 - A joint life annuity payable while both the member and the joint annuitant are alive; and if the member dies before the joint annuitant, continuing at 50% of this amount for the joint annuitant's lifetime; or if the joint annuitant dies before the member, "popping-up" to the original life annuity amount and continuing for the life of the member.
- d. Option 4 - A life annuity with a guarantee that if the member dies before 120 payments (10 years) have been made; the payments will be continued to the member's beneficiary for the balance of the ten-year period.
- e. PLSO Option - A partial lump-sum option (PLSO) is allowed for those members with at least 30 years of service upon retirement. The amount of the PLSO is equal to 12, 24, or 36 times the member's monthly retirement benefit, determined before applying any reduction for the PLSO or any other optional form of payment. A member who elects to receive a PLSO will have his/her monthly retirement benefit reduced on an actuarial basis to compensate for the fact that a PLSO is provided. A member who elects a PLSO may elect any of the other optional forms of payment as well, taking a further reduction in the annuity amount.

Actuarial equivalence is based on tables adopted by the Board of Trustees.

18. Special Retirees: This is a group of retirees who have been granted a special \$150 per month benefit although they did not fulfill the requirements for service retirement. With cost of living increases, the special retirees now average \$195 per month.

19. Supplemental Medical Insurance

- a. Eligibility: All retired members (including service retirees and disabled retirees but excluding the special retirees and spouses or beneficiaries) who have at least 10 years of service credit are eligible for a supplemental medical insurance payment.
- b. Monthly Benefit: Eligible members receive the smaller of (i) a Medicare supplement benefit, if eligible, or (ii) an amount between \$100 and \$105 per month, depending on service and Final Average Compensation.
- c. Payment Form: Benefits are payable as a life annuity on behalf of the retired member to (i) the Oklahoma Employees' Group Insurance Plan, if the member has health coverage under this Plan, or (ii) to the member's former employer, if the member retains health coverage under a plan maintained by the former employer.

20. Post-retirement Death Benefit

- a. Eligibility: All retired members (including service retirees and disabled retirees but excluding the special retirees and spouses or beneficiaries) are eligible for a post-retirement death benefit.
- b. Benefit: A lump-sum payment of \$5,000.

21. Cost-of-living Increase: From time to time, the System has been amended to grant certain post-retirement benefit increases. However, the System has no automatic cost-of-living increase features.

22. EESIP: The Education Employees Service Incentive Plan (EESIP) was created in 2006. Active members are eligible for the EESIP if they have service prior to July 1, 1995, are active on or after July 1, 2006, and are not employed by one of the comprehensive or regional four-year universities.

The EESIP allows for two years of service prior to July 1, 1995 to be computed at an enhanced or eliminated cap for each year that the employee has worked beyond Normal Retirement Age at the time of retirement.

For each "uncapped" year, the \$40,000 cap applicable to service before July 1, 1995 is increased to \$60,000 for retirements in FY 2007, to \$80,000 for retirements in FY 2008, and the cap is removed beginning July 1, 2008. The employee that elects the enhanced benefit must pay the accumulations, at 10% interest, of contributions that would have been required but for the cap then in place. Payment is required only for years FY 1988 through FY 1995 even if more than 8 years of service prior to July 1, 1995 are being "uncapped." Payment is required only for those years of service that are computed at an elevated or eliminated cap.

Contributions are required at the following rates for salary in excess of the \$25,000 or \$40,000 cap earned in years FY 1998 through FY 1995:

<u>Fiscal Year</u>	<u>Contribution Percentage</u>
FY 1995	8.00%
FY 1994	9.00%
FY 1993	11.00%
FY 1992	11.00%
FY 1991	11.00%
FY 1990	10.50%
FY 1989	10.00%
FY 1988	10.00%

For those members electing the enhanced benefit, the payment required is 50% of the accumulated balance in FY 2007, 75% of the accumulated balance in FY 2008 and 100% of the accumulated balance on or after FY 2009.

## HISTORY OF MAJOR LEGISLATIVE CHANGES

### 1990 Legislative Session

1. An ad hoc benefit increase was granted to retirees and beneficiaries who had been receiving benefits for at least one year. Special retirees were not granted this increase. The increase was determined by adding an amount to the Final Average Compensation for the member, and then re-determining the benefit due. For classified members, the amount added was \$950, while for non-classified members, the amount added was \$475. In all cases, Final Average Compensation was capped at \$40,000.
2. The local employer contribution rate was increased from 1.0% of covered compensation in accordance with the following schedule:

Year Beginning July 1	Local Employer Contribution Rate
(1)	(2)
1990	1.0%
1991	1.5%
1992	2.0%
1993	2.5%

### 1991 Legislative Session

No legislation enacted with an actuarial impact to the System.

### 1992 Legislative Session

SB 568 made the following changes:

- Increased employer rates (grading from 7% for 1992/1993 to 18% for 2004/2005) and changed State contributions to offset for employer contributions.
- Eliminated the salary cap effective July 1, 1995.
- Changed the member contribution rate to 7% (after July 1, 1997, phased in prior to that date).
- Changed the FAC averaging period to five years for new members.
- Eliminated the \$18,000 death benefit (and the optional survivor annuity) for new members.

- Changed the formula to cap FAC with the member's pay cap for service prior to July 1, 1995.
- Changed the Rule of 80 to the Rule of 90 for new members.

### ***1993 Legislative Session***

SB 535 set forth a schedule which reduces the maximum payment for supplemental medical insurance from \$75/month to an amount between \$70 and \$75 per month, depending on service and Final Average Compensation.

### ***1994 Legislative Session***

1. HB 2228 provided for an ad hoc COLA payable to members receiving benefits. The average increase is about 2.5%.
2. SB 768 changed the System's joint options to "pop-up" options. This change was and to \$48,000 and \$30,000 for 1996-97. The member contribution rate for these made for both current and future retirees. Under a pop-up option, if the joint annuitant predeceases the member, the member's benefit is increased to the amount it would have been if the member had elected a life only annuity.
3. SB 767 provided for the transfers of service credit between this System and the Oklahoma Public Employees Retirement System.
4. SB 615 provides that the local employer's contribution rate shall not be less than the local employer's contribution rate for the prior year.

### ***1995 Legislative Session***

SB 527 modified the provisions affecting members employed in higher education who became members prior to July 1, 1995. For these members, the \$40,000 and \$25,000 pay caps were left in place for two additional years, but were indexed to \$44,000 and \$27,500 for 1995-96 members was set to 6.0% for 1995-96 and 6.5% for 1996-97. The benefit provisions were also modified so that only pay up to the maximum would be recognized for these years. After June 30, 1997, these members will contribute 7% of total pay like all other members. In addition, SB 527 modified the SB 568 employer contribution rate schedule. The new employer rates are 50 basis points lower in each year until the rate reaches 18.00%.

**1996 Legislative Session**

SB 832 modified the provisions relating to (i) member contributions, (ii) maximum compensation, and (iii) the benefit formula, for members employed in higher education. Beginning July 1, 1995, all members will contribute on all pay, except for members employed by a comprehensive university who became a member before July 1, 1995, whose recognized compensation is limited to

	For members who elected the \$25,000 limit prior to June 30, 1995	For all other members
1996-97	\$32,500	\$49,000
1997-98	37,500	54,000
1998-99	42,500	59,000
1999-00	47,500	64,000
2000-01	52,500	69,000
thereafter	no limit	no limit

Employer contributions will be based on the same compensation as member contributions. In 1996-98, member contributions will be 6.5% of pay up to \$25,000 plus 7% of pay in excess of \$25,000, up to the maximum recognized compensation. The benefit formula was also adjusted so that for service earned between July 1, 1995 and June 30, 2001, members in higher education have their benefits adjusted for the compensation limits.

**1997 Legislative Session**

The post-retirement death benefit was increased from \$4,000 to \$5,000.

**1998 Legislative Session**

1. An ad hoc benefit increase was granted to retirees and beneficiaries who had been receiving benefits for at least one year. The increase was determined by adding an amount to the Final Average Compensation for the member, and then redetermining the benefit due. For classified members, the amount added was \$1,400, while for non-classified members, the amount added was \$700. Special retirees received a 5.4% increase.
2. The funding mechanism was changed, eliminating the State's contribution of 78% of its Gross Production Tax receipts after the 1999 fiscal year and substituting a contribution based on a percentage of general revenue available for appropriation (95% of general revenue). The percentage is 3.25% for the fiscal year ending June 30, 2000, and 3.50% thereafter. The local employer's contribution rates were revised for years after the 1999 fiscal year as follows:

<u>Year</u>	<u>Employer Rate</u>
1999/2000	4.80%
2000/2001	5.80%
2001/2002	6.80%
Thereafter	7.05%

### ***1999 Legislative Session***

1. The pay caps applicable to certain members employed by one of the comprehensive universities were extended to FY 2007. The cap in effect for FY 1999 was left unchanged for FY 2000, and then will be increased \$5,000 each year thereafter. This change affects both contributions and benefit calculations for these members.
2. The State's funding mechanism was changed again. Now the State's annual contribution will be 3.54% of certain specified sales and income tax revenues. This amount is subject to a \$136.0 million maximum contribution for FY 2000 only.

### ***2000 Legislative Session***

1. An ad hoc benefit increase was granted to retirees and beneficiaries who had been receiving benefits for at least one year. The increase was determined by adding an amount to the Final Average Compensation for the member, and then redetermining the benefit due. For classified members, the amount added was \$500, while for non-classified members, the amount added was \$250. Special retirees received a 1.8% increase.
2. SB 994 set forth a schedule which increases the maximum payment for supplemental medical insurance by \$30/month from an amount between \$70 and \$75 per month to an amount between \$100 and \$105 per month, depending on service and Final Average Compensation.

### ***2001 Legislative Session***

No legislation enacted with an actuarial impact to the System.

### ***2002 Legislative Session***

1. An ad hoc benefit increase was granted to retirees and beneficiaries, beginning July 1, 2002, if they had been receiving benefits for at least one year. Retirees were given a 3% increase if they had less than 30 years of credited service and a 4% increase if they had 30 or more years of credited service. Special retirees received a 3% increase.
2. The State's contribution is equal to a percentage of the State's revenue from certain sales and income taxes. The percentage is currently 3.54%, but a bill was passed to increase the percentage over the next five years to 5.00%, according to this schedule.

FY 2003	3.54%
FY 2004	3.54%
FY 2005	3.75%
FY 2006	4.00%
FY 2007	4.50%
FY 2008	5.00%

### ***2003 Legislative Session***

1. The service requirement for vesting was changed from ten years to five years. Under this provision, a member is now able to retire with an unreduced retirement benefit after reaching age 62 with credit for 5 or more years of service. A member who has reached age 55, but not age 62, with at least 5 years of service, is able to retire and receive a reduced retirement benefit. A member who has terminated before being eligible to retire, but who has at least 5 years of service, may elect a deferred retirement benefit in lieu of a refund. However, members must still have credit for at least 10 years of service in order to be eligible for a disability benefit or the medical insurance premium supplement.
2. Refunds for members who have less than seven years of service will receive their contributions plus 50% of the interest on their account. Previously members with less than seven years of service received no interest. Interest is computed at 8.00%
3. A partial lump-sum option (PLSO) was added. Members who retire with at least 30 years of service may elect a PLSO equal to 12, 24, or 36 times the member's monthly retirement benefit, determined before applying any reduction for the PLSO or any other optional form of payment. A member who elects to receive a PLSO will have his/her monthly retirement benefit reduced on an actuarial basis to compensate for the fact that a PLSO is provided.
4. Disabled members may now elect Option 2—the Joint & 100% Survivor option (with pop up).

