OKLAHOMA PENSION OVERSIGHT COMMISSION

March 24, 2006

The Honorable Brad Henry
Governor

The Honorable Mike Morgan
President Pro Tempore
Oklahoma State Senate

The Honorable Todd Hiett
Speaker
Oklahoma House of Representatives

Dear Sirs:

Attached is the 2006 Status Report of the Oklahoma State Pension Systems. After careful study of the funding and payout from the state's seven pension systems, the Oklahoma Pension Oversight Commission has concluded that action must be undertaken immediately to address the severe under funded status of the State's pension systems.

The report that follows paints a picture of pension systems in grave need of attention. Without definitive action in the near future, the eventual cost of restoring the systems to financial health may be prohibitively expensive. The Oklahoma Teacher's Retirement System is currently the third worst funded public pension system in the nation. Without action soon, other adverse consequences are likely to occur such as a down grade in the State's bonded indebtedness which will increase the cost of future State bond issues. The only fiscally prudent course of action is to take corrective action without delay.

The answer to the problem is quite simple: more money must be placed into the systems. The complexities come when the details are discussed. We stand ready to assist you in addressing the crisis in the Oklahoma State Pension Systems. If we work together, we can be successful in returning the systems to a position of financial strength.

Respectfully submitted,

Scott Meacham
Chair, Oklahoma Pension Oversight Commission
Oklahoma State Treasurer

OKLAHOMA PENSION OVERSIGHT COMMISSION

Crisis in the Oklahoma State Pension Systems

2006 Status Report
of the
Oklahoma Pension Systems

Submitted to

Governor Brad Henry
Senate President Pro Tempore Mike Morgan
Speaker of the House Todd Hiett

March 24, 2006

Executive Summary

Oklahoma's pension systems are in a state of serious financial crisis. For many years, warnings have been issued, only to be ignored. In the meantime, the problem has grown worse and the financial problems have only accelerated. A crisis state has been reached.

The problem can no longer be ignored. A significant infusion of money is needed before the problem gets any worse. The longer the problem is left unchecked, the more difficult it will be to solve.

The State of Oklahoma's seven pension systems (Oklahoma Public Employees Retirement System, Oklahoma Law Enforcement Retirement System, Uniform Retirement System for Justices and Judges, Department of Wildlife Retirement Plan, Oklahoma Teachers Retirement System, Oklahoma Firefighters' Pension and Retirement System and Oklahoma Police Pension and Retirement System) have overall funding of 60.5 percent. Stated another way, Oklahoma has more than **$10 billion** in current unfunded liabilities in its pensions.

To make matters worse, the funded ratios for each of Oklahoma's seven pension systems are declining. The biggest problem exists with the biggest pension fund – the Teachers Retirement System – where actuaries indicate that four times more money than is currently provided is needed to just keep the fund level from dropping below the current level of 49.5 percent. A similar problem exists at the Public Employees Retirement System where funding needed to keep the unfunded status from worsening is more than $100 million each year.

Some of the systems have begun making more risky than desirable investments. The investment policies of these systems are moving into aggressive, high-volatility investment categories. One such example is the move of the Oklahoma Police Pension and Retirement System into private equity investments which are one of the most volatile major investments classes in which a pension can invest.

If the problem is left unaddressed, the systems will eventually require a cash infusion from the State of staggering proportions to meet current payment obligations. This could result in the need for the State to raise taxes or dramatically reduce funding to vital State programs. The ultimate impact of continued inaction will be borne by citizens of the State of Oklahoma.

State government faces negative impact from the funding crisis much sooner than the general public. Left unchecked, the State's credit rating could be downgraded. The unfunded status of the State's pension systems has become a more and more prominently mentioned concern of the rating agencies in their rating reports. A down grade in the State's bond rating would lead to higher borrowing costs and would siphon off funds that could otherwise be used to fund essential state services.

The simple reason for the funding problems is that more money has been promised to be paid out of the pension systems to retirees than is being placed into them to pay for such retirement benefits. An analysis of employee contributions, employer contributions, direct State revenue, benefits and cost of living increases shows the only area out of line with peer pensions across the nation is direct revenue. In other words, the solution to the problem comes from two possible avenues: increasing direct State revenues and/or other means of increasing funds coming into the system.

The Pension Oversight Commission recommends the Legislature and Governor pursue four programs to begin addressing the funding crisis:

Recommendation 1. Increase State revenues to pension systems;

Recommendation 2. Eliminate or ameliorate the effects of transferable tax credits on the insurance premium tax base;

Recommendation 3. Dedicate a portion of revenues to pension systems; and,

Recommendation 4. Pursue other financing mechanisms, such as pension obligation bonds, to infuse additional money into the systems.

The funding crisis in Oklahoma's pension systems has reached a critical juncture. If Oklahoma's policymakers again choose to take no corrective action, the inevitable result will be untenable financial consequences to the State and its citizens. This report should serve as a call to action as the problem can be solved only with timely decisive action by the legislature and governor.

