



Washington State Investment Board

Washington State's Pension System: Network for Studies on Pensions, Aging and Retirement

Erasmus School of Economics
June 5, 2014



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U.S. Pension System in the News Constantly – And Not for the Right Reasons

May 7, 2014

THE HUFFINGTON POST

Pension Fund Scandal

Pension Fund Scandal Shows That Corruption Still Pays Well in New York

John W. Moscow | Posted 08 23 2011 | New York

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In the NY pension fund scandal, we are at risk of seeing the principle of "equal justice for all" being savaged as people who engaged in really bad behavior are getting off with remarkably lenient sentences.

Chicago Tribune NEWS

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Atlanta Schools' bad pension idea

May 01, 2014 | James Saft | Reuters

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(Reuters) - Atlanta Public Schools is considering selling up to \$540 million of bonds to

There Is Power in a Union: The Latest Chicago Pension Scandal

State-union relations and public pensions are on the political frontburner... and a Tribune

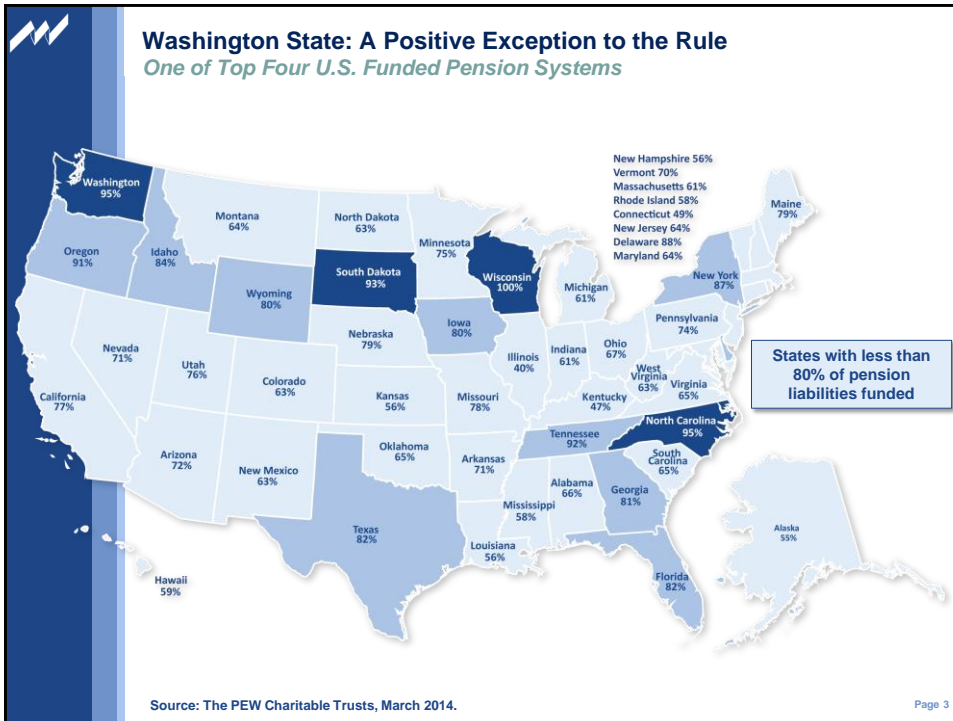
ers drawing substantial city pensions will add

The New York Times

Five Officials in San Diego Are Indicted Over Pensions

By JOHN M. BRODER
Published: January 7, 2006

LOS ANGELES, Jan. 6 - San Diego's legal and financial troubles deepened on Friday as a federal grand jury handed up fraud and conspiracy indictments against five current and former officials of the city's pension system.