### ***2004 Legislative Session***

1. An ad hoc benefit increase was granted to retirees and beneficiaries, beginning August 1, 2004, if they had retired on or before June 30, 2003. Special retirees received a 4.0% increase, and increases for other eligible retirees are as follows:

Years of Service	Monthly Benefit at 6/30/04	Benefit Increase
20 Years or more	Less than \$1,500.00	4.5%
	\$1,500.00 to \$2,500.00	4.0%
	Over \$2,500.00	3.5%
15 to 19 Years	Less than \$1,000.00	4.0%
	\$1,000.00 to \$2,000.00	3.5%
	Greater than \$2,000.00	3.0%
Fewer than 15 years	Less than \$801.00	3.5%
	\$801.00 to \$1,499.99	3.0%
	\$1,500.00 or greater	2.5%

2. Members who joined the System on or after July 1, 1992 receive a year of service credit if they have accumulated 120 days of unused sick leave. Previously, this additional service was only available to members hired prior to July 1, 1992.
3. Beneficiaries of members hired on or after July 1, 1992 are eligible to receive an \$18,000 lump sum death benefit in addition the member's contribution balance with 100% of credited interest. If the member was eligible for early or normal retirement, the beneficiary may choose the retirement benefit for which the member was eligible in lieu of the contribution balance and \$18,000 lump sum. Previously, the annuity option and \$18,000 lump sum had only been available to members hired before July 1, 1992.
4. The benefit formula for members hired in FY 1996 at any of the colleges or universities in the Oklahoma State System of Higher Education is 2.0% of final average salary, computed at retirement, for each year of service. Previously, the formula was 2.0% of salary for service in FY 1996 plus 2.0% of final average salary, computed at retirement, for each year of service earned after June 30, 1996.
5. Employees hired by one of the comprehensive universities – Oklahoma University, the Health Sciences Center, and Oklahoma State University – after June 30, 2004 may make an irrevocable election to join an alternate plan established by the universities in lieu of becoming a member of OTRS.
6. The Board of Trustees is required to adopt an assumption as to the level of probable future ad hoc cost-of-living adjustments that will be granted by the legislature in the future.
7. The supplemental medical insurance credit is restricted to members who retire with at least 10 years of service credit.

8. The formula used to determine benefits accrued for service earned between July 1, 1995 and June 30, 2007, for members employed by a comprehensive university, is modified. Retirees who had service at a comprehensive university after June 30, 1995 will receive a benefit increase because of this formula change, effective as of January 1, 2005. No retroactive increase will be paid to such retirees.
9. Members who are employed by a comprehensive university before July 1, 2004 will be given a future opportunity to make a one-time irrevocable election to leave OTRS and join an alternative plan established by the universities. The timing of the election depends on if and when IRS approval is received.
10. The comprehensive universities will make additional contributions to OTRS on behalf of members in their alternative plan.

### ***2005 Legislative Session***

No legislation enacted with an actuarial impact to the System.

### ***2006 Legislative Session***

1. The Education Employees Service Incentive Plan (EESIP) was created:

Active members are eligible for the EESIP if they have service prior to July 1, 1995, are active on or after July 1, 2006, and are not employed by one of the comprehensive or regional four-year universities.

The EESIP allows for two years of service prior to July 1, 1995 to be computed at an enhanced or eliminated cap for each year that the employee has worked beyond Normal Retirement Age at the time of retirement.

For each “uncapped” year, the \$40,000 cap applicable to service before July 1, 1995 is increased to \$60,000 for retirements in FY 2007, to \$80,000 for retirements in FY 2008, and the cap is removed beginning July 1, 2008. The employee that elects the enhanced benefit must pay the accumulations, at 10% interest, of contributions that would have been required but for the cap then in place. Payment is required only for years FY 1988 through FY 1995 even if more than 8 years of service prior to July 1, 1995 are being “uncapped.” Payment is required only for those years of service that are computed at an elevated or eliminated cap.

For those members electing the enhanced benefit, the payment required is 50% of the accumulated balance in FY 2007, 75% of the accumulated balance in FY 2008 and 100% of the accumulated balance on or after FY 2009.
2. The employer contribution rate was increased for employers covered by the EESIP. The rate increased from 7.05% to 7.60% effective Jan. 1, 2007, and then to 7.85% for

FY 2008 and to 8.00% for FY 2009. The employer contribution rate for the employers not covered by the EESIP—the comprehensive and regional four-year universities—remained at 7.05%.

3. A 2.00% ad hoc cost-of-living adjustment (COLA) was provided, effective July 1, 2006. All retirees who retired before July 1, 2005 were eligible, including disabled retirees, special retirees and beneficiaries receiving payments.

### **2007 Legislative Session**

The employer contribution rates, beginning July 1, 2007, were increased as shown in the following schedule. Different rates are paid by employers in the Education Employees Service Incentive Plan (EESIP) and those not in EESIP (the comprehensive and regional four-year universities):

Period:	Employer Contribution Rates	
	EESIP Employers	Non-EESIP Employers
7/1/2006 – 12/31/2006	7.05%	7.05%
1/1/2007 – 6/30/2007	7.60%	7.05%
7/1/2007 – 12/31/2007	7.85%	7.05%
1/1/2008 – 6/30/2008	8.35%	7.55%
7/1/2008 – 12/31/2008	8.50%	7.55%
1/1/2009 – 6/30/2009	9.00%	8.05%
7/1/2009 – 12/31/2009	9.00%	8.05%
1/1/2010 – 6/30/2010	9.50%	8.55%
FY 2011 and later	9.50%	8.55%

### **2008 Legislative Session**

A 2.00% ad hoc cost-of-living adjustment (COLA) was provided, effective July 1, 2008. All retirees who retired before July 1, 2007 were eligible, including disabled retirees, special retirees and beneficiaries receiving payments.

### **2009 Legislative Session**

No legislation enacted with an actuarial impact to the System.

**2010 Legislative Session**

1. HB 1935 allows a retiree electing one of the optional benefit forms (i.e. not life only) to make a one-time irrevocable change in the benefit option within 60 days of retirement. The beneficiary may not be changed.
2. SB 859 allows a retiree who chose a life annuity at retirement to change to Retirement Option 2 or 3 (100% joint survivor annuity and 50% joint survivor annuity respectively) within a year of marriage.

**2011 Legislative Session**

1. SB 377 changes the eligibility conditions for both normal and early retirement for members hired on or after November 1, 2011. Members will be eligible for normal retirement at the earlier of age 65 with 5 years of service or when their age plus service equals 90 (Rule of 90) with a minimum age of 60. Members will be eligible for early (reduced) retirement at age 60 with 5 years of service.
2. HB 2132 changes the definition of a nonfiscal retirement bill to exclude cost of living adjustments (COLA) even if such COLAs are assumed in the annual actuarial valuation.
3. SB 782 eliminates the requirement that statewide retirement systems report a second set of actuarial valuation results to the Oklahoma State Pension Commission using specified actuarial assumptions.

**2012 Legislative Session**

No legislation enacted with an actuarial impact to the System.

**2013 Legislative Session**

No legislation enacted with an actuarial impact to the System.

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

### I. Valuation Date

The valuation date is June 30th of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

### II. Actuarial Cost Method

Because the employer contribution rate is set by statute, the actuarial valuation is used to determine the number of years required to amortize the Unfunded Actuarial Accrued Liability (UAAL), or the funding period. It is also used to calculate the Annual Required Contribution (ARC) as defined by GASB 25.

The actuarial valuation uses the Entry Age actuarial cost method. Under this method, the first step is to determine the contribution rate (level as a percentage of pay) required to provide the benefits of the average new member, or the normal cost rate. The normal cost rate consists of two pieces: (i) the member's contribution rate, and (ii) the remaining portion of the normal cost rate which is the employer's normal cost rate.

The total normal cost is determined by dividing the present value of future benefits for a hypothetical group of new members by the present value of their future pay. In projecting the benefits for this group, all scheduled changes to provisions and member contribution rates are included. The hypothetical group of new entrants was reset in the 2010 experience study, based on actual new members joining during FY 2005 through FY 2009.

The UAAL is the liability for future benefits which is in excess of (i) the actuarial value of assets, and (ii) the present value of future normal costs. The employer contribution provided in excess of the employer normal cost is applied to amortize the UAAL.

The funding period is calculated as the number of years required to fully amortize the UAAL, assuming that: (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, and (e) employer and State contributions will remain the same percentage of payroll as projected for the current fiscal year.

The Entry Age actuarial cost method is an "immediate gain" method (i.e., experience gains and losses are separately identified as part of the UAAL). However, they are amortized over the same period applied to all other components of the UAAL.

The actuarial valuation also determines the GASB Annual Required Contribution (ARC). This is the contribution required to pay the normal cost and amortize the UAAL over 30 years as a level percent of pay. The 30-year period applies to all components of the UAAL and is recalculated each year (open amortization method).

III. 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 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.

IV. Actuarial Assumptions

A. Economic Assumptions

1. Investment return: 8.00% per year, net of expenses and compounded annually, composed of an assumed 3.00% inflation rate and a 5.00% net real rate of return.
2. Salary increase rate: A 4.00% wage inflation component, including 3.00% price inflation, plus a service-related component as shown below:

<u>Years of Service</u>	<u>Service-Related Component</u>	<u>Total Salary Increase Rate</u>
(1)	(2)	(3)
0	8.00%	12.00%
1-2	1.50%	5.50%
3-4	1.25%	5.25%
5-11	1.00%	5.00%
12-17	0.75%	4.75%
18-21	0.50%	4.50%
22-24	0.25%	4.25%
25 or more	0.00%	4.00%

3. Payroll growth rate: In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 3.50% per year. This increase rate has no allowance for future membership growth.
4. Future ad hoc cost-of-living increases: None.

B. Demographic Assumptions

1. Mortality rates - after retirement or termination.

- a. Healthy males – RP-2000 Combined Mortality Table for males, projected to the year 2016 using Scale AA, multiplied by 90%, no set back.
- b. Healthy females – RP-2000 Combined Mortality Table for females, projected to the year 2016 using Scale AA, multiplied by 80%, no set back.
- c. Disabled males – RP-2000 Mortality Table for disabled males, multiplied by 75%, no set back.
- d. Disabled females – RP-2000 Mortality Table for disabled females, multiplied by 100%, no set back.

