

Pennsylvania Association of School Business Officials

School Retirement Funding: The State In Crisis!

**March 9, 2009
1:00 PM**



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Speakers

- Jeffrey Clay, Executive Director, Public School Employee Retirement System
- Thomas Gentzel, Executive Director, Pennsylvania School Boards Association
- Charles Peterson, PRSBA, Director of Cooperative Business Services & Operations, Central Susquehanna IU #1
- Jay Himes, Executive Director, Pennsylvania Association of School Business Officials



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Framing the Crisis: An Update on PSERS



**Pennsylvania Association of School Business Officials
March 9, 2009**

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Agenda

- **PSERS' Overview**
- **The Market- How bad is it?**
- **Status of PSERS' investments**
- **What is looming in the Future?**
 - **Current Employer Contribution Rate**
 - **Projected Employer Contribution Rate Spike**
- **State Remedies – What are potential options?**

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PSERS' Overview



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PSERS' Overview

- The Public School Employees' Retirement System (PSERS) is a governmental, (non ERISA), mandatory, multi-employer, defined benefit pension plan for Pennsylvania school employees
- PSERS was established on July 18, 1917 and thus is one of the oldest public pension plans in the United States
 - PSERS "plan document" is the Public School Employees' Retirement Code, 24 Pa.C.S. §8101 *et. seq.*
- PSERS is governed by a 15 person Board of Trustees, and has a complement of 310 employees
 - 2009- Changes in legislators and State Treasurer who serve on PSERS board
- PSERS serves over 547,000 members

PSERS currently manages assets of approximately \$45.4 billion as of December 31, 2008

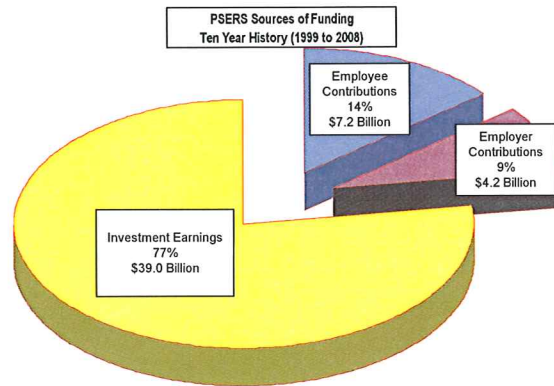
PSERS is the 12th largest state sponsored defined benefit pension fund in the nation according to *Pensions and Investments Magazine*



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PSERS' Overview

- PSERS is funded by three sources:
 - Employee Contributions,
 - Employer Contributions, and
 - Investment Earnings
- Investment earnings have been the primary source of funding for PSERS benefits, dwarfing the contributions from both school employers and PSERS active members



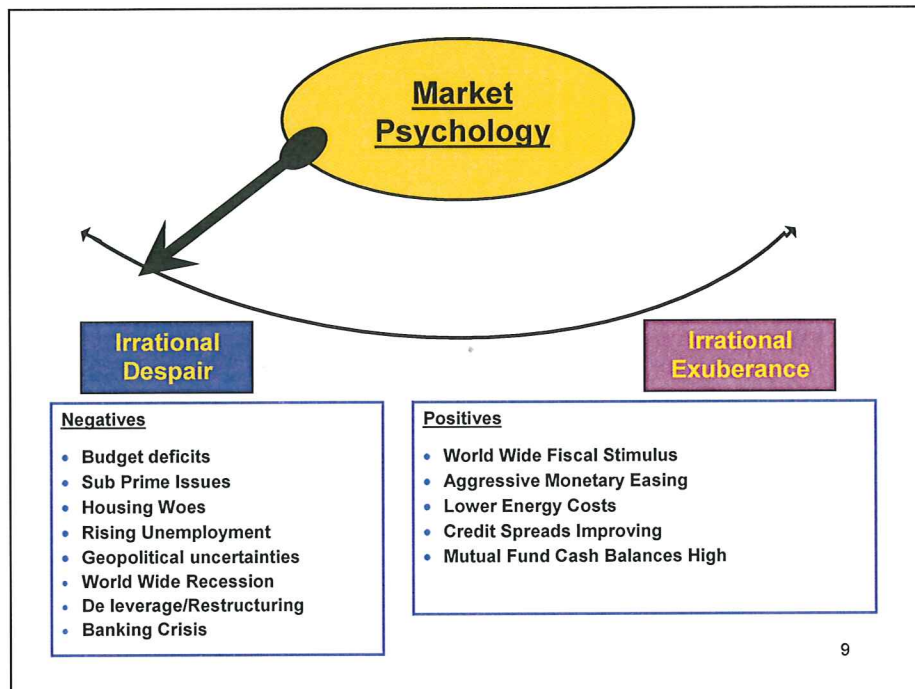
Over the last 25 years, 17% of PSERS' funding has come from school employers. Another 12% has come from PSERS' active members. All the rest – 71% – has come from investment earnings