I. Introduction

The State of Oklahoma currently operates and manages seven pension systems. Four of these systems primarily cover state government employees: the Oklahoma Public Employees Retirement System (OPERS), the Oklahoma Law Enforcement Retirement System (Law), the Uniform Retirement System for Justices and Judges (Judges) and the Department of Wildlife Retirement Plan (Wildlife).

The remaining three systems cover primarily employees of sub-state governments: the Oklahoma Teachers Retirement System (Teachers), the Oklahoma Firefighter's Pension and Retirement System (Fire) and the Oklahoma Police Pension and Retirement System (Police). Table 1 below presents a brief descriptive view of each of these systems.

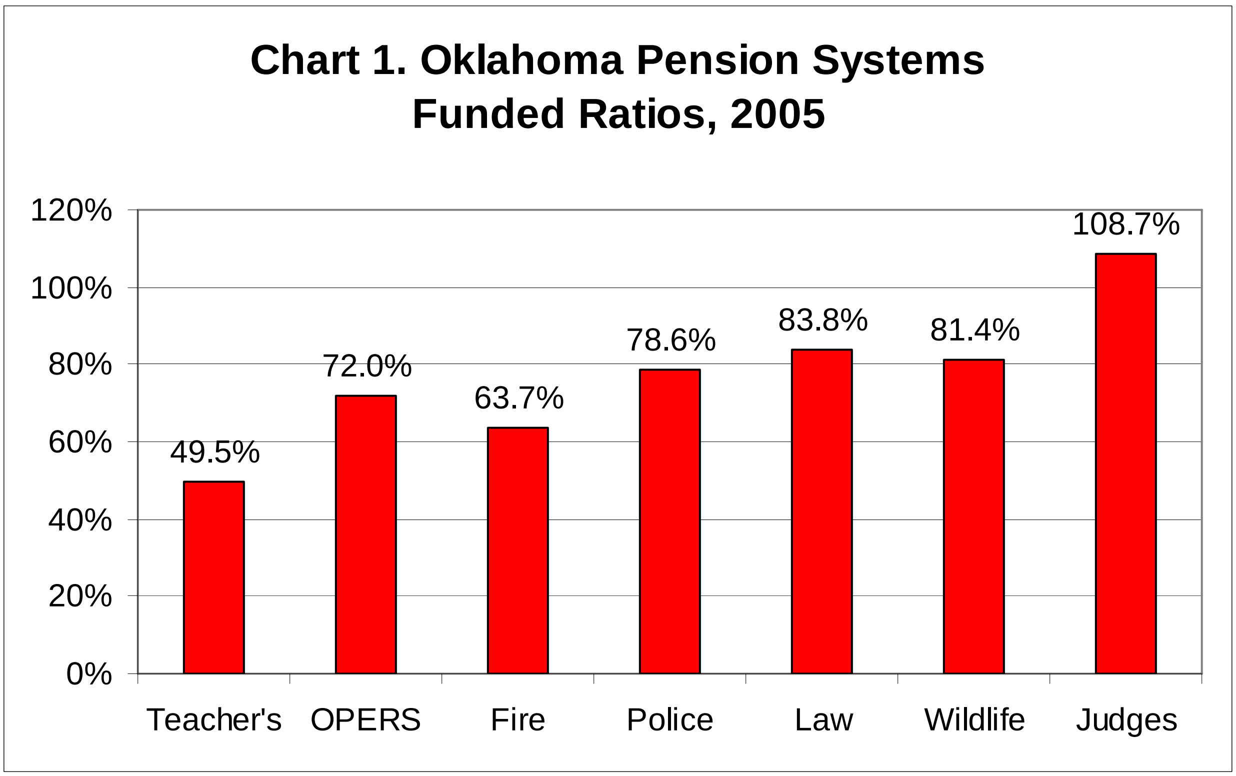
Table 1. Description of Oklahoma State Pension Systems

	Teacher	OPERS	Fire	Police	Law	Judges	Wildlife
Active Members	84,286	43,918	10,780	4,016	1,201	266	322
Retired Members	40,879	23,679	8,184	1,866	1,024	175	158
Benefit Multiplier	2%	2%	2.5%	2.5%	2.5%	4%	2.5%
Normal Retirement	Rule of 80 or 90	Rule of 80 or 90	20 Years	20 Years	20 Years	Rule of 80 or 90	Rule of 85
DROP	N	N	Y	Y	Y	N	N
Employee Contribution	7%	3% - 3.5%	8%	8%	8%	8%	3%
Employer Contribution	7.05%	10%	13%	13%	10%	3%	18%
Total Contributions	14.05%	13.5%	21%	21%	18%	11%	21%
Dedicated State Revenue	Income, Sales Taxes; Lottery		Ins. Prem. Tax	Ins. Prem. Tax	Ins. Prem. Tax		

II. Current Status of Funds

The Oklahoma State Pensions have reached a crisis state. The ratio of actuarial liabilities to actuarial assets has reached alarmingly low levels.

Chart 1 below details the current funded ratios for Oklahoma's seven pension systems. As the chart indicates, the ratios range from a low of 49.5% for Teachers Retirement System to 108.7% for the Uniform Retirement System for Justices and Judges.