Sample rates are shown below:

Age	Expected Deaths per 100 Lives			
	Healthy Males	Healthy Females	Disabled Males	Disabled Females
(1)	(2)	(3)	(4)	(4)
40	0.09	0.04	1.69	0.75
45	0.11	0.07	1.69	0.75
50	0.14	0.10	2.17	1.15
55	0.24	0.19	2.66	1.65
60	0.47	0.37	3.15	2.18
65	0.91	0.72	3.76	2.80
70	1.57	1.24	4.69	3.76
75	2.72	1.98	6.16	5.22
80	4.93	3.28	8.20	7.23

Mortality Improvement: To account for future mortality improvement, the tables and table multipliers selected above were chosen so that the assumed mortality rates are smaller than the rates observed in the last experience study, covering experience for FY 2005 – FY 2009. The ratio of the actual number of deaths occurring during this period to the expected number based on the selected assumptions was:

- 115% for nondisabled male annuitants
- 120% for nondisabled female annuitants
- 112% for disabled male annuitants
- 130% for disabled female annuitants

2. Mortality rates for active members – RP-2000 Employee Mortality tables, with male rates multiplied by 60% and female rates multiplied by 50%. Sample rates are shown below:

Age	Expected Deaths per 100 Lives	
	Male Members	Female Members
(1)	(2)	(3)
25	0.02	0.01
30	0.03	0.01
35	0.05	0.02
40	0.06	0.04
45	0.09	0.06
50	0.13	0.08
55	0.18	0.13
60	0.29	0.20
65	0.45	0.29

No future improvement was assumed for pre-retirement mortality, since this would not have a material effect on the liabilities or costs.

3. Disability rates - Based on 2010 Experience Study, males and females separate. Sample rates are shown below:

Age	Expected Disabilities Occurring per 100 Lives	
	Male Members	Female Members
(1)	(2)	(3)
25	0.025	0.023
30	0.025	0.023
35	0.035	0.045
40	0.065	0.112
45	0.100	0.180
50	0.300	0.270
55	0.450	0.378
60	0.175	0.378
65	0.000	0.000

Disability rates are applied only for members with 10 or more years of service, since rates were developed based on exposure for this group.

4. Termination Rates - Separate male and female rates, based solely on the member's service, developed from the 2010 Experience Study. Rates reflect terminations for causes other than death, disability or retirement. Sample rates are shown below:

Expected Terminations per 100 Lives		
Credited Service (Years)	Males	Females
(1)	(2)	(3)
0	30.00	24.00
1	14.00	12.00
2	12.50	10.50
3	11.00	9.00
4	9.50	8.25
5	8.50	7.50
6	7.50	6.75
7	6.75	6.00
8	6.00	5.25
9	5.25	4.50
10	4.75	4.00
11	4.50	3.50
12	4.00	3.25
13	3.75	3.00
14	3.50	2.75
15	3.25	2.50
16	3.00	2.25
17	2.75	2.00
18	2.50	1.75
19	2.25	1.50
20	2.00	1.40
21	1.75	1.30
22	1.50	1.20
23	1.25	1.10
24	1.00	1.00
25 or more	0.00	0.00

Termination rates are not applied to a member who is eligible for a retirement benefit (reduced or unreduced).

5. Retirement rates - Separate male and female rates, based on age, developed from the 2010 Experience Study. Sample rates are shown below:

Expected Retirements per 100 Lives						
Age	Unreduced Retirement				Reduced Retirement	
	Males		Females		Males	Females
	Rule of 80	Rule of 90	Rule of 80	Rule of 90		
Under 50	0.0	0.0	0.0	0.0	0.0	0.0
50	12.0	19.5	12.5	20.0	0.0	0.0
51	12.0	19.5	12.5	20.0	0.0	0.0
52	12.0	19.5	12.5	20.0	0.0	0.0
53	12.0	19.5	12.5	20.0	0.0	0.0
54	12.0	19.5	12.5	20.0	0.0	0.0
55	12.0	19.5	12.5	20.0	1.0	1.5
56	12.0	19.5	12.5	20.0	1.8	2.0
57	12.0	22.0	12.5	22.5	2.0	2.3
58	12.0	22.0	12.5	22.5	2.3	2.5
59	12.0	22.0	12.5	22.5	2.5	2.8
60	12.0	22.0	15.0	25.0	2.8	3.0
61	12.0	22.0	18.0	28.0	3.0	3.5
62	20.0	30.0	25.0	35.0	10.0	10.0
63	18.0	18.0	18.0	18.0	7.5	7.5
64	16.0	16.0	16.0	16.0	7.5	7.5
65	20.0	20.0	25.0	25.0		
66	20.0	20.0	22.5	22.5		
67	20.0	20.0	22.5	22.5		
68	20.0	20.0	22.5	22.5		
69	20.0	20.0	22.5	22.5		
70	20.0	20.0	22.5	22.5		
71	20.0	20.0	22.5	22.5		
72	20.0	20.0	22.5	22.5		
73	20.0	20.0	22.5	22.5		
74	20.0	20.0	22.5	22.5		
75 and over	100.0	100.0	100.0	100.0		

The retirement assumption was further modified for members hired after November 1, 2011. Affected members who would have been assumed to retire prior to age 60 under the above schedule are assumed to retire when first eligible for an unreduced benefit.

C. Other Assumptions

1. Percent married: 80% of employees are assumed to be married.
2. Age difference: Males are assumed to be three years older than females.
3. Percent electing annuity on death (when eligible): All of the spouses of married participants who die after becoming eligible for a retirement benefit are assumed to elect an annuity, in lieu of the \$18,000 lump sum and refund.
4. Percent electing deferred termination benefit: vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.
5. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at age 62 (age 65 if hired on or after November 1, 2011).
6. Administrative expenses: The assumed investment return rate represents the anticipated net return after payment of all investment and administrative expenses.
7. Supplemental medical insurance: All members, whether currently active, inactive, or retired, are assumed to be eligible to receive the supplemental insurance benefit, if they have at least 10 years of service credit at retirement.
8. Members who retire with at least 24 years of credited service are assumed to have 120 days of unused sick leave for which they will receive one year of service credit. This assumption only applies to reduced and unreduced retirement.
9. No assumption was made that current active members employed by the comprehensive universities will elect to transfer out of OTRS.
10. Reemployment, purchase of service, transfers: No recognition is made of (i) future member reimbursements upon reemployment, (ii) future purchase of additional service, or (iii) special transfer provisions.
11. For EESIP eligible employees, if the refund amount to be paid exceeds the actuarial present value of the additional benefit, then we assume the member does not elect the enhanced benefit.
12. Decrement timing: Decrements of all types are assumed to occur mid-year.

V. Participant Data

Participant data was supplied on an electronic file for (i) active members, (ii) inactive vested members who are entitled to a future deferred benefit, (iii) inactive nonvested members who are entitled to a refund of their employee contributions, and in some cases a portion of the accumulated interest, and (iv) members and beneficiaries receiving benefits.

The data for active and inactive, non-retired members included date of birth, date of hire, gender, years of service, salary, employee contributions and accumulated interest on employee contributions. The data also included a code to indicate whether the employee had elected to make contributions on salary above \$25,000, and a code indicating the type of employer (comprehensive university, other college or university, or other employer). For retired members and beneficiaries, the data included date of birth, gender, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement, and a form of payment code.

Individual member contributions for the 12 months prior to the valuation date were used to determine the actual salary for plan members in the prior plan year. The valuation assumptions for salary increases were used to determine the projected salary for the current plan year. Annualized salary for new members is based on the salary for the same hypothetical group of new members described in Section II, above. Additionally, contributing members were assumed to accrue one additional year of service between the end of the prior employment year and the valuation date.

Additional assumptions were made to correct for missing, bad, or inconsistent data. These had no material impact on the results presented.

Some inactive, nonvested employees who are entitled to a refund are not included in the data, but a liability for their refund is included instead in the Suspense Fund, which is included in the liability.

VI. Dates of Adoption of Assumptions and Methods

Generally, the actuarial assumptions and methods were developed from the 2010 experience study, and were adopted by the Board of Trustees in September 2010 and first reflected in this actuarial valuation. The adopted assumptions were recommended by the actuary. Some assumptions were left unchanged from the prior experience study in 2005, including the investment return rate, the inflation and payroll growth rates, and the male disability rates.

Since the June 30, 2004 valuation, there has been an assumption that future ad hoc cost-of-living increases would be granted from time to time, without additional funding. The initial assumption was that these would average 1.00% per year. Effective July 1, 2008, the assumption was modified from 1.00% to 2.00% per year. Because of the enactment of HB 2132 in 2011, this assumption was eliminated effective with the June 30, 2011 actuarial valuation.

## GLOSSARY

**Actuarial Accrued Liability (AAL):** That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of Future Plan Benefits which is not provided for by future Normal Costs. It is equal to the Actuarial Present Value of Future Plan Benefits minus the actuarial present value of future Normal Costs.

**Actuarial Assumptions:** Assumptions as to future experience under the Fund. These include assumptions about the occurrence of future events affecting costs or liabilities, such as:

- mortality, withdrawal, disablement, and retirement;
- future increases in salary;
- future rates of investment earnings and future investment and administrative expenses;
- characteristics of members not specified in the data, such as marital status;
- characteristics of future members;
- future elections made by members; and
- other relevant items.

**Actuarial Cost Method or Funding Method:** A procedure for allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability. These items are used to determine the ARC.

**Actuarial Gain or Actuarial Loss:** A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., the Fund's assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results that produce actuarial liabilities which are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.

**Actuarially Equivalent:** Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.

**Actuarial Present Value (APV):** The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:

- a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.),

- b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
- c. discounted according to an assumed rate (or rates) of return to reflect the time value of money.

**Actuarial Present Value of Future Plan Benefits:** The Actuarial Present Value of those benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members either entitled to a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would be provide sufficient assets to pay all projected benefits and expenses when due.

**Actuarial Valuation:** The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB 25, such as the funded ratio and the ARC.

**Actuarial Value of Assets or Valuation Assets:** The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly actuaries use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ARC.

**Actuarially Determined:** Values which have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.

**Amortization Method:** A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.

**Amortization Payment:** That portion of the pension plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

**Annual Required Contribution (ARC):** The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under GASB 25. The ARC consists of the Employer Normal Cost and the Amortization Payment

**Closed Amortization Period:** A specific number of years that is counted down by one each year and therefore declines to zero with the passage of time. For example if the amortization period is initially

set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Funding Period and Open Amortization Period.

**Decrements:** Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or termination.

**Defined Benefit Plan:** A retirement plan that is not a Defined Contribution Plan. Typically a defined benefit plan is one in which benefits are defined by a formula applied to the member's compensation and/or years of service.

**Defined Contribution Plan:** A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, and the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.

**Employer Normal Cost:** The portion of the Normal Cost to be paid by the employers. This is equal to the Normal Cost less expected member contributions.

**Experience Study:** A periodic review and analysis of the actual experience of the Fund which may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.

**Funded Ratio:** The ratio of the actuarial value of assets (AVA) to the actuarial accrued liability (AAL). Plans sometimes calculate a market funded ratio, using the market value of assets (MVA), rather than the AVA, although GASB 25 reporting requires the use of the AVA.

**Funding Period or Amortization Period:** The term "Funding Period" is used in two ways. In the first sense, it is the period used in calculating the Amortization Payment as a component of the ARC. This funding period is chosen by the Board of Trustees. In the second sense, it is a calculated item: the number of years in the future that will theoretically be required to amortize (i.e., pay off or eliminate) the Unfunded Actuarial Accrued Liability, based on the statutory employer contribution rate, and assuming no future actuarial gains or losses.

**GASB:** Governmental Accounting Standards Board.

**GASB 25 and GASB 27:** Governmental Accounting Standards Board Statements No. 25 and No. 27. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 27 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 25 sets the rules for the systems themselves.

**Normal Cost:** That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits which are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated. Under the

entry age normal cost method, the Normal Cost is intended to be the level cost (when expressed as a percentage of pay) needed to fund the benefits of a member from hire until ultimate termination, death, disability or retirement.