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The Market: How bad is it?



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MARKET REVIEW 12/31/07 – 12/31/08						
	<u>12/31/07</u>	<u>06/30/08</u>	<u>09/30/08</u>	<u>12/31/08</u>	<u>4th QTR % Change</u>	<u>YTD % Change</u>
DJIA	13,264.82	11,350.01	10,850.66	8,776.39	-19.12%	-33.84%
S & P 500	1,468.36	1,280.00	1,164.74	903.25	-22.45%	-38.49%
NASDAQ	2,652.28	2,292.98	2,082.33	1,577.03	-24.27%	-40.54%
Russell 2000	766.03	689.66	679.58	499.45	-26.51%	-34.80%
DJ WORLD (xUS)	271.84	241.87	188.17	146.76	-22.01%	-46.01%
10 Year Treasury	4.03%	3.98%	3.83%	2.25%	-158 bp	-178bp
3 Month Treasury	3.24%	1.74%	0.91%	0.09%	-82 bp	-315bp
DJ Corp Bond Index	205.72	205.97	194.31	209.43	+7.78%	+1.80%
DJ AIG Commodity	184.96	233.03	167.77	117.24	-30.12%	-38.61%

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Annual Total Returns of Key Asset Classes 1988 – 2008

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	
Best ↑	Small Value Stocks 29.47%	Large Growth Stocks 38.42%	Bonds 8.96%	Small Growth Stocks 51.18%	Small Value Stocks 29.15%	Foreign Stocks 32.57%	Foreign Stocks 7.78%	Large Growth Stocks 38.13%	Large Growth Stocks 23.81%	Large Growth Stocks 26.52%	Large Growth Stocks 42.15%	Small Growth Stocks 43.02%	Small Value Stocks 22.61%	Small Value Stocks 14.62%	Bonds 10.22%	Small Growth Stocks 43.54%	Small Value Stocks 22.25%	Foreign Stocks 14.02%	Foreign Stocks 25.98%	Foreign Stocks 11.63%	Bonds 5.24%	Best ↑
	Foreign Stocks 28.20%	Large Growth Stocks 31.89%	Large Growth Stocks 8.50%	Small Growth Stocks 46.89%	Small Value Stocks 18.42%	Small Value Stocks 18.42%	Large Growth Stocks 22.98%	Large Growth Stocks 31.15%	Large Growth Stocks 37.55%	Large Growth Stocks 22.95%	Large Growth Stocks 33.30%	Large Growth Stocks 28.55%	Bonds 28.25%	Small Value Stocks 11.61%	Small Value Stocks 8.44%	Small Value Stocks -11.02%	Foreign Stocks 47.25%	Small Value Stocks 20.70%	Small Value Stocks 6.32%	Small Value Stocks 21.68%	Small Value Stocks -22.22%	
	Small Value Stocks 24.89%	Large Growth Stocks 28.13%	Small Value Stocks -3.11%	Small Value Stocks 43.70%	Small Value Stocks 15.32%	Small Value Stocks 18.19%	Small Value Stocks 1.32%	Small Value Stocks 36.96%	Small Value Stocks 22.02%	Small Value Stocks 31.77%	Small Value Stocks 20.00%	Small Value Stocks 26.50%	Small Value Stocks 16.01%	Small Value Stocks 2.49%	Small Value Stocks -15.66%	Small Value Stocks 46.02%	Small Value Stocks 18.33%	Small Value Stocks 4.91%	Small Value Stocks 20.85%	Small Value Stocks 7.05%	Small Value Stocks -33.79%	