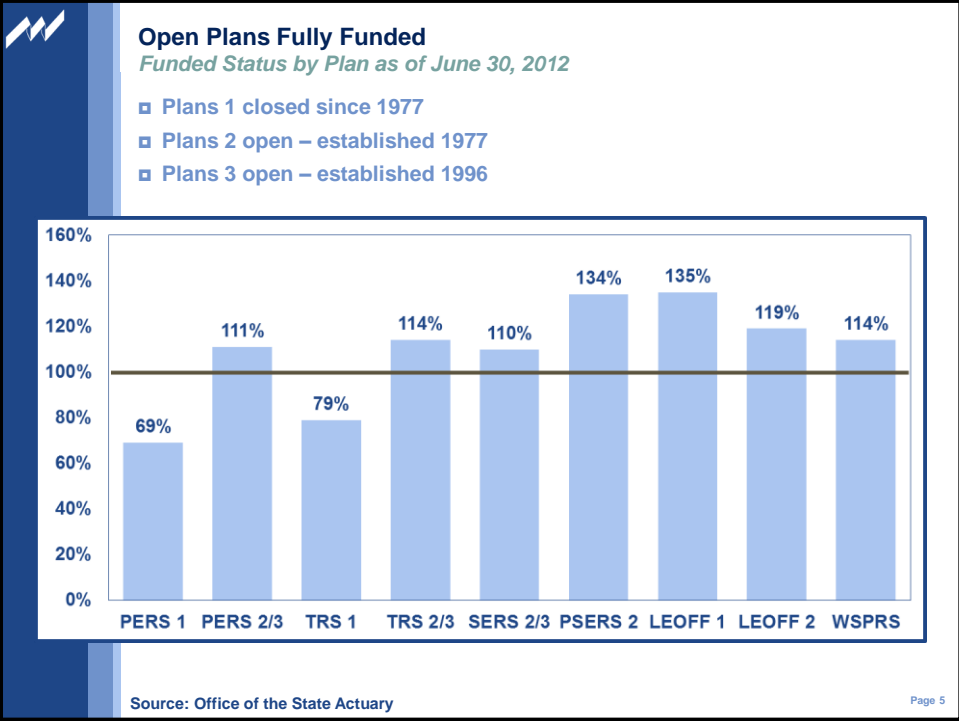
Washington State, County, or City Employees Covered Under One Pension Roof

- ▣ All public employees share similar plan designs
- ▣ Defined benefit (DB) plans and hybrid DB/DC (defined contribution) plans commingled into one investment fund
- ▣ Benefits administered by a single agency


Defined Benefit Plans	Market Value
Public Employees' Retirement System Plan 1 (PERS)	\$7,692,265,731
Public Employees' Retirement System Plan 2/3	\$27,775,661,645
Teachers' Retirement System Plan 1 (TRS)	\$6,315,243,531
Teachers' Retirement System Plan 2/3	\$13,152,411,518
Volunteer Fire Fighters' Relief & Pension Fund (VOLFF)	\$189,518,594
Washington State Patrol Retirement System Plan 1 (WSPRS)	\$1,020,465,381
Washington State Patrol Retirement System Plan 2	\$26,419,027
Law Enforcement Officers' & Fire Fighters' Plan 1 (LEOFF)	\$5,499,249,585
Law Enforcement Officers' & Fire Fighters' Plan 2	\$8,695,121,579
School Employees' Retirement System Plan 2/3 (SERS)	\$4,780,247,510
Public Safety Employees' Retirement System Plan 2 (PSERS)	\$274,074,379
Higher Education Retirement Plan Supplemental Benefit Fund	\$16,340,512
Total	\$75,437,018,993

Defined Contribution Plans	Market Value
Deferred Compensation Program (DCP)	\$3,467,581,423
Judicial Retirement Account (JRA)	\$12,928,144
Total	\$3,480,509,567

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Washington Success Attributable to Three Legs of Pension Stool All Stable



- Sound Pension Design**
 - Modest benefits – average payout per retiree (under \$25,000)
 - Retirement age 65 for all but public safety employees
- (Mostly) Adequate Contributions**
 - History of full funding until this decade
- Strong Investment Returns**
 - Consistently in top decile of public pension funds
 - Exceeding actuarial return assumption in all annualized time periods