**Open Amortization Period:** An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.

**Unfunded Actuarial Accrued Liability:** The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus.

**Valuation Date or Actuarial Valuation Date:** The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date.

## **REPORT OF LEGAL COUNSEL**

### **Teachers' Retirement System of Oklahoma 3rd Calendar Quarter, 2013**

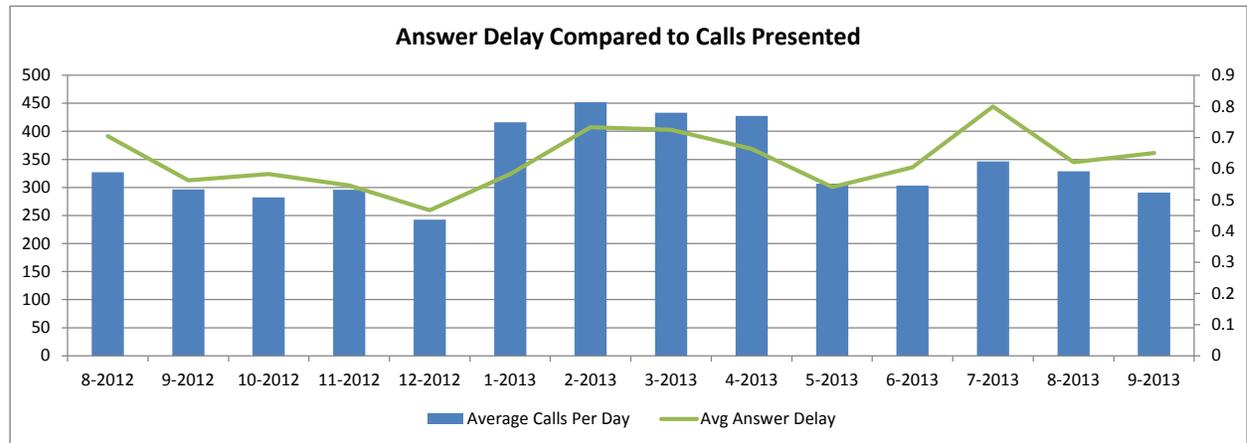
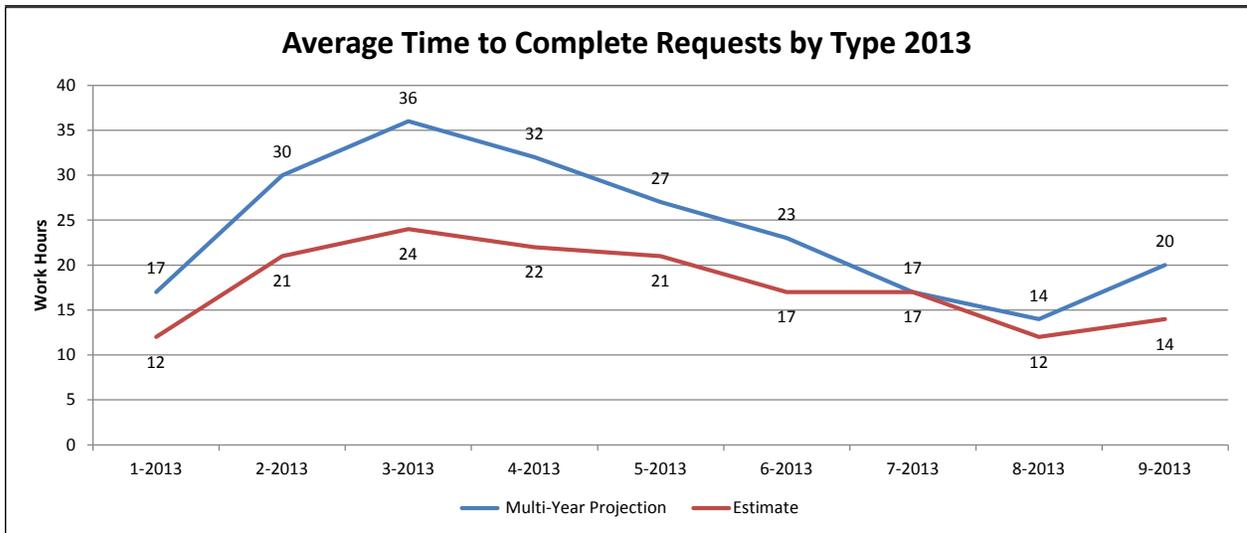
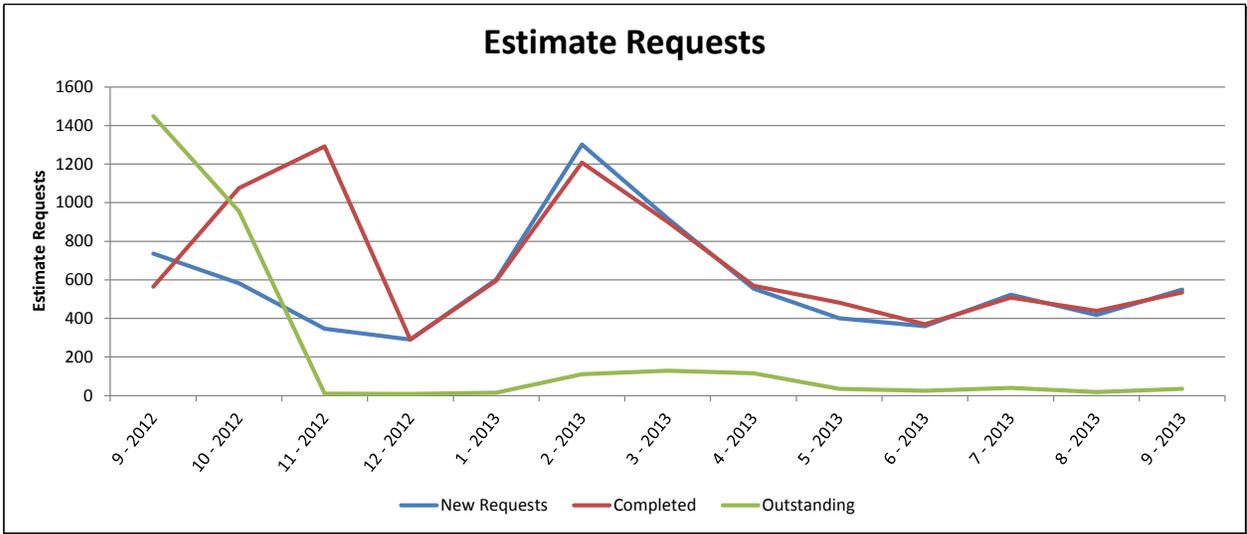
#### **LITIGATION**

Currently, there is no pending litigation. All securities litigation cases wherein OTRS held Lead Plaintiff or co-lead plaintiff status, pursuant to the Private Securities Litigation Reform Act (PSLRA), have concluded or settled.

#### **ADMINISTRATIVE**

An administrative hearing is scheduled for November 15, 2013 at 9:00am. The Hearing Officer will hear the matter, take the matter under advisement, and will issue a written Findings of Fact and Recommendation for the Board's consideration, pursuant to O.A.C. 715:1-1-10.

There is a grievance that will be scheduled for an administrative hearing by the end of the year. There are four (4) pending grievances that will likely proceed to the administrative hearing phase.





# OKLAHOMA TEACHERS RETIREMENT SYSTEM

Monthly Retirement Status Report - October 2013

<b>New Retirements</b>	<u>Count</u>	<u>Benefit Total</u>
Type		
Disability	5	\$5,204.16
Normal	<u>129</u>	<u>\$204,967.67</u>
Total	<u>134</u>	<u>\$210,171.83</u>
<b>Terminated Retirements</b>	<b>23</b>	<b><u>\$30,533.90</u></b>
<b>Net Change</b>	<b>111</b>	<b><u>\$179,637.93</u></b>

**NORMAL RETIREMENTS**

**10/1/2013**

<b>Client #</b>	<b>Client Name</b>			<b>Estimate Ret. Date</b>	<b>Retirement Number</b>	<b>Benefit</b>
Q0188243	ERIC	M	ABBS	10/1/2013	099171	\$1,915.76
Q0204920	DEBRA	S	ALLBERY	10/1/2013	099172	\$2,231.23
Q0220790	VICKI	C	ALMON	10/1/2013	099173	\$912.47
Q0048147	DIANNA		ANDERSON	10/1/2013	099174	\$706.74
Q0085198	HOLLI	M	ANDREWS	10/1/2013	099175	\$1,424.45
Q0201492	HOWARD	L	BEARD	10/1/2013	099176	\$1,396.24
Q0222442	MARILYN	H	BEDFORD	10/1/2013	099140	\$1,821.47
Q0182842	DONNA	G	BLACKBURN	10/1/2013	099177	\$1,393.01
Q0159236	JOHNNY	R	BLUE	10/1/2013	099178	\$1,349.38
Q0225915	DIANE	J	BOLT	10/1/2013	099179	\$482.08
Q0143277	PATRICIA	C	BRALEY	10/1/2013	099180	\$362.45
Q0014329	MARLA	G	BROWN	10/1/2013	099181	\$334.98
Q0142570	CAROLYN	A	BURRAGE	10/1/2013	099182	\$4,338.28
Q0253882	DARLEEN	J	CAMPBELL	10/1/2013	099183	\$669.23
Q0147427	DEBRA	A	CAMPBELL	10/1/2013	099184	\$1,755.15
Q0203326	REGENIA	M	CARROLL	10/1/2013	099185	\$1,912.56
Q0064928	LINDA	L	CARTER	10/1/2013	099186	\$822.14
Q0008797	MICHAEL	A	CATERINA	10/1/2013	099187	\$416.67
Q0243687	MARY	L	CAYTON	10/1/2013	099163	\$239.35
Q0062731	CAROLYN	L	COOPER	10/1/2013	099188	\$660.68
Q0021506	LINDA	J	COOPER	10/1/2013	099189	\$1,635.12
Q0200392	JANITA	C	COULSON	10/1/2013	099190	\$2,452.60
Q0241168	JOLIE	R	DENNIS	10/1/2013	099191	\$499.11
Q0240872	LARRY	F	DEVANE	10/1/2013	099192	\$7,820.15
Q0083982	WALTER	A	DREW	10/1/2013	099193	\$1,881.99
Q0155510	SHIRLEY		ECHOLS	10/1/2013	099136	\$98.49
Q0083876	SUSAN	E	EDWARDS	10/1/2013	099194	\$1,378.41
Q0202881	MARY	S	FLORES	10/1/2013	099131	\$1,581.64
Q0144792	BARRY	N	FLOYD	10/1/2013	099195	\$1,799.18
Q0019468	DOUGLAS	H	FOOR	10/1/2013	099196	\$1,093.03
Q0124656	RICKIE	C	FOREMAN	10/1/2013	099198	\$812.12
Q0124277	WILLIAM		GAGE	10/1/2013	099146	\$3,612.22
Q0089371	RECIA	F	GARCIA	10/1/2013	099199	\$2,880.41
Q0276565	MARY	L	GATES	10/1/2013	099137	\$296.60
Q0103274	MARY	M	GEORGE	10/1/2013	099130	\$1,951.73
Q0104332	PHILLIP	P	GILLHAM	10/1/2013	099200	\$1,592.71
Q0087298	RITA	A	GILLHAM	10/1/2013	099201	\$1,031.15
Q0066413	REBECCA	E	HAMILTON	10/1/2013	099138	\$1,364.26
Q0122931	DIANNA	J	HAMILTON	10/1/2013	099202	\$373.93
Q0085066	CHRISTENA	S	HARRIS	10/1/2013	099108	\$527.19
Q0260896	GREGORY		HARRIS	10/1/2013	099158	\$886.70
Q0088129	MICHELE	E	HART	10/1/2013	099152	\$2,190.47
Q0128204	DAVID	E	HART	10/1/2013	099156	\$2,109.96
Q0203847	PEGGY	S	HARVEY	10/1/2013	099203	\$2,101.64
Q0203249	JOANIE	D	HEAD	10/1/2013	099204	\$2,999.59
Q0044657	CAROL	A	HEALY	10/1/2013	099109	\$2,938.39
Q0016443	LINDA	C	HENDERSON	10/1/2013	099151	\$1,328.57
Q0165088	PHYLLIS	R	HENSLEY	10/1/2013	099205	\$2,313.11