	Large Value Stocks 21.87%	Small Growth Stocks 20.19%	Large Growth Stocks 6.85%	Large Growth Stocks 38.37%	Large Growth Stocks 7.77%	Large Growth Stocks 18.51%	Large Growth Stocks -0.84%	Large Growth Stocks 31.04%	Large Growth Stocks 21.37%	Large Growth Stocks 29.88%	Large Growth Stocks 14.89%	Large Growth Stocks 21.29%	Large Growth Stocks -3.02%	Large Growth Stocks -9.21%	Large Growth Stocks -20.44%	Large Growth Stocks 38.59%	Large Growth Stocks 15.71%	Large Growth Stocks 4.71%	Large Growth Stocks 18.37%	Large Growth Stocks 6.97%	Large Growth Stocks -34.91%	
	Small Growth Stocks 20.35%	Small Growth Stocks 16.25%	Small Growth Stocks -17.42%	Small Growth Stocks 30.47%	Small Growth Stocks 7.62%	Small Growth Stocks 13.37%	Small Growth Stocks -1.52%	Small Growth Stocks 28.44%	Small Growth Stocks 18.52%	Small Growth Stocks 22.20%	Small Growth Stocks 8.70%	Small Growth Stocks 21.01%	Small Growth Stocks -9.11%	Small Growth Stocks -11.69%	Small Growth Stocks -20.65%	Small Growth Stocks 31.80%	Small Growth Stocks 14.31%	Small Growth Stocks 4.55%	Small Growth Stocks 15.79%	Small Growth Stocks 5.40%	Small Growth Stocks -37.00%	
	Large Bonds 16.61%	Small Bonds 14.53%	Small Bonds -19.50%	Small Bonds 22.50%	Small Bonds 7.40%	Small Bonds 10.05%	Small Bonds -1.81%	Small Bonds 18.40%	Small Bonds 11.30%	Small Bonds 12.80%	Small Bonds 1.22%	Small Bonds 12.72%	Small Bonds -13.96%	Small Bonds -11.87%	Small Bonds -22.10%	Small Bonds 28.68%	Small Bonds 10.81%	Small Bonds 4.15%	Small Bonds 13.37%	Small Bonds 2.02%	Small Bonds -38.54%	
Worst ↓	Large Growth Stocks 11.95%	Small Growth Stocks 12.42%	Small Growth Stocks -21.77%	Small Growth Stocks 16.00%	Small Growth Stocks 5.09%	Small Growth Stocks 0.75%	Small Growth Stocks -2.44%	Small Growth Stocks 18.40%	Small Growth Stocks 6.05%	Small Growth Stocks 8.64%	Small Growth Stocks -2.55%	Small Growth Stocks -0.82%	Small Growth Stocks -22.08%	Small Growth Stocks -12.75%	Small Growth Stocks -23.59%	Small Growth Stocks 25.89%	Small Growth Stocks 6.14%	Small Growth Stocks 3.49%	Small Growth Stocks 11.04%	Small Growth Stocks -1.57%	Small Growth Stocks -38.21%	Worst ↓
	Bonds 7.89%	Foreign Stocks 10.53%	Foreign Stocks -23.46%	Foreign Stocks 12.14%	Foreign Stocks -12.18%	Foreign Stocks 1.63%	Foreign Stocks -2.97%	Foreign Stocks 11.21%	Foreign Stocks 3.64%	Foreign Stocks 1.78%	Foreign Stocks -6.46%	Foreign Stocks -1.44%	Foreign Stocks -22.47%	Foreign Stocks -21.46%	Foreign Stocks -30.29%	Foreign Stocks 4.10%	Foreign Stocks 4.31%	Foreign Stocks 2.47%	Foreign Stocks 4.33%	Foreign Stocks -6.71%	Foreign Stocks -43.09%	

Source: Standard & Poor's Compustat. Large Stocks are represented by the S&P 500. Large Growth Stocks are represented by S&P 500/BARRA Growth Index. Large Value Stocks are represented by the S&P 500/BARRA Value Index. Small Stocks are represented by the Russell 2000 Index. Small Growth Stocks are represented by the Russell 2000 Growth Index. Small Value Stocks are represented by the Russell 2000 Value Index. Foreign Stocks are represented by the MSCI EAFE Index, and Bonds are represented by the Lehman Brothers Aggregate Bond Index.