At first blush it may appear that there is not much to be greatly concerned about with respect to Oklahoma pension systems. Some pension experts utilize an 80% rule as a simple means of determining whether a system is adequately funded. Based upon this standard, three of Oklahoma's seven systems are adequately funded and another is very close to that threshold.

While the observation that more than half of our systems are close to or above 80% funded is correct, it is misleading to then claim that Oklahoma's pension systems as a whole are not in a state of crisis.

The most significant piece of information omitted from the preceding analysis is the size of the various pension systems. Most notably, Oklahoma's worst funded pension system, the Teachers Retirement System, is also the largest. Teachers has actuarial assets of nearly $7 billion and actuarial liabilities of just over $14 billion, meaning that Teachers has an unfunded liability of over **$7 billion**. The second largest system is the Oklahoma Public Employees system with actuarial assets of nearly $5.5 billion and an unfunded liability of just over **$2 billion**. Therefore, between the two largest systems the State of Oklahoma is faced with an unfunded liability of over **$9 billion**.

The other six systems combined have actuarial assets of only $3.8 billion. Clearly the overall state of Oklahoma's pension systems is in dire straits since the two largest pension systems comprising 76% of the total pension system assets have a total unfunded liability that is twice as large as the assets of all of the other systems combined.

This begs the question, what is the overall health of Oklahoma's system of State pensions? Table 2 below provides the information to answer this question. The overall actuarial assets of our seven pension systems combined are $16.2 billion.

Compared to a total of actuarial liabilities of $26.8 billion, the overall funded ratio for the collection of State pension systems is 60.5%. More disturbingly, Oklahoma has more than **$10 billion** in current unfunded liabilities in its pensions.

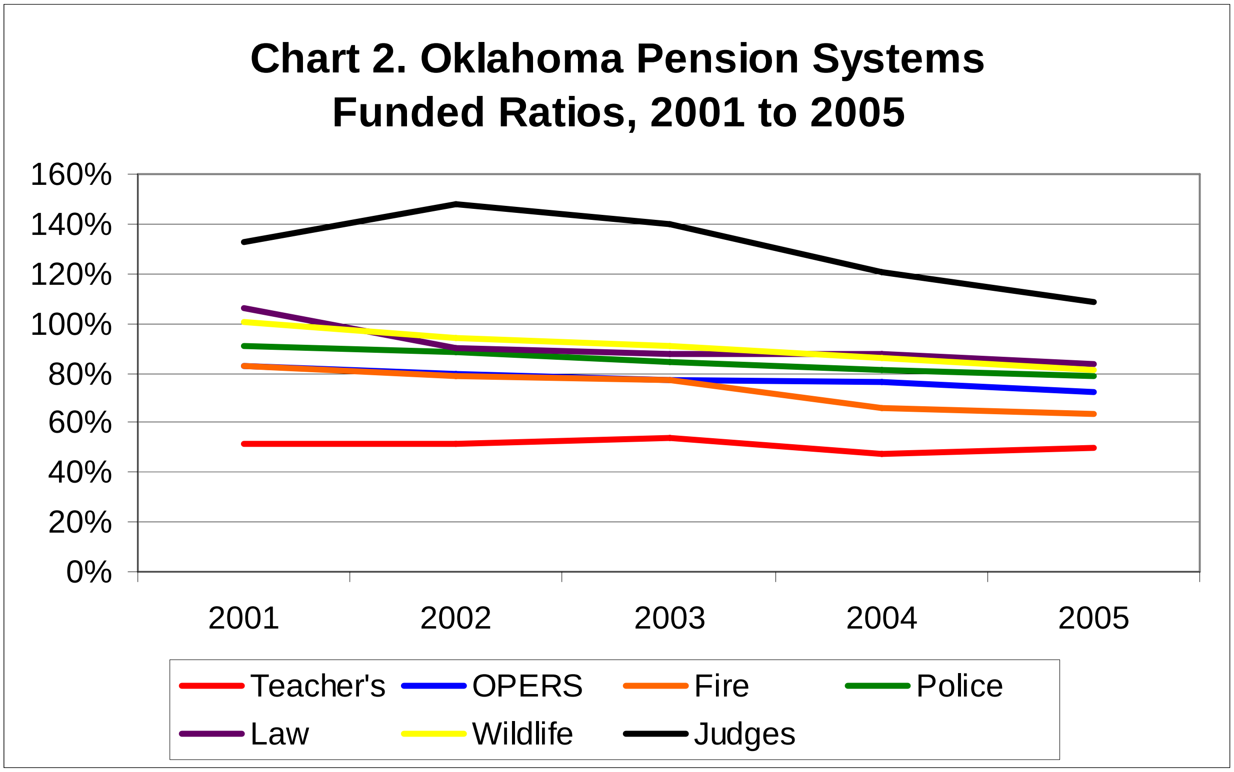
Table 2. Comparison of Oklahoma State Pension Systems Funding, 2005 (Dollars in Millions)