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Sound Pension Design



Washington State Is A National Leader In Pension Policy



Major reforms as far back as 1977

- ▣ Closed Plans 1 to new members
- ▣ Created Plans 2 with age 65 normal retirement age
 - ▣ Age 65 unreduced retirement
 - ▣ Equal employee/employer cost sharing in Plans 2

Early adopter of hybrid design – 1996

- ▣ Plan contains both defined benefit and defined contribution

First state to create sophisticated risk assessment of plan sustainability

- ▣ Measures funding ratio sensitivity to benefit changes, investment returns, and contributions

Cost-reduction reforms in 2007 and 2011

Other states following Washington's earlier examples

Pensions in Washington State

1930 1940 1950 1960 1970 1980 1990 2000 2010

- 1930's-1940's: various public pension systems created
- 1950's-1960's: independent administration continued
- 1960's-1970's: local police/fire systems consolidated into LEOFF
- 1976: Dept. of Retirement Systems and State Actuary created
- 1977: Plan 2 created for PERS, TRS and LEOFF
- 1981: Washington State Investment Board created
- 1987: Joint Committee on Pension Policy Created
- 1995: TRS Plan 3 created
- 1998: SERS Plan 2/3 created
- 1999: PERS Plan 3 created

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Affordable Plans

Plans 2 – Defined Benefit

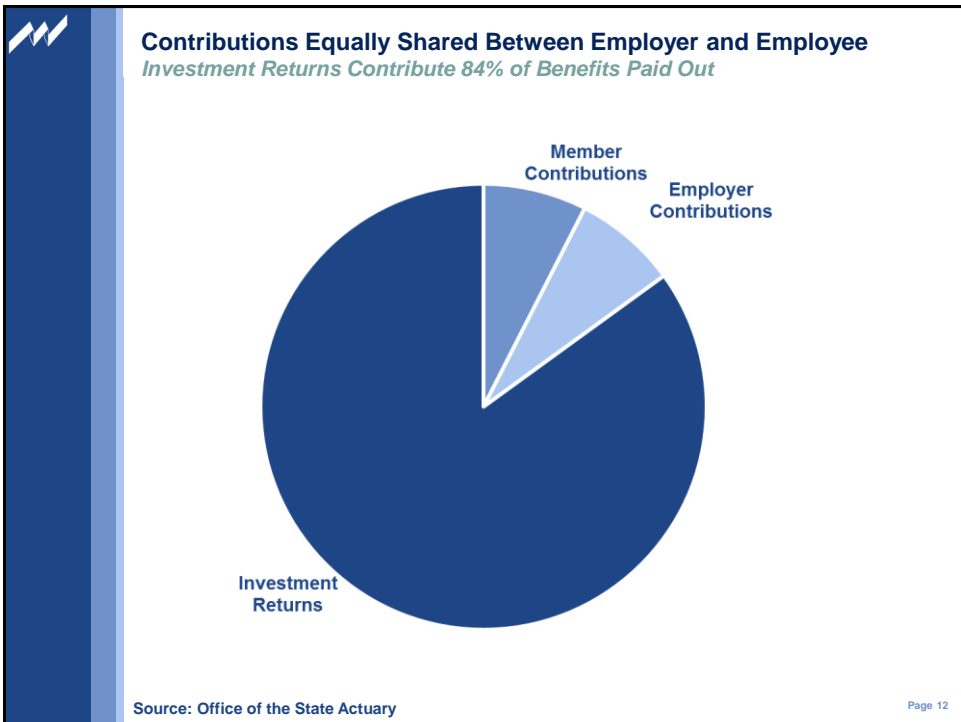
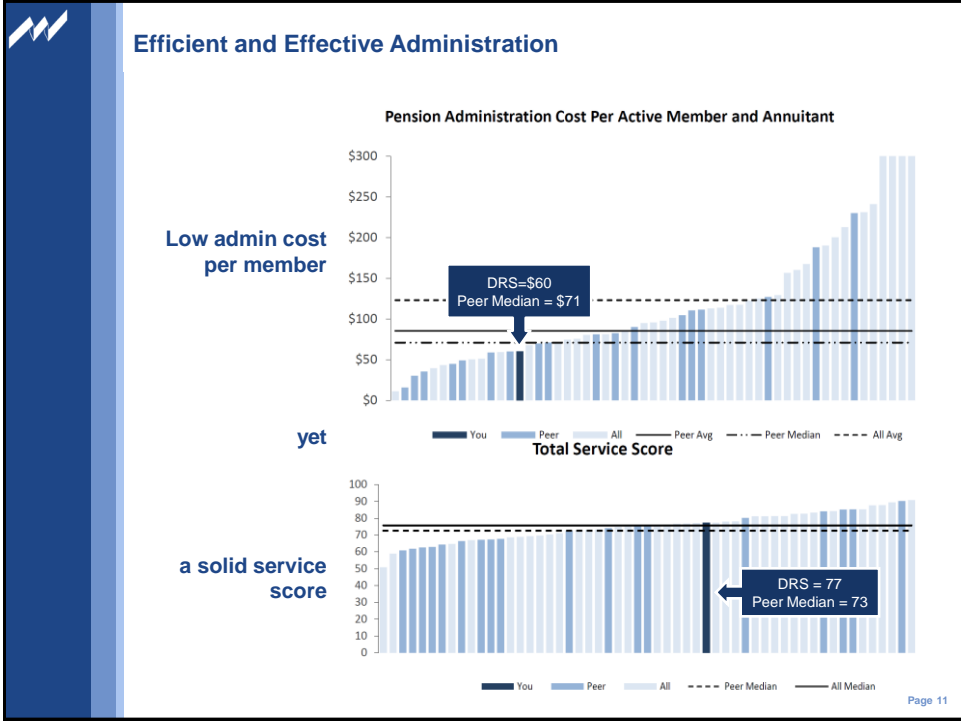
- ▣ 2% per year accumulation
- ▣ Equal cost sharing between employer and employee
- ▣ 5 year average consecutive compensation period
- ▣ 5 year vesting
- ▣ Age 65 retirement