Q0290458	DAVID	C	HIEBERT	10/1/2013	099110	\$644.33
Q0015243	CHERYL	A	HILL	10/1/2013	099111	\$518.98
Q0166649	LENORIA		HOBBS	10/1/2013	099127	\$1,837.00
Q0012445	FREDRICK	H	HOCKERT	10/1/2013	099206	\$613.50
Q0013779	LINDA	B	HOUCK	10/1/2013	099134	\$2,189.46
Q0125033	CAROLYN	S	HUCKLEBY	10/1/2013	099207	\$948.29
Q0206338	TERESA	J	HUDSON	10/1/2013	099208	\$2,100.27
Q0048227	TERESA	J	HULSIZER	10/1/2013	099209	\$1,205.41
Q0200657	JERALD		HYMAN	10/1/2013	099139	\$2,870.86
Q0284890	VICKIE	G	JACKSON	10/1/2013	099122	\$522.88
Q0005754	EUGENE	M	JOHNSON	10/1/2013	099153	\$1,163.33
Q0201083	JANNA	L	JOHNSTON	10/1/2013	099112	\$1,096.67
Q0282807	ANNETTE	M	JONES	10/1/2013	099141	\$297.97
Q0066367	ROGER	M	JONES	10/1/2013	099162	\$3,220.10
Q0051032	MARIONETTE		JUMP	10/1/2013	099210	\$1,646.84
Q0317212	JUDITH	A	KASTNER	10/1/2013	099133	\$475.15
Q0285288	ALVIN	K	KEESE	10/1/2013	099113	\$554.22
Q0016895	DEBORAH	A	KENNEY	10/1/2013	099154	\$689.07
Q0202919	RICHARD	H	KILLGORE	10/1/2013	099132	\$2,907.63
Q0089331	KRISTI	A	KRETCHMAR	10/1/2013	099245	\$2,407.07
Q0089083	CAROL	L	LEMONS	10/1/2013	099121	\$2,058.85
Q0164821	PATRICIA	E	LOVELL	10/1/2013	099119	\$2,703.04
Q0029002	RONALD	E	MASTERS	10/1/2013	099123	\$640.53
Q0165403	JUANETTE	K	MCCLURE	10/1/2013	099129	\$1,143.73
Q0085987	HELENA	L	MCCOY	10/1/2013	099155	\$1,163.03
Q0087917	SIDNEY	L	MCDOWELL	10/1/2013	099159	\$1,487.97
Q0204018	EILEEN	D	MCROY	10/1/2013	099211	\$2,121.92
Q0261290	MELISSA		MIKISH	10/1/2013	099142	\$819.13
Q0038325	PAMELA		MILLER	10/1/2013	099124	\$3,954.51
Q0240182	BONNIE	C	MILLER	10/1/2013	099160	\$1,412.85
Q0125346	DEBORAH	G	MILLER	10/1/2013	099212	\$1,682.11
Q0066280	SHARON	R	MOODY	10/1/2013	099149	\$1,811.10
Q0181340	BECKY	J	MOUNGER	10/1/2013	099213	\$1,855.55
Q0051926	JUDY		NEAGLE	10/1/2013	099143	\$1,580.12
Q0261728	PHUONG	K	NGUYEN	10/1/2013	099214	\$485.35
Q0289650	DRIEANNA	P	NUNLEY	10/1/2013	099215	\$445.56
Q0239950	SHERRY	L	PACK	10/1/2013	099148	\$1,186.03
Q0031625	GLENN	L	PATTERSON	10/1/2013	099157	\$2,380.45
Q0017788	ANNE	W	PERRINE	10/1/2013	099222	\$559.07
Q0124446	VALORIE		PITMAN	10/1/2013	099145	\$1,693.35
Q0013106	JUDITH	V	POMFRET	10/1/2013	099223	\$2,242.25
Q0144122	JO	A	POTTER	10/1/2013	099224	\$431.19
Q0254381	HAROLD	L	PRITCHARD	10/1/2013	099147	\$988.81
Q0236480	REBECCA	J	RACKLEY	10/1/2013	099225	\$2,200.62
Q0064874	CYNTHIA	A	RAMSEY	10/1/2013	099226	\$2,167.66
Q0068103	RANDY	D	RANDLEMAN	10/1/2013	099227	\$2,792.41
Q0143405	EDWIN	R	REAVIS	10/1/2013	099135	\$531.60
Q0125894	GLENDA	N	RENFRO	10/1/2013	099228	\$2,871.53
Q0146233	DAVID		RICHEL	10/1/2013	099125	\$1,780.56
Q0072134	LISA		ROGERS	10/1/2013	099229	\$2,098.60
Q0290290	DAVID	A	ROMER	10/1/2013	099230	\$945.97
Q0048678	FAYE		ROSS	10/1/2013	099231	\$1,492.63
Q0016088	ROCCO	J	RUSSOMANO	10/1/2013	099232	\$291.46
Q0142776	JANE		SALE	10/1/2013	099233	\$403.16







*Teachers' Retirement System of Oklahoma  
Cash Flow Report - Finance Division  
September 30, 2013*

**Board Meeting October 23, 2013**

<i>Cash Basis</i>	September 2012	September 2013		
<i>Monthly Contributions:</i>	<u>Fiscal Year 2013</u>	<u>Fiscal Year 2014</u>	<u>\$ Change</u>	<u>% Change</u>
Member Deposits	\$17,413,346.94	\$22,945,442.29	\$5,532,095.35	31.77%
Employer Contributions	27,989,716.89	27,854,175.75	(135,541.14)	-0.48%
State Revenue	<u>20,636,337.83</u>	<u>18,633,062.54</u>	<u>(2,003,275.29)</u>	<u>-9.71%</u>
Total Retirement Receipts	66,039,401.66	69,432,680.58	3,393,278.92	5.14%
<i>Monthly Distributions:</i>				
Retirement Benefits	22,277,419.93	21,391,237.27	(886,182.66)	-3.98%
Withdrawals and Death Benefits	<u>6,221,971.23</u>	<u>5,839,267.38</u>	<u>(382,703.85)</u>	<u>-6.15%</u>
Total Benefit Payments	<u>28,499,391.16</u>	<u>27,230,504.65</u>	<u>(1,268,886.51)</u>	<u>-4.45%</u>
Net (Receipts - Payments)	<u>\$37,540,010.50</u>	<u>\$42,202,175.93</u>	<u>\$4,662,165.43</u>	<u>12.42%</u>
<i>Year to Date Contributions:</i>	Year to Date	Year to Date		
	<u>Fiscal Year 2013</u>	<u>Fiscal Year 2014</u>	<u>\$ Change</u>	<u>% Change</u>
Member Deposits	\$62,660,042.28	\$61,655,135.40	(\$1,004,906.88)	-1.60%
Employer Contributions	91,430,379.09	78,923,531.34	(12,506,847.75)	-13.68%
State Revenue	<u>71,807,017.19</u>	<u>70,199,000.75</u>	<u>(1,608,016.44)</u>	<u>-2.24%</u>
Total Retirement Receipts	225,897,438.56	210,777,667.49	(15,119,771.07)	-6.69%
<i>Year to Date Distributions:</i>				
Retirement Benefits	213,708,833.09	221,481,384.86	7,772,551.77	3.64%
Withdrawals and Death Benefits	<u>14,426,240.70</u>	<u>13,710,621.46</u>	<u>(715,619.24)</u>	<u>-4.96%</u>
Total Benefit Payments	<u>228,135,073.79</u>	<u>235,192,006.32</u>	<u>7,056,932.53</u>	<u>3.09%</u>
Net (Receipts - Payments)	<u>(\$2,237,635.23)</u>	<u>(\$24,414,338.83)</u>	<u>(\$22,176,703.60)</u>	<u>991.08%</u>



**SCHEDULE I**  
**Comparison of Actual Expenditures Fiscal Year 2013 and Fiscal Year 2014**  
**3 Month Year to Date Comparison**

<b>Object of Expenditure</b>	<b>FY-2013 YTD Actual Expenditures 9/30/2012</b>	<b>FY-2014 YTD Actual Expenditures 9/30/2013</b>	<b>Increase (Decrease) Amount</b>	<b>Increase (Decrease) Percentage</b>
<b>Personal Services</b>				
Salary and Longevity Pay Expenses	507,590	495,385	(12,205)	-2.4%
Taxes, Benefits, and Other Expenses	241,913	231,544	(10,369)	-4.3%
<b>Subtotal Personal Services</b>	<b>749,503</b>	<b>726,929</b>	<b>(22,574)</b>	<b>-3.0%</b>
<b>Professional Services</b>				
Investment Manager Expenses	0	0	0	0.0%
Investment Consultant Expenses	117,000	175,500	58,500	50.0%
Investment Custodian Expenses	0	0	0	0.0%
Pension Commission Expenses	0	0	0	0.0%
<b>Subtotal Investment Expenses</b>	<b>117,000</b>	<b>175,500</b>	<b>58,500</b>	<b>50.0%</b>
Legal Services - Special Projects	0	0	0	0.0%
Legal Services - Attorney General	13,516	15,246	1,730	12.8%
Administrative Hearings	0	0	0	0.0%
Auditing Services	19,000	10,791	(8,209)	-43.2%
Actuarial Services	0	14,168	14,168	100.0%
Medical Hearings	2,400	1,800	(600)	-25.0%
Management Consultant	12,733	10,666	(2,067)	-16.2%
Marketing Consultant	6,300	3,694	(2,606)	-41.4%
Miscellaneous Services	1,858	1,060	(798)	-42.9%
<b>Subtotal Professional Services</b>	<b>55,807</b>	<b>57,425</b>	<b>1,618</b>	<b>2.9%</b>
<b>Subtotal Professional Services</b>	<b>172,807</b>	<b>232,925</b>	<b>60,118</b>	<b>34.8%</b>
<b>Travel and Per Diem Expenses</b>				
Non-Employee Travel Expenses	13,552	10,372	(3,180)	-23.5%
Employee Training	2,375	2,005	(370)	-15.6%
Employee Travel Expenses	1,056	6,106	5,050	478.2%
<b>Subtotal Travel and Per Diem Expenses</b>	<b>16,983</b>	<b>18,483</b>	<b>1,500</b>	<b>8.8%</b>
<b>Administrative Expenses</b>				
Postage	10,034	4,348	(5,686)	-56.7%
Telecommunications Services	5,955	3,824	(2,131)	-35.8%
Printing and Binding Contracts	0	1,191	1,191	100.0%
Informational Services	7,253	7,986	733	10.1%
Rent and Maintenance	42,097	53,522	11,425	27.1%
Office Supplies	2,296	5,314	3,018	131.4%
Buildings and Other Structures Construction and Renovat	0	0	0	0.0%
Miscellaneous Administrative Expenses	2,643	5,146	2,503	94.7%
<b>Subtotal Administrative Expenses</b>	<b>70,278</b>	<b>81,331</b>	<b>11,053</b>	<b>15.7%</b>
<b>Data Processing Expenses</b>				
Professional Services	167,250	162,572	(4,678)	-2.8%
Rent and Maintenance	1,482	1,379	(103)	-7.0%
Office Supplies	0	0	0	0.0%
Equipment -Telecommunications	0	3,026	3,026	0.0%
<b>Subtotal Data Processing Expenses</b>	<b>168,732</b>	<b>166,977</b>	<b>(1,755)</b>	<b>-1.0%</b>
<b>Total Expenses</b>	<b>1,178,304</b>	<b>1,226,645</b>	<b>48,341</b>	<b>4.1%</b>
<b>Totals Investment Expenses Only</b>	<b>117,000</b>	<b>175,500</b>	<b>58,500</b>	<b>50.0%</b>
<b>Totals Data Processing Expenses Only</b>	<b>168,732</b>	<b>166,977</b>	<b>(1,755)</b>	<b>-1.0%</b>
<b>Totals ex Investment and Data Processing Expenses</b>	<b>892,571</b>	<b>884,168</b>	<b>(8,403)</b>	<b>-0.9%</b>