	Teacher	OPERS	Fire	Police	Law	Judges	Wildlife	TOTAL
Actuarial Assets	$6,953	$5,450	$1,486	$1,424	$630	$204	$59	$16,206
Actuarial Liabilities	$14,052	$7,575	$2,333	$1,812	$752	$186	$73	$26,782
Unfunded Liabilities	$7,100	$2,125	$847	$388	$122	($18)	$13	$10,576
Funded Ratio	49.5%	72.0%	63.7%	78.6%	83.8%	108.7%	81.4%	60.5%

III. Recent Trends in Status of Funds

As if the current picture were not bad enough, the recent trends for the systems also need to be considered. Chart 2 below shows the funded ratios for all seven Oklahoma pension systems for the past 5 years. This chart clearly demonstrates a troubling trend; funded ratios have declined among all seven Oklahoma pension systems during the past five years.

The recent trends add to the concerns highlighted by the discussion of the current status of the systems in the previous section. Not only are Oklahoma's pension systems in a state of crisis, but the trend is worsening.



IV. Projected Future Funding Requirements

Looking at the largest fund in Oklahoma's system, Teachers, proves instructive in projecting the future funding needs of the Oklahoma system of pensions. Using assumptions specified by the Pension Commission, the actuary for Teachers estimates the required contributions to the system, in excess of the current employer and employee contributions, just to keep the fund level from dropping below the current level of 49.5% is almost $731 million per year.

In FY-2005, the State contributed $164 million, less than one-quarter of the level of funds necessary to reach the level of basic solvency. Teachers is woefully under funded and, if left unchecked, the situation will continue to worsen.

Similarly, estimates by OPERS reveal that contributions required to reverse its recent trend are $302 million annually, while total employee and employer contributions were $192 million in the past year. However, unlike Teachers, OPERS receives no direct State revenue.

V. Underlying Causes of Crisis

There are a number of factors that have contributed to the current crisis. Experts that deal with pension funds often use a visual example to discuss the operation of such funds. Imagine a bucket which represents the pension system on whole. There is a hole in the bottom of the bucket from which water is flowing. This represents money flowing out of the pension system. At the same time there is water being added to the bucket representing employer and employee contributions, investment income and dedicated revenues from the state. The level of water in the bucket depicts the funded ratio of the pension system; the more water in the bucket, the healthier the pension system.

In this bucket example, the objective is to reach a point where the level of water in the bucket reaches the full line, and to have the water being added to the bucket exactly equal to the water draining from the bucket. Contrasting the current situation in the Oklahoma state system of pensions against this objective, it is apparent that not only is the bucket only 60.5% full at the moment, but also the funds draining from the bucket are greater than the funds flowing into the bucket. If left unchecked, at some point our bucket gets empty.

Thus, it is apparent that the State's system of pension funds, on total, is significantly under funded and the problem is only going to get worse. In order to help frame some solutions to the current problem, it is instructive to fully understand the issues that have led us to this point. These issues are of two types, insufficient inflows and overly sufficient outflows.

A. Inflows

A significant factor in explaining the downward trend in funded ratios of the Oklahoma State pension systems is the performance of the United States stock market. Domestic equities experienced significant negative returns in 2000 and 2001 due to the bursting of the "bubble" in high-tech stocks and the accompanying recession of 2000 to 2001. Some observers might be tempted to claim that this decline in values is not indicative of normal times for Oklahoma pensions systems and, thus, one should refer to the funded ratios prior to the negative shock of the recession as a better indication of the standing of the State's systems. However, such an approach would result in a distorted view of Oklahoma's pension systems by projecting future returns based upon the historic bullish economy of the United States during the decade of the 1990s.

A truer view of the status of the pension systems is found three to four years following the completion of a full economic cycle of recovery, expansion, and subsequent recession. In short, the current view in 2005 is the ideal vantage point from which to view the status of the State's pension systems as the current climate is four years removed from the 2000-2001 recession.

Over the long-run, each of the seven Oklahoma State pension systems is reaching its targeted return on invested funds. Accordingly, this inflow does not appear to be an area of concern except for the risk profile undertaken by some of the systems to obtain their targeted returns.

Employer contributions range from 2% of salary for Judges to 13% of salary for both the Police and Fire pensions as shown in Table 1. Employee contributions range from a low of 3% of salary for the first $25,000 annually for a State employee in OPERS to a high of 12.4% of salary for municipal police officers in the Police system. Total contributions to the respective pension systems are the most important measure since it matters not financially whether the employee or employer makes the contributions. What is essential is that the level of total contributions is sufficient to adequately fund the system. This measure ranges from 11% for Judges to 21% for

Police and Fire. As expected, the total contributions are significantly higher for the public safety pension systems (Police, Fire, and Law) as these are all 20 year and out systems.

According to the *Public Fund Survey, Summary of Findings for FY 2004* published by the National Association of State Retirement Administrators in September 2005, the average total contribution for non-public safety, Social Security eligible public pension systems nationally is 12.1%. Oklahoma's largest systems, Teachers and OPERS, are directly comparable to this measure and have contribution rates of 14.05% and 13% to 13.5%, respectively, well above the national average. Thus, current employee and employer contributions are unlikely to be a direct cause of the system crisis.