Plans 3 – Hybrid Defined Benefit/Defined Contribution

- ▣ 1% per year defined benefit accumulation
- ▣ Employee defined contribution variable up to 15%
- ▣ 5 year average consecutive compensation period
- ▣ 10 year vesting
- ▣ Age 65 retirement

Variable COLA

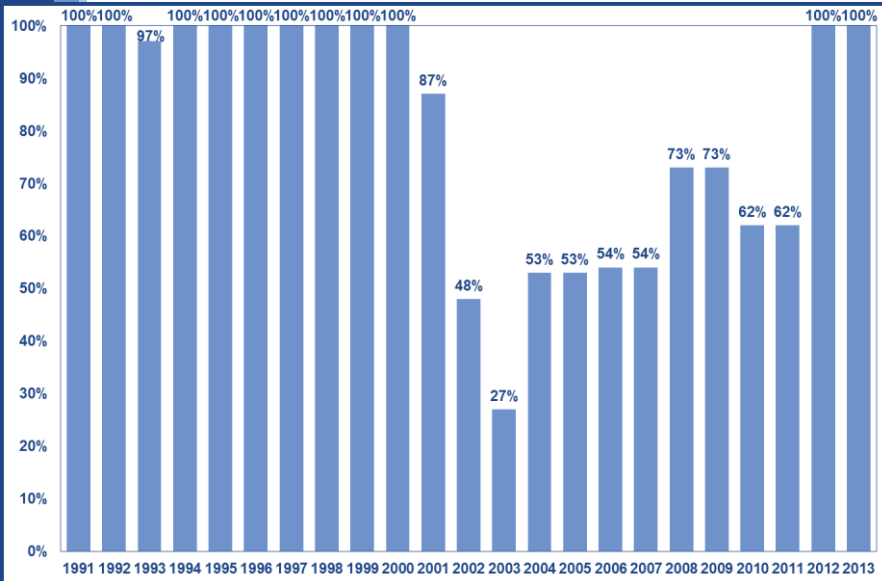
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(Mostly) Adequate Contributions