**SCHEDULE II  
Comparison of FY2014 Budget to Actual Expenses  
3 Month Year to Date Comparison**

<b>Object of Expenditure</b>	<b>3 Month FY-2014 YTD Budget</b>	<b>3 Month FY-2014 YTD Actual</b>	<b>Over (Under) Amount</b>	<b>Increase (Decrease) Percentage</b>
<b>Personal Services</b>				
Salary and Longevity Pay	515,982	495,385	(20,597)	-4.0%
Taxes, Benefits, and Other	283,401	231,544	(51,857)	-18.3%
<b>Subtotal Personal Services</b>	<b>799,383</b>	<b>726,929</b>	<b>(72,454)</b>	<b>-9.1%</b>
<b>Professional Services</b>				
Investment Manager	0	0	0	0.0%
Investment Consultant	175,500	175,500	0	0.0%
Investment Custodian	0	0	0	0.0%
Pension Commission	15,000	13,887	(1,113)	-7.4%
<b>Subtotal Investment Expenses</b>	<b>190,500</b>	<b>189,387</b>	<b>(1,113)</b>	<b>-0.6%</b>
Legal Services - Special Projects	12,501	0	(12,501)	-100.0%
Legal Services - Attorney General	13,749	15,246	1,497	10.9%
Administrative Hearings	249	0	(249)	-100.0%
Auditing Services	61,251	10,791	(50,460)	-82.4%
Actuarial Services	37,500	14,168	(23,332)	-62.2%
Medical Hearings	2,499	1,800	(699)	-28.0%
Management Consulting	17,499	10,666	(6,833)	-39.0%
Marketing Consulting	12,501	3,694	(8,807)	-70.5%
Miscellaneous Services	15,063	1,060	(14,003)	-93.0%
<b>Subtotal Professional Services</b>	<b>172,812</b>	<b>57,425</b>	<b>(115,387)</b>	<b>-66.8%</b>
<b>Total Professional Services</b>	<b>363,312</b>	<b>246,812</b>	<b>(116,500)</b>	<b>-32.1%</b>
<b>Travel and Per Diem Expenses</b>				
Non-Employee Travel	12,900	10,372	(2,528)	-19.6%
Employee Training	9,825	2,005	(7,820)	-79.6%
Employee Travel Expenses	24,693	6,106	(18,587)	-75.3%
<b>Subtotal Travel and Per Diem Expenses</b>	<b>47,418</b>	<b>18,483</b>	<b>(28,935)</b>	<b>-61.0%</b>
<b>Administrative Expenses</b>				
Postage	63,750	4,348	(59,402)	-93.2%
Telecommunications Services	9,999	3,824	(6,175)	-61.8%
Printing and Binding Contracts	22,500	1,191	(21,309)	-94.7%
Informational Services	11,250	7,986	(3,264)	-29.0%
Rent and Maintenance	63,225	53,522	(9,703)	-15.3%
Office Supplies	9,099	5,314	(3,785)	-41.6%
Buildings and Other Structures Construction and Renovation	2,499	0	(2,499)	-100.0%
Miscellaneous Administrative Expenses	10,224	5,146	(5,078)	-49.7%
<b>Subtotal Administrative Expenses</b>	<b>192,546</b>	<b>81,331</b>	<b>(111,215)</b>	<b>-57.8%</b>
<b>Data Processing Expenses</b>				
Professional Services	388,749	162,572	(226,177)	-58.2%
Rent and Maintenance	999	1,379	380	38.0%
Office Supplies	5,622	0	(5,622)	-100.0%
Equipment	22,692	3,026	(19,666)	-86.7%
<b>Subtotal Data Processing Expenses</b>	<b>418,062</b>	<b>166,977</b>	<b>(251,085)</b>	<b>-60.1%</b>
<b>Total Expenses</b>	<b>1,820,721</b>	<b>1,240,532</b>	<b>(580,189)</b>	<b>-31.9%</b>
<b>Total Investment Expenses Only</b>	<b>190,500</b>	<b>189,387</b>	<b>(1,113)</b>	<b>-0.6%</b>
<b>Total Data Processing Expenses Only</b>	<b>418,062</b>	<b>166,977</b>	<b>(251,085)</b>	<b>-60.1%</b>
<b>Total except Investment and Data Processing Exp</b>	<b>1,212,159</b>	<b>884,168</b>	<b>(327,991)</b>	<b>-27.1%</b>

### Miscellaneous Professional Services Expenses

	Fiscal Year		Budget
	<u>2013</u>	<u>2014</u>	<u>2014</u>
Background Checks	0	0	250
Retirement Process Consultant	0	0	10,000
Document Destruction	270	582	2,500
Office of Personnel Management	0	0	2,500
Security	0	0	10,000
Business Service Center	1,588	478	35,000
	<b><u>\$1,858</u></b>	<b><u>\$1,060</u></b>	<b><u>\$60,250</u></b>

**Miscellaneous Administrative Expenses Expenses**

	<b>Fiscal Year</b>		<b>Budget</b>
	<b><u>2013</u></b>	<b><u>2014</u></b>	<b><u>2014</u></b>
Bank Service Charges	2,104	2,096	10,000
ERP Systems -PeopleSoft	69	797	5,200
Licenses, Permits, Certificates and Other Rights	0	278	3,000
Membership in Organizations	470	1,975	11,700
Premium Surety and Other Required Bonds	0	0	2,000
Property and Liability Insurance	0	0	8,000
	<b><u>\$2,643</u></b>	<b><u>\$5,146</u></b>	<b><u>\$39,900</u></b>

**Miscellaneous Data Processing Administrative Expenses**

	<b>Fiscal Year</b>		<b>Budget</b>
	<b><u>2013</u></b>	<b><u>2014</u></b>	<b><u>2014</u></b>
Membership in Organizations	0	0	1,000
	<b><u>\$0</u></b>	<b><u>\$0</u></b>	<b><u>\$1,000</u></b>



# OKLAHOMA TEACHERS RETIREMENT SYSTEM

## Information Technology

### Vendor History and Future Proposal

## **Subject:**

MYConsulting Group (MYCG) History and Relationship Overview

## **Purpose:**

Document and summarize genesis of OTRS selection of MYCG

## **History:**

On July 30, 2009, an Internal Audit of OTRS (see Appendix A) found that the Information and Technology department maintained a custom, but significantly outdated, information system that was responsible for every activity in the client life cycle. Additionally, the system was rigid and incapable of significant programming changes to allow for process improvement. Furthermore, the system kept no audit logs of changes, and programmers were capable of manipulating client accounts with no oversight or history.

Therefore, OTRS decided to act on the recommendation of creating an IT Steering Committee to navigate the IT problems, devise solutions, provide accountability, and, ultimately, to design a new Information System.

### **IT Steering Committee:**

The IT Steering Committee determined that the IT department did not have the necessary resources to make significant changes to the information system.

### **Strategic Plan:**

The Internal Audit Department was asked to develop a strategic plan (see Appendix B) for modernizing the IT Department. Most importantly, this plan included a proposal to outsource the development of a new information system.

### **Lack of Standardized Procedures:**

During this period it was discovered that Client Services did not have a standardized training process. This lack of a standardized process allowed for different approaches to the same procedures, which created confusion when attempting to explain how future procedures should be programmed.

### **Rules Committee:**

With the need for a new information system and standardized operating procedures, it was clear OTRS needed a review of the application of its rules and policies before the functional requirements for a new information system could be defined. To resolve these issues, OTRS developed a Rules Committee with a Charter to standardize all of the rules that guided OTRS' internal procedures. The Rules Committee's efforts developed the foundation for defining the functional requirements of the future information system. Examples of the Rules Committee meeting minutes and Charter are located in Appendix C.

### Needs Assessment Team:

OTRS determined that, to successfully outsource the development of an information system, it was necessary to be proactive in determining the needs of each job and thorough in developing the technical functional requirements. The OTRS team developed a comprehensive Needs Assessment document (Appendix D) outlining all of the prevailing functions.

### IT Consultant Contract:

OTRS then looked at the Oklahoma Department of Central Services approved vendor list to find a team capable of assisting in the creation of the Statement of Work to be used in bidding the future development project. The deliverable for this project would be a comprehensive Statement of Work to be used in the Request for Proposal process.

MYConsulting Group was selected for this statement development project because, at the time, they were the only vendor who was qualified to produce the technical writing and provide software development.

MYCG worked from March 15, 2010 to May 15, 2010, reviewing the Needs Assessment documents, the Rules Committee documents, and delivered a Statement of Work (See Appendix E) to be used in bidding the redesign of the information system.

MYCG was paid \$88,200 for the Statement of Work.

### Alice 1.0 - Information System Development Contract:

In June 2010 OTRS received two proposed bids for the information system redesign, MYCG and L-3. After interviews with both, MYCG was selected to design the information system. See Appendix F for Statement of Work. The major tasks required were as follows:

- Creation of an online employer portal to receive employer reports and automated payments
- Migration of legacy data
- Comprehensive review of Statutes and Rules to ensure all procedures were replicable and in accordance with the law
- Development of a workflow system to eliminate the circulation of paper
- Elimination of duplication required in generating estimates
- Delivery of system to be in production on January 1, 2012

MYCG was paid \$1,319,900 for development work under the contract from July 2010 through February 2012.