The same cannot be said of historical contributions, however. The Oklahoma Teachers Retirement System was established in July 1943 and employees were required to contribute 4% of regular annual compensation between 1943 and 1970. The employee contribution rate increased to 5% in 1970 where it remained until 1987. Between 1987 and 1997 members contributed between 5% and 7% on the first $25,000 of annual income and between 7% and 11% on income between $25,000 and $40,000. Since 1997, the contribution rate has been 7% for all members where it remains today.

Prior to 1989, employers made no contributions to the Oklahoma Teachers Retirement System. Thus, total contributions to Teachers prior to 1989 were 4% to 5%; a woefully inadequate amount to properly fund the system. These inadequate contributions to the system for more than four decades are a primary reason that Teachers finds itself in such dire financial straits today. While current contributions are at an adequate level, historically this has not been true and the system is still suffering today from the hole dug prior to 1989.

Currently only the Teachers, Fire, Police and Law systems receive dedicated state revenue. In FY-2007 Teachers will receive 4.5% of the state individual and corporate income taxes and the state sales and use taxes. The rate will increase to 5% in FY-2008. Also, Teachers receives 5% of lottery revenues. As indicated above, these dedicated revenues are insufficient to close the funding gap for the Teachers system.

The other three systems all receive a portion of the Insurance Premium Tax with the Fire system receiving 41.7% through FY-2009 and 34% thereafter; the Police system receiving 17% through FY-2009 and 14% thereafter; and the Law system receiving 6.1% through FY-2009 and 5% thereafter. Actuarial studies for the public safety pensions indicate that the level of dedicated revenue is insufficient for the Fire and Police systems. The Law system is the exception here in that the current level of contributions and dedicated revenues appear to allow this system to reach adequate funding levels.

On the other side of the ledger are OPERS, Judges, and Wildlife. None of these funds receive any dedicated state revenues. While Judges and Wildlife are not at crisis levels yet in terms of the unfunded liability, it is entirely possible the day is coming where these two systems will be facing a situation similar to the other systems.

The problem for OPERS is much more immediate however. While the total contribution rate for OPERS is slightly above the median nationally, there are no corresponding dedicated state revenues to the system. This is the major cause of the crisis in Oklahoma's second largest state pension system. Prior to 1999, total employee and employer contributions to OPERS averaged approximately 15.5% with employers paying 12.5% of the total. Since 1999, the contributions have been 13.0% to 13.5% with employers paying only 10%.

The pre-1999 contribution rates were high enough that dedicated State revenues were not required to adequately fund OPERS. However, with the reduction in employer contributions since 1999, that is no longer the case. To properly fund OPERS requires either restoring the historic employer contribution rates or the addition of dedicated funding.

As this discussion demonstrates, the current employer and employee contributions and investment returns are in line with other public pension funds across the nation. The only inflow that remains as a potential cause of the current crisis is the level of dedicated revenue from the State.

Within the area of dedicated state revenue, a particular issue that is causing problems for the public safety pensions is the growing trend of cross-subsidization of tax credits. The Oklahoma Legislature has increasingly provided for various transferable income tax credits to offset insurance premium tax liabilities. As the insurance premium tax is the dedicated revenue source for the three public safety pension systems, any decreases in this tax base have dire consequences on the long-term health of these funds as their funding base is diminished.

B. Outflows

The outflows from a pension system are typically of two forms: regular retirement benefit payments and deferred retirement option (DROP) benefits. All of Oklahoma's pension systems are defined benefit (DB) plans. Defined benefit pension are of two types: standard systems and "twenty and out" systems. According to the *2004 Comparative Study of Major Public Employee Retirement Systems*, published in December 2005 by the Wisconsin Legislative Council, the median defined benefit non-public safety pension plan utilizes a 2% benefit multiplier. Thus, Oklahoma pension systems are in line with the majority of DB systems in the United States since they generally utilize a 2% benefit multiplier.

Another factor that can affect the outflow of regular retirement benefits is cost of living adjustments (COLAs). A COLA is a specified percentage increase in the amount of benefits paid to current retirees that is enacted by state legislation. The intent of a COLA is to protect the purchasing power of benefits for current retirees from the effects of inflation.

The history of COLAs in Oklahoma has fallen far short of this objective. For example, Firefighter retirees have been granted 10 separate COLAs by the Oklahoma legislature since 1981 averaging 4% to 5%. If a member retired from this system in 1981 with an annual benefit of $10,000 and received all of these COLAs, their annual benefit would now be $16,320. However, to achieve purchasing power parity, that same retiree would actually require annual benefits of $22,925. This retiree has lost over $6,600 of purchasing power as a result of COLAs granted to retirees falling below the true rate of inflation.

While the size of the COLAs granted by the Oklahoma legislature is significant, they are granted on an irregular basis. The magnitude of the adjustments fails to overcome the lack of regularity.