Past Funding Practices



Source: Office of the State Actuary

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Current Plan Contribution Rates

- Contributions vary by funded status of plan

	Employer Contribution Rates		Plan 2 Member Contribution Rates	
	Current	2013-15	Current	2013-15
PERS	7.05%	9.03%	4.64%	4.92%
TRS	7.89%	10.21%	4.69%	4.96%
SERS	7.43%	9.64%	4.09%	4.64%
PSERS	8.71%	10.36%	6.36%	6.36%
LEOFF 1	0.00%	0.00%	N/A	N/A
LEOFF 2	5.08%	5.05%	8.46%	8.41%
WSPRS	7.91%	7.91%	6.59%	6.59%

Source: Office of the State Actuary Page 15

Future Contribution Increases Expected

- Still recognizing deferred asset losses from great recession under asset smoothing method
- Phasing-in higher Plan 1 requirements to bring in full funding
- Lowering assumed rate of investment return
 - 7.8% assumed ROR for 2015-17
 - 7.7% assumed ROR for 2017+
- Creates short-term pressure on state and local government budgets
 - Pay now or pay more later

Estimated Contribution Rates for Plans 2 and 3

Year	PERS	TRS	SERS	Member Rates
2015	~1.5%	~2.5%	~2.5%	~5.0%
2016	~1.5%	~3.5%	~2.5%	~5.0%
2017	~1.5%	~3.5%	~2.5%	~5.0%

Source: Office of the State Actuary Page 16

Strong Investment Returns



Net Retirement Fund Performance – March 31, 2014

Market Values and Returns

Commingled Trust Fund (CTF) Market Values and Returns					
	Market Value (000s)	1 Year	3 Year	5 Year	10 Year
Total CTF	\$75,437,018,993	13.00%	9.58%	13.29%	8.02%
Fixed Income	\$16,376,136,852	-0.77%	3.97%	7.05%	5.50%
Tangibles	\$1,117,765,079	-1.79%	1.34%	3.36%	N/A
Real Estate	\$9,711,822,418	13.79%	13.84%	7.24%	9.70%
Public Equity	\$29,363,713,501	18.04%	9.69%	18.92%	7.25%
Private Equity	\$17,164,055,599	19.37%	12.97%	15.63%	13.53%
Innovation	\$360,349,256	53.60%	17.58%	N/A	N/A
Cash	\$1,343,176,287	0.12%	0.14%	0.16%	1.73%

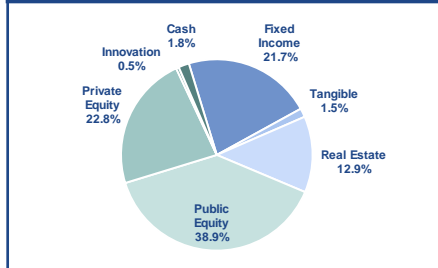
Return Since Inception of the Commingled Trust Fund (CTF) June 1992:

8.89%

Historical Market Value (billions)



Actual Allocation



History of Investing Innovation (Part of Washington Culture)



WSIB past success has been the result of being:

- ▣ Ahead of the market
 - ▣ Private Equity
 - ▣ Global
- ▣ Willing to be different
 - ▣ Real estate operating company (REOC) strategy
 - ▣ Tangible Assets
 - ▣ Fixed Income – not benchmark driven
- ▣ Disciplined
 - ▣ Walk away from strategies that do not fit
 - ▣ Walk away from transactions with unacceptable terms and/or condition
 - ▣ Stayed with asset allocation while others de-risked
- ▣ Long time horizon allows us to withstand interim volatility