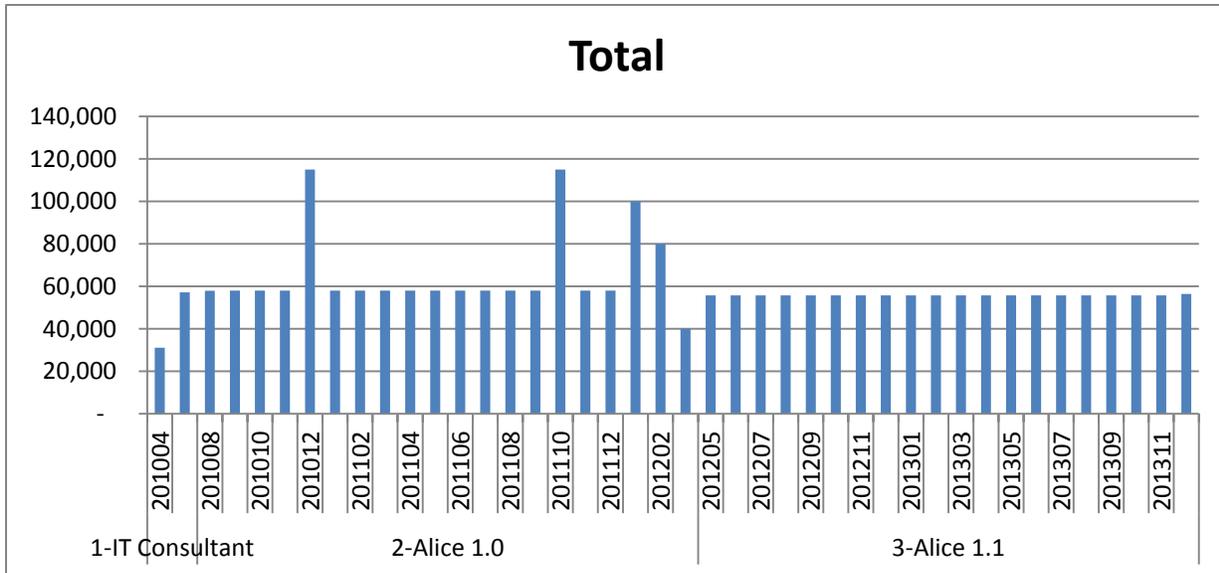
## Alice 1.1 - Information System Development Contract:

OTRS opted to retain MYCG to complete another fiscal year to provide continued IT support (performed over 1,200 unique requests), additional development on employer reporting, and facilitate an automated service credit migration. See Appendix G for Statement of Work. The major tasks required in this contract were the following:

- Comprehensive support for programming needs and continued development
- Compliance with new service credit implementation
- Migration and auto-award service credit to 90,000 active clients
- Development of annual process to award service credit
- Providing information to all interested third parties, external auditors, actuaries, legislators

MYCG has been paid \$947,750 for development work under contract from February 2012 through September 2013 and will receive another \$167,925 for work performed in October and November 2013.

In summary, MYCG has been under contract with OTRS since March 2010 and will have been paid \$2,523,775 when their current contract ends in November 2013.



## **New Proposal – Alice 2.0 Information System Development:**

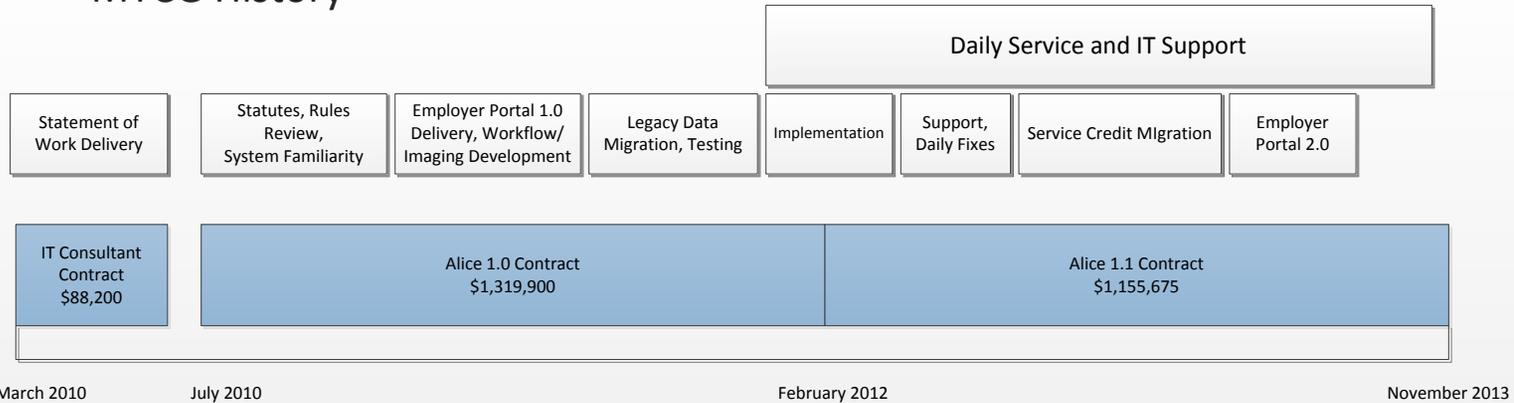
Proposed Contract to begin November 15, 2013 will provide the following:

- Increased levels of technical support
- Comprehensive data cleansing effort to precede delivery of Client Statement
- Comprehensive finance and accounting functionality
- Development and implementation of Client portal
- Capacity to continue re-engineering of major processes

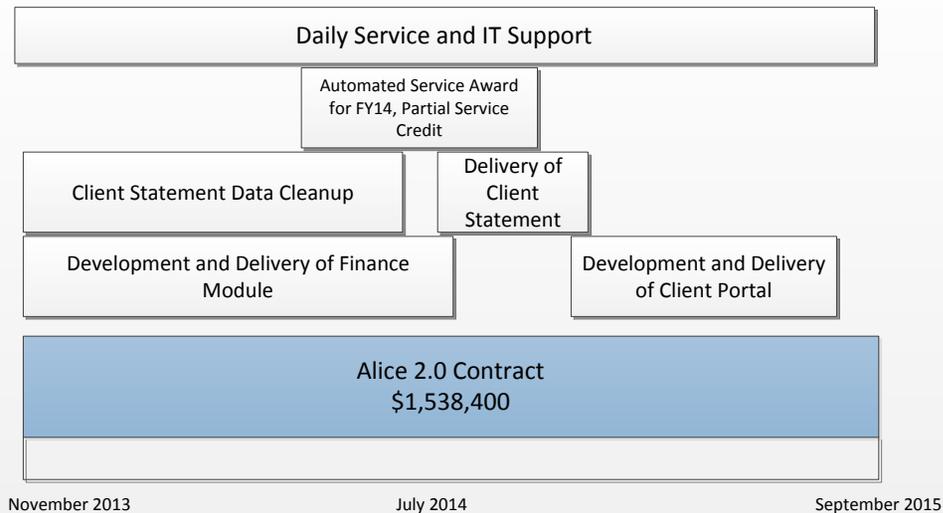
The proposed timeline for this project will be from November 2013 through September 2015 which allows for two more fiscal year starts, which is important when considering the finance module. This allows for a go live date that encompasses the entire FY15 and provides continued support following the closing of FY15 and the opening of FY16.

MYCG has proposed the project to begin November 2013 and extend for the next 23 months through September 15, 2015 for a monthly fee of \$66,900 or a total of \$1,538,400.

## MYCG History



## MYCG Proposal



# **Pension Software System System Augmentation**

**ORIGINAL**

**Submitted to: Oklahoma Teachers Retirement System  
Oliver Hodge Education Building  
2500 N. Lincoln Blvd., 5<sup>th</sup> Floor  
Oklahoma City, OK 73105**

**In Response To: Statement of Work**

**Submitted by: MY Consulting Group  
1500 SW 104<sup>th</sup> St., Ste. 1  
Oklahoma City, Oklahoma 73159  
(405) 606-4080  
[www.myconsultinggroup.com](http://www.myconsultinggroup.com)**

**Date Submitted: October 14, 2013**





October 14, 2013

Oklahoma Teachers Retirement System  
Attn: Mr. Rocky Cooper  
Oliver Hodge Education Building  
2500 North Lincoln Boulevard, 5<sup>th</sup> Floor  
Oklahoma City, Oklahoma 73105

Dear Mr. Cooper:

MY Consulting Group is pleased to submit this response to your Statement of Work seeking our response to develop and implement additional functionalities within the Pension Software System (ALICE) now employed by the Oklahoma Teachers Retirement System (OTRS). We are broadly experienced in the custom design, development, fielding, and management of complex software applications of many types, particularly for State of Oklahoma clients, and we look forward to assisting you.

MY Consulting Group offers its clients a best value solution, which we define as:

- Recruiting (and retaining) the **best IT talent** available in the marketplace. Our consultants work **faster and more efficiently**, giving our clients “more bang for their buck,” and we will never “learn” technology on the client’s dime.
- Offering hands-on project management with frequent status reports, regular client meetings, and a proven track record.
- Local, **hands-on owners** who personally oversee customer service and react quickly to clients’ needs without requiring clients to navigate through layers of corporate bureaucracy.
- **Unmatched ROI.** We understand the responsibilities of government agencies to prudently expend their resources, particularly in times like these, and take our responsibility to be good stewards of your money seriously. Our experienced and efficient personnel will maximize your return on your investment in this project.
- **Integrity.** We’re honest and reliable and hold ourselves, our staff, and our team members to the very highest of ethical standards.
- **Local references and resources.** Many large organizations can boast impressive project histories, but can they provide you with the same IT consultants who performed those projects? Speak to your peers at other Oklahoma agencies and hear about the expertise of the project teams we employ for information technology projects of all types.

MY Consulting Group looks forward to your evaluation of our proposal. If you have any questions or require further information, please do not hesitate to contact me at (405) 205-7689 or via e-mail at [amber@myconsultinggroup.com](mailto:amber@myconsultinggroup.com).

Sincerely,

Amber Mitchell  
President

# PROJECT NARRATIVE

## PROJECT SCOPE

The Oklahoma Teachers Retirement System (OTRS) will be ready to embark upon Phase Three of its Pension Software System upgrade by early November 2013, and recently issued a set of comprehensive and detailed requirements that shall be used for Phase Three.

OTRS desires to continue to use MY Consulting Group (Statewide Contract ITSW1025, *Administrative Services and Application Development and Support* categories information technology staffing services contractor) for Phase Three of its Pension Software System upgrade, due to our recent experience developing and implementing the current OTRS Pension Software System upgrade and our growing familiarity with pension systems in general.

## ASSUMPTIONS

MY Consulting Group has made the following assumptions in order to fully describe the remaining sections of our response. Our response is conditioned on each of these assumptions being correct and may, accordingly, need to be modified in the event one or more of them is not.

- The purchase order required for MY Consulting Group's project team to begin work will be issued such that project work can commence as early as November 4, 2013.
- Project team personnel will work at both OTRS and contractor facilities, with application development to be conducted at contractor facilities.
- OTRS will provide conference/meeting room access, access to organizational personnel, and access to all existing information management systems. OTRS will additionally, as required, coordinate access to required personnel in order to facilitate completion of all required tasks.
- Key OTRS stakeholders and other personnel will be readily available as needed by the project team. Timeframes proposed assume normal absences created by temporary illness and time off, but do not account for other delays.
- Initial application testing of new components and modules will be performed within our corporate environment.
- Costs for tasks and deliverables do not include costs associated with the purchase or licensing of any hardware or software required to host, operate, and maintain the developed system.
- Work required for development and fielding of that required to meet requirements of these tasks will not, aside from development and internal contractor testing, require the use of MYCG or MYCG subcontractor-hosted application, web and/or data storage systems. It will, further, not require the use of third party-hosted application, web and/or data storage systems, third-party data encryption systems, or either MYCG or third party personnel to help ensure the security of information submitted via one or more system web components.
- Results from various assistance tasks (e.g., eliminating requirement for paperwork in all scenarios that do not require original ink, enrollment process redesign) will be assessed upon task completions in order to determine whether results constitute current project requirements, are to be included in the scope of future projects, and/or are to be performed in place of other project requirements.
- OTRS will lead all supporting efforts required to perform finance and accounting tasks (e.g., creation of chart of accounts, assignments of expenditures by divisions, report definitions for the roughly 100 reports to be produced, development of all historical data required for comparative reports that is not already stored within the ALICE database).
- OTRS will lead all efforts to coordinate provision of data feeds from/to, if available and/or allowed, JP Morgan and the State of Oklahoma's PeopleSoft ERP system.