The Wisconsin Legislative Council reports in its *2004 Comparative Study of Major Public Employee Retirement Systems* that 61 of the 85 public plans surveyed provide COLAs that are indexed to inflation or an automatic set percentage increase. 20 of the 85 plans provide COLAs on an ad hoc basis, as does Oklahoma.

In light of the comparison of COLAs granted to Oklahoma State pension system retirees, it is clear that the Legislature has been anything but generous in the granting of COLAs. Thus, another suspect in the search for causes of the current funding problems must be removed from the list of potential causes of the current crisis.

DROP Plans allow current employees in the public safety pensions (Police, Fire, and Law) with at least 20 years of credited service to irrevocably elect to enter the DROP program. By entering into the DROP program, the employee limits themselves to working for no more than five additional years as specified statutorily and in the DROP Program contract.

Upon entering the DROP program, the employee ceases to accrue credited service for the calculation of retirement benefits. Also, the employee stops making contributions to the system. The employer contributions on behalf of the employee to the system continue, but a portion of these contributions are directed into an account specifically for the employee called a DROP account. Also, the monthly retirement benefit the employee would receive if they had retired when they entered the DROP program is deposited into the DROP account. These funds are invested identically to the rest of the pension funds.

When the employee retires, the amount of funds in the DROP account is available to the new retiree immediately as a lump sum payout. Oftentimes, the amount of this payout is substantial and is rolled over into a qualified retirement investment vehicle such as an Individual Retirement Account (IRA). Upon retirement, the employee also begins to receive a monthly retirement benefit that is based on the years of service up to entering the DROP program. In essence, the employee trades a lower future stream of benefit payments for a lump-sum payout immediately upon retirement.

While the DROP program may seem to have no affect on the outflows from the pension systems since the payments to the DROP account are based on the retirement benefits the employee would otherwise be eligible to receive, there is a potential cost to the state pension systems of the DROP program. In the Fire, Police and Law systems' statutes specifying the operation of the DROP, the employee accounts are guaranteed to grow each year by the actuarially assumed growth rate of the funds, which is 7.5% for these funds. If the actual growth of the pension fund exceeds 7.5% in a year, then the DROP account receives the actual return minus 2%.

Here again, there is a trade off; but in this case, the tradeoff is less equal. In a year when the pension system earns a 10% return on investments, the DROP accounts are paid 8%. However, when the system earns a 0.5% return in a year, the DROP account is still paid 7.5%. While this has yet to have a significant impact on any of these funds, it is a concern worth monitoring in the future.

In total, while the DROP program could present a problem for Oklahoma pension systems in the future, it has yet to impose any significant cost on the systems. Similarly, the benefit multiplier in Oklahoma pension systems is in-line with national norms and the COLAs offered to our retirees are significantly less generous than either the national average or inflation. The use of health benefit allowances is less pervasive in Oklahoma than in most states and increases in these benefits have been smaller than the national average, and much smaller than cost increases. These factors combined clearly indicate that the current crisis in the Oklahoma State system of pensions is not a result of overly generous benefits to retirees.

VI. Impacts of the Crisis

As the above sections have shown, the Oklahoma State pension systems are indeed in a crisis. The ultimate impact of this crisis will be borne by the taxpayers of the State of Oklahoma who will end up either paying significantly more taxes to fund the systems or will suffer from substantially reduced state governmental services.

As Table 2 depicts, the Oklahoma State system of pension funds is currently funded at only 60%. More alarmingly, the recent trends and actuarial studies indicate the funding level will continue to decline. The longer the problem is left unchecked, the more difficult will be the solution. The State has made commitments to the members of the seven pension systems and corrective action must be taken in order to keep those commitments.

In addition to the potential cost that is borne by Oklahoma taxpayers, there is another risk they are being forced to bear. Several systems within the Oklahoma State system are making questionable investment allocations. These systems are moving into aggressive, highly volatile investment categories.

The two systems in Oklahoma that have pursued this direction most aggressively are the Teachers and Police systems. As previously indicated, the Teachers system has an actuarially assumed rate of return on investments of 8% as opposed to the other six funds with an assumed rate of 7.5%. This higher assumed rate leads the Teachers system to be more aggressive in its investment philosophy and resulting asset allocation.

This is evidenced by the fact that Teachers allocates 53.5% of its investment portfolio to domestic equities, 8.9% more than the average similarly sized U.S. public pension fund. Also, Teachers has 16.3% of its portfolio allocated to international equities, 2.7% more than the similarly sized average U.S. public pension fund. Between the two classes of equities, Teachers has 11.6% more of its funds in equities than the average fund. Clearly, Teachers is assuming a higher level of risk by overweighting equities in hopes of achieving higher portfolio returns.

This, however, is minor when compared to the risks being taken on by the Police system. The Police system is underweighted in domestic equities by 4.1% and by 1.2% in international securities. Also, the system is underweight 13.6% in domestic bonds and overweight 2.9% in international bonds, a net of 10.7% underweight in bonds.