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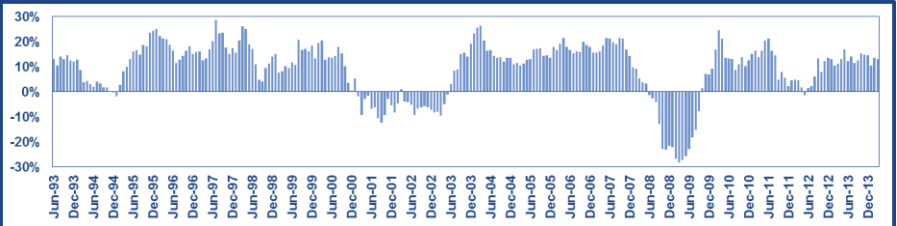
Long-Term Investment Policy Expects Volatility

WSIB uses a 15-20 year horizon for investing

- ▣ WSIB does not need to strictly match pension liabilities with the short-term ups and downs of the market

A long time horizon allows opportunities to take more risk

- ▣ Higher-risk portfolios have more volatility in annual returns, but can achieve higher returns over the long term – this means lower pension contribution rates over the long term
- ▣ Lower-risk portfolios have lower volatility in returns, but expected returns are less – this means more of long-term pension costs must be covered by contributions



Source: Office of the State Actuary

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Investment Volatility Was Less Than Expected Over the Past 20 Years

Even though the picture of investment volatility was very different from the first decade to the second, the amount of volatility over the 20-year period was well within long-term expectations

How did experience compare to expectations?

- Three-quarters of actual investment returns fell inside the expected “interquartile range” and only one-fourth of the actual investment returns fell outside of the expected range

Even the five events that were outside of the expected range were anticipated by WSIB’s modeling, including the one-in-one-hundred-year event that occurred at the end of the period (-22.8% annual rate of return)

What is more striking about the two-decade period is the contrast between the first decade and the second

- The first decade experienced extended upward volatility
- There were no negative returns and significant positive returns, especially in the latter part of the decade

Source: Office of the State Actuary Page 21

Investments Perform Well – Policy Makers Get Generous

Still, pensions were funded at the rate of 80% for the period through 2009

- What would explain this?

When investment returns exceed expectations, contribution rates have declined and benefits have increased

Estimated Present Value of Liability Increases from Benefit Improvements Compared to Historical Annualized Returns

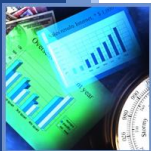
Year	Estimated Present Value of Liability Increases from Benefit Improvements (Dollars in Millions)	Annualized 1 Year Returns (%)
1993	\$548	~10%
1994	\$171	~0%
1995	\$936	~20%
1996	\$0	~15%
1997	\$0	~15%
1998	\$790	~10%
1999	\$11	~15%
2000	\$2,297	~10%
2001	\$88	~-5%
2002	\$11	~-10%
2003	\$29	~15%
2004	\$138	~10%
2005	\$97	~10%
2006	\$99	~15%
2007	\$2,487	~10%
2008	\$69	~-22.8%
2009	\$70	~5%
2010	\$60	~10%

Source: Office of the State Actuary Page 22

Conclusion



Lessons for Policy Makers



Straight Forward in Theory – Messy in Practice

- ▣ Fully cost out benefit increases before adopting
- ▣ Ensure adequate contributions through all economic cycles
- ▣ Invest for the long run

Challenges – it all comes down to governance

- ▣ Mismatch of time horizon between elected officials' terms in office and the liabilities they create
- ▣ 4,000 separate pension fund in the U.S. – few have scale for quality investment management programs

Full understanding of risk critical to sound decisions

- ▣ Washington State Actuary has created multi-dimensional risk analysis for policy makers that models how past behavior can impact future liabilities