- Maintenance and support of the system, after successful completion of user acceptance testing and delivery of all project deliverables, will be the responsibility of OTRS.

## **PROJECT PHASES**

### Requirements Identification

- Interview key OTRS management, information technology, and division personnel.
- Review, as required, statutory and other written OTRS requirements.
- Identify and document business and management capabilities.
- Identify and document required forms and reports.

### System Augmentation

- Development of new application components.
- Development of user training.

### Testing and Documentation

- Conduct of user testing.
- Development of user documentation.
- Update of technical documentation.
- Delivery of user training.

### Fielding and Turnover

- Delivery of the system, user documentation, technical design documentation, and the final project report.

## **TASKS**

### **CLIENT SERVICES DIVISION**

#### Client Portal - Clients

- Assist OTRS in hosting Client summit to determine what future features provide the most value when considering information sent and optimization of Client Portal. Feedback from Client summit will not constitute new features for the current project, but may be included in the scope of future projects, or items that may be traded out for features in the current project scope.
- Assist in an employer round-table to determine the best way to communicate the information required from employers when a Client terminates or retires.
- Design and develop a web-based portal front end and integrate all data (back end) storage requirements with the existing application database.
- Assist OTRS in redesigning process by which Clients enroll in OTRS to eliminate downstream future work.
- Assist OTRS in reviewing processes in order to eliminate requirement for paperwork in scenarios that do not require original ink.
- Identify data clean-up requirements to be completed by OTRS before deployment of the client portal into a production environment.
- Develop method for Clients to obtain a user name and password to access the Client Portal and ability for OTRS to manage accounts.

- Develop method for Clients to view benefit payment changes through the Client Portal via secure mailbox. Allow all Clients to make changes to their personal contact information through the Client Portal.
- Allow all Clients to view account balance as well as transactions against their account.
- Allow all Clients to view salaries and service credit awarded by year.
- Allow Retired clients to view history of payments made on retirement account.
- Allow Retired clients and those receiving monthly benefits to be able to update their tax withholding and direct deposit information via the Client Portal pending legal approval.
- Give Clients the ability to use personalized read-only data to project retirement scenarios based on hypothetical retirement dates, salary growth and EESIP Wear-Away.
- Give Clients the ability to produce Retirement Benefit Estimates and request a formal Retirement Benefit Estimate via the Client Portal.
- Develop method for OTRS to send Clients messages via a secure mailbox on the Client Portal.
- Develop method for Clients to receive email notification when a new message is available in their Client Portal secure mailbox.
- Develop method for Clients to receive 1099's with cover letter through the Client Portal.
- Provide Client ability to opt in to OTRS correspondence with direction from Koch Communication.

#### Employer Portal – Employers

- Automate the process by which insurance subsidies and information is distributed to employers.
- Redesign process by which insurance premiums are withheld to provide historical information.
- Develop process to deliver outstanding tasks to employers via Employer Portal mailbox. Functionality will be added specifically for the task of historical employment records needing salary verification.
- Develop and implement a new end-of-employment-year reporting format and associated submission and acceptance procedures, to include development and implementation of annual service credit award procedures based, in part, on end-of-employment-year reports.
- Develop method to automatically recalculate member salary/credit for a year when errors are discovered.
- Develop canned reports for employers to easily obtain information concerning historical submissions.

#### Desktop Application – OTRS Employees

- Develop customized Annual Client Statements to be distributed to all Clients who have:
  - Audited member service, with no “verification required” service records.
  - Audited member service, but with one or more “verification required” service records.
  - Unaudited member service.
- Create process by which Employers verify retirement information for use in processing retirements to take place of Form 80 and 82.
- Assist OTRS and Koch Communications in redesigning all documents sent to Clients.

## **FINANCE/ACCOUNTING DIVISION**

The Accounting/Finance package in the OTRS Pension Software System must have a General Ledger System that can be used to produce trial balances, financial statements, and reports that can be used as management tools for the Oklahoma Teachers Retirement System. The system should, if subsequently determined by OTRS, utilize data feeds from JP Morgan and either feeds to/from PeopleSoft to produce some financial data and reduce duplication of effort and error rates that are caused by entering information twice.

### Accounting Requirements

- System shall have a general ledger system.
- System shall produce a Statement of Plan Net Assets.
- System shall produce a Statement of Changes in Plan Net Assets.
- System shall produce all of the reports required by OTRS Actuaries.
- System shall produce all of the reports and charts included in the June 30, 2014 CAFR.
- System shall be able to track expenditures by departments.
- System shall be able to track budgeted amounts vs. actual amounts (Revenues and Expense).
- System shall be able to provide comparative data (year to year).
- System shall be able to produce reports and information required by external auditors.
- System shall have reports and tools to aid in reconciliation of cash accounts.
- System shall be able to warehouse data so reports can be produced for prior dates.
- Daily Feed of all JP Morgan information related to OTRS holdings (Finance).
- Monthly Feed of all audited JP Morgan information related to OTRS holdings (Accounting).
- Benefit Payments (Retirement, Withdraws, Deaths).
- Revenues (School Payments, Class Action Proceeds, Other Revenues).
- Expenditures (Refunds, Insurance, OTRS Share).
- Insurance Totals.
- Tax Withholdings and Payments.

### Additional Reporting Requirements

- Trial Balance – exportable to excel.
- Complete General Ledger – exportable to excel.
- Ability to Print Journal Entries – Journal Entries exportable to excel.
  - Journal Entries should not post if they do not balance (debits=credits).
- Ability to Print/Export reports for a range of general ledger accounts.
- Ability to Print a Schedule of Net Assets.
- Ability to Print a Schedule of Changes in Plan Net Assets.
- Ability to compile demographic/census data on our members and retirees.
- Ability to report/export.
  - reported salaries by school/county
  - reported members by school/county

- Ability to report/export detail contributions for the year with salaries, contributions, and received amounts.
- Ability to report/export the number of contributors/contributions on a monthly basis.
- Ability to report/export the number of retirees on a monthly basis.
- Ability to report/export all reports and graphs required for the annual audit and CAFR.

## **INFORMATION TECHNOLOGY AND OTHER REQUIREMENTS**

- Continue to assist OTRS staff in training and familiarization with ALICE.
- Provide high level of programming service pertaining to corrections and enhancements, to include process improvements and re-engineering, of the current production environment; examples of such improvements during previous project phases include bulk processing of withdrawals, processing re-retirements as separate retirements, regenerating member service records after historical data changes, and changes to projection, hypothetical estimate, intent to retire, and retirement contract packets. Candidate process changes to be addressed during this project phase include, but are not limited to, the following
  - Automatic generation of service credit
  - Review current security roles and assignments to users
  - Review process of retirement reconciliation to provide partially automated solution
  - Review workflow types and routings
  - Review of monthly employer contribution report and validations
  - Include automatic charging of late fees
  - Review CAFR Reports and augment as necessary
  - Provide reports as need to auditors
  - Develop dashboard depiction of data cleanup requirements

## **DELIVERABLES**

### **Phase I—Requirements Identification and System Augmentation**

- A summary project requirements development and work plan, developed and maintained at a level of detail of two to four weeks task duration. The initial Phase I plan will be provided no later than ten working days after project start and will be updated monthly to reflect project progress and changes, if any, to the baseline plan.
- Activity and status reports, no less frequently than monthly, to the OTRS project sponsor and, as required, other OTRS personnel.
- Internally (i.e., developer) tested and working information management system components per requirements identified within Phase I.

### **Phase II—User Testing and Documentation**

- Will be conducted as required throughout the project, in conjunction with deployments of major project components.

### **Phase III—Fielding and Turnover**

- Fully tested and working information management system components per identified requirements.
- A final project report, including summarized project and resource management information.
- Electronic and paper-based copies of user guidelines.
- Electronic and paper-based copies of technical design documentation.

## Period of Performance

This project is projected to start November 4, 2013 and continue for a period of approximately 22 months. Actual timeline for completion will be influenced by availability of OTRS personnel during execution of tasks, and the scheduling of individual project components will be separately coordinated with OTRS.

## Project Staffing

MY Consulting Group proposes to staff this project from among the personnel identified in the following chart. Mr. Renbarger will lead the project, Mr. Burk will serve as the project's technical lead, and Mr. Hornbacher will be assigned to the project on a full-time basis. The remaining project team members will be drawn from those identified below, with the exact composition of the project team at any particular time being determined by the scheduling and execution of project tasks.

<b>Name</b>	<b>Skill Set / Labor Category</b>	<b>Project Hours</b>
Doug Renbarger	Project Manager	1,845
Ryan Burk	Senior Developer	10,330
Ben Hornbacher	Senior Developer	
Kimberly Collins	Senior Developer	
Shane Gilbert	Senior Developer	
Blake Dahlgren	Developer	6,935
Katie Solloway	Developer	

MY Consulting Group understands that OTRS may reject one or more proposed project personnel and, in the event of one or more rejections, will submit alternative resumes for OTRS consideration. As the availability of these personnel depends upon the actual project start date, MY Consulting Group may submit alternative resumes for OTRS consideration. MY Consulting Group further reserves the right to submit alternative resumes for OTRS consideration in the event other circumstances warrant doing so.

## Project Cost

MY Consulting Group proposes this effort as a turnkey project. The proposed cost for this effort is \$1,538,400, and MY Consulting Group proposes that project payments be made in accordance with the following schedule:

<b>Date</b>	<b>Amount</b>
December 13, 2013	\$66,900
January 15, 2014	\$66,900
February 14, 2014	\$66,900
March 14, 2014	\$66,900
April 15, 2014	\$66,900
May 15, 2014	\$66,900
June 13, 2014	\$66,900
July 15, 2014	\$66,900
August 15, 2014	\$66,900
September 15, 2014	\$66,900
October 15, 2014	\$66,900
November 14, 2014	\$66,900
December 15, 2014	\$66,900
January 15, 2015	\$66,900
February 13, 2015	\$66,900
March 13, 2015	\$66,900
April 15, 2015	\$66,900
May 15, 2015	\$66,900
June 15, 2015	\$66,900
July 15, 2015	\$66,900
August 14, 2015	\$66,900
September 15, 2015	\$133,500
	<b>\$1,538,400</b>

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NASRA Winter Conference - DC

Apr-14						
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Aug-14						
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Aug 2-6 - NASRA Annual Conf. - Asheville, NC

Sep-14						
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Oct-14						
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Oct 11-15 - NCTR Annual Conf. - Indianapolis

Nov-14						
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\* Dates Tentative; Subject to Change

Proposed Meeting Dates

Holidays