In the Police system 22.9% of the portfolio is allocated to alternative investments. This is the largest share of assets in this category out of the entire comparison group. The comparison group is composed of United State public pension funds with between $150 million and $10 billion in assets. Of the 92 public pension funds in this comparison group, the average portfolio weight in alternative investments is 1.6%. However, 59 of the 92 systems have no alternative investments. Across the 33 funds with alternative investments, the average allocation is only 5.3%. Police has more than 4 times the average allocation in alternative investments.

Alternative investments are composed of a broad range of investments including private equities and hedge funds. Police is heavily invested in both. The greatest concern, however, is the relative weight of private equity (PE) investments.

Private equity is ownership in a venture that is traded privately as opposed to being traded on a public exchange such as the New York Stock Exchange. Publicly traded equities, and the markets in which they are traded, are subject to a broad array of rules and regulations of the Securities Exchange Commission and other oversight authorities.

Private equity is subject to no such oversight since the business is privately held. In fact, the lack of established markets for the sale of ownership interests and the volatility of returns are major reasons that PE has a higher expected return.

Another issue with PE investments is the liquidity of the investment. PE investing is usually organized through a limited partnership where the investor buys an ownership stake in the partnership. These partnerships are governed by a contractual partnership agreement which will typically require a multi-year commitment of funds from the investors. This means that investors are prohibited from withdrawing monies invested with the partnership until the end of the commitment period, which can be as long as 12 years.

Another significant concern with private equity investing is the fees paid to the PE manager. In the domestic public equity markets, managers typically receive an asset-based fee that averages between 55 and 60 basis points, or 0.55% to 0.6% of invested funds. PE managers routinely receive fees that are two or three times this amount.

Finally, private equity is an inherently volatile investment category. Investment in private equity brings expected returns of 10%, which is slightly higher than large cap domestic equities expected returns of 8.5%. However, the volatility of the private equity returns is 27%, which is significantly higher than the 16% volatility expected with large cap domestic equities. In fact, private equity has the most volatile returns of any major asset category. This clearly demonstrates the high-risk, high-reward nature of investing in private equity.

VII. Impact of Crisis on State Government

Oklahoma State government is likely to face impacts of the crisis in the near future. The direct impact on State government is likely to be felt in two manners. First, and foremost, if left unchecked, the crisis in Oklahoma State pension funding will begin to hamper the State's credit quality.

As evidence of this, Standard & Poor's (S&P) released a report entitled *Rising U.S. State Unfunded Pension Liabilities Are Causing Budgetary Stress* on February 22, 2006 examining public pension liabilities of the states. The opening paragraph of the report clearly details the level of concern of S&P, one of the major credit rating agencies in the United States.

> "U.S. state budgetary stress continues to rise due to increasing pension fund contribution demands at a time when costs are also escalating in other areas, such as education and Medicaid. Higher pension liabilities are pressuring the creditworthiness of these states despite their overall strong revenue performance."

This report examined the two largest state public pension systems in all 50 states to compare the overall state credit rating, the funded ratio of the systems and per capita measures of the unfunded liabilities and debt levels. Oklahoma fared poorly in the comparisons. The unfunded liability in Oklahoma's two largest pensions, Teachers and OPERS, is the 10th largest among the 50 states. In order to appropriately compare unfunded liability across states, a relative measure such as per capita measures must be used. Oklahoma has the 7th largest per capita unfunded liability according to the report.

While these facts are stark, the major problem for Oklahoma is the funded ratio of the state pension systems. According to the report, Teachers and OPERS, in aggregate, are only 57% funded; the second worst such ratio among the 50 states.

As the conclusion to the S&P report succinctly explains: "To the extent that pension…funding problems act to decrease a state's financial position or flexibility, and these issues are not addressed, they could exert downward pressure on the state creditworthiness at least over the intermediate term."

If Oklahoma's credit rating suffers as a result of the unfunded liabilities in our pension systems, the cost for the State to borrow money via issuing bonds definitely increases as bond buyers demand higher interest payments to compensate for the increased credit risk. In addition, the cost of bond insurance would also increase as insurers recognize the increased risk of Oklahoma's revenue backed bonds.

This is money that is paid to bond holders and insurance companies instead of being available to pay for other potential governmental priorities such as teacher pay raises, road repairs or tax reductions.

Another concern is the very real possibility that increases in borrowing cost caused by Oklahoma's under funded pension systems could result in less capital investment in such key areas as higher education and technology advancement. Investment which would create benefits for generations of Oklahomans could be lost to the state if the current crisis is left unattended and allowed to fester.

VIII. Recommendations

As the section discussing the causes of the current funding crisis in the Oklahoma state system of pensions demonstrates, there is no evidence that the funds flowing out of the systems are the problem. Therefore, the problem must lie in the funds flowing into the systems. The above discussion also showed that employer and employee contributions to the Oklahoma pension systems exceed the median national contribution rate.

Furthermore, the investment performance of the Oklahoma pension funds is meeting the necessary rates of return in the long-run, indicating this inflow is not a concern. Thus, only two possible avenues remain to address this crisis if policy makers do not wish to increase contribution levels well above national averages: increased State revenues for the systems and other means of increasing the funds coming into the systems.

According to the report *Oklahoma State Pension Commission Retirement System Summary of Actuarial Reports*, released in February 2006 by New England Pension Consultants, for fiscal year 2005 the seven funds in the Oklahoma system of State funds needed employer contributions and dedicated state revenues totaling $1.2 billion to attain solvency. The actual level of contributions and dedicated revenues were only $700 million leaving a $500 million annual funding gap.

The magnitude of these figures highlights the most probable reason that prior Legislatures have not addressed the funding problems. The problem appears too large to be solved in any one legislative session without employing draconian measures.

The Pension Commission recommends the Legislature and Governor pursue four programs to begin addressing the funding crisis:

Recommendation 1. Increase State revenues to pension systems.

While it is unlikely the State can afford to fill the above referenced $500 million gap in one year, the first steps must begin. In FY-2006 Teachers receives 4% of individual and corporate income taxes and 4% of sales and use taxes. These rates increase to 4.5% in FY-2007 and 5% in FY-2008 and beyond. It is time to evaluate these revenues and increase the State share of revenues flowing to Teachers and OPERS in order to sustain the viability of Oklahoma's largest State pension systems

Similarly, policymakers must undertake a systematic review of the dedicated revenue from the Insurance premium tax to the public safety pensions (Police, Fire, and Law). As indicated previously, the Fire system receives 41.7% through FY-2009 and 34% thereafter; the Police system receives 17% through FY-2009 and 14% thereafter; and the Law system receives 6.1% through FY-2009 and 5% thereafter. While the decrease in the shares of the premium tax in FY-2010 will decrease these systems to their traditional funding levels, they are unable to lose the revenue without suffering decreasing funded ratios.

Recommendation 2. Eliminate or ameliorate the effects of transferable tax credits on the insurance premium tax base.

This is an issue of primary importance to the public safety pensions as credits against the insurance premium tax have reduced the pool against which state revenue flows into the Police, Fire and Law systems. The Legislature should protect the pension systems from being impacted by tax credits by enacting legislation that applies these tax credits against the portion of the premium tax that accrues to the General Revenue fund only.

Recommendation 3. Dedicate a portion of revenues to pension systems.

The recent economic recovery has provided the State with excess revenue collections which, in turn, presents a unique opportunity to address the crisis in State pension system funding. The

Constitutional Reserve Fund, or "Rainy Day" Fund, reached its limit for the first time in history at the end of FY-2005, and current projections are that it will happen again at the end of FY-2006. Additionally, after capping this fund, there was nearly $200 million in money remaining at the end of FY-2005 and there could be as much as $400 million remaining at the end of FY-2006.

Rather than leaving this money to carry forward to the next legislative session as one-time, non-recurring funds, the Pension Commission recommends dedicating a portion of any such future revenues be directed to the State pension systems. In fact, Governor Henry proposed in his FY-2007 Executive Budget that one-quarter of the surplus funds at the end of FY-2006 be deposited in the Teachers system. This is an excellent start and the Governor should be commended for having the foresight to begin addressing the funding crisis in Oklahoma's pensions systems. However, this cannot be a one-year proposal; it must continue until such time as the systems are no longer in crisis and the Pension Commission recommends making this proposal permanent.

Recommendation 4. Pursue other financing mechanisms, such as pension obligation bonds, to infuse additional money into the systems.

There are many other tools available to the State to increase the amount of funds flowing into the pensions systems. The current crisis in State pension funding necessitates considering each of these possible options as a tool for helping solve the problem. The Oklahoma Legislature should enact legislation allowing the State to utilize some of these tools.

For example, the Legislature should give serious consideration to the prospect of allowing the State to issue Pension Obligation Bonds (POBs). The concept of POBs is a simple arbitrage. The State issues tax-exempt long term bonds (borrows money) at a certain interest rate with the bond payments paid from dedicated revenue streams. The funds borrowed are invested by a pension fund, and over a long term earn the actuarially assumed rate of return.

Typically, the interest rate paid to the bond holders is between 5% and 6%, while the pension fund earns 7.5% to 8%. The 1.5% to 3% difference in annual return is additional money generated for the pension system and can be quite substantial. A 2% spread on a $1 billion POB would generate an additional $20 million each year on a 30 year bond. Clearly, given the proper market situations, POBs can greatly help the funding level of Oklahoma's State pension systems.

Additionally, POBs allow a state to monetize its unfunded liability and require a state to be fiscally disciplined by systematically addressing its unfunded pension liability by making annual debt service payments. Many pension systems have employed POBs in the current favorable interest rate climate as a tool to address their unfunded liability situations.

IX. Conclusion

The current health of the State public pension systems is poor. This report is a call to action for Oklahoma policymakers similar to the warning of a heart attack. The patient can choose to eat healthier, exercise and stop smoking and continue to live a long, healthy productive life. Or the patient can be stubborn and refuse to change his ways, thus choosing a path that leads to an early grave. The choice is up to Oklahoma's policy makers