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2008 Eight Days to Remember *

June 6 -

Oil, Unemployment Soar

Dow closed at 12,209.51

Change in Points (394.64)

Percentage Change (3.13%)

- Worst Day (YTD) as oil jumped \$10.75 to \$138.54/bbl.
- Unemployment jumped to 5.5% from 5.0%

September 15 -

Lehman Collapses

Dow closed at 10,917.51

Change in Points (504.48)

Percentage Change (4.42%)

- Lehman declares bankruptcy
- AIG seeks government aid
- WAMU rumors

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2008 Eight Days to Remember * Continued

- September 29 - Dow's Biggest Point Loss Ever**
 Dow closed at 10,365.45
 Change in Points (777.68)
 Percentage Change (6.98%)
- House rejects \$700 billion financial sector bailout bill
- October 9 - Volatility Spikes**
 Dow closed at 8,579.19
 Change in Points (678.91)
 Percentage Change (7.33%)
- Worst Day in an eight-day slide
 - Treasury announces that it would purchase equity stakes in banks
 - CBOE volatility index rises to 64, the first time over 60

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2008 Eight Days to Remember * Continued

- October 13 - Biggest Gain Ever Stops 2,400 Point Slide**
 Dow closed at 9,387.61
 Gain in points +936.42
 Percentage change +11.1%
- Stocks rally after a series of global initiatives aimed at stimulating the economy
 - 15 European Banks agreed to inject capital and pump \$63 billion into 3 of the country's banks
- October 15 - Biggest Percentage Decline Since 1987**
 Dow closed at 8,577.91
 Change in Points (733.08)
 Percentage Change (7.87%)
- Ninth largest percentage decline ever due to gloomy economic reports
 - Retail sales suffered their largest drop in three years

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2008 Eight Days to Remember * Continued

November 5 & 6- After Obama wins, Dow plunges

Dow closed at 8,695.79

Change in Points (929.49)

Percentage change (9.66%)

- Stocks rose more than 300 points on Election Day but sold off on unemployment news as claims rose and the labor department reported that 1.2 million jobs have been lost.

December 1 - It's a Recession

Dow closed at 8,149.00

Change in Points (679.95)

Percentage Change (7.7%)

- The Bureau of Economic Research announced that the economy is in a recession. Economists predict the recession could last well into 2009.
- Holiday retail sales data point to a soft holiday period.

*Data obtained from CNN

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Dow's Jones Industrial Average 10 Worst Years

<u>DATE</u>	<u>CLOSE</u>	<u>NET CHANGE</u>	<u>% CHANGE</u>
1931	77.90	-86.68	-52.7%
1907	58.75	-35.60	-37.7%
2008	8,776.39	-4,488.43	-33.8%
1930	164.58	-83.90	-33.8%
1920	71.95	-35.28	-32.9%
1937	120.85	-59.05	-32.8%
1974	616.24	-234.62	-27.6%
1903	49.11	-15.18	-23.6%
1932	59.93	-17.97	-23.1%
1917	74.38	-20.62	-21.7%

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- **In addition, 2008 was a year in turmoil that personally impacted**
 - **Your House**
 - **Your Investments**
 - **Your Job**

- **2009 outlook has not improved**
 - **Slow recovery expected**

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WORST JANUARY IN S & P 500 HISTORY

S & P 500 JANUARY HISTORY

<u>MONTH</u>	<u>% CHANGE</u>	<u>WORST</u>
01/2009	- 8.57%	1
01/1970	-7.65%	2
01/1960	-7.15%	3
01/1939	-6.89%	4
01/1990	-6.88%	5
01/1978	-6.15%	6
01/2008	-6.12%	7
01/2000	-5.09%	8
01/1977	-5.05%	9
01/1941	-4.82%	10

Source: S&P

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<div> <div>Bear Markets</div> <div>S&P 500</div> </div>					
PEAK (START OF BEAR MARKET)	INDEX	BOTTOM (END OF BEAR MARKET)	INDEX	DURATION MONTHS	TOTAL DECLINE
DATE		DATE			
March 6, 1937	18.68	April 29, 1942	7.47	62	-60.0%
May 29, 1946	19.25	June 14, 1949	13.55	37	-29.6
August 2, 1956	49.64	October 22, 1957	38.98	15	-21.5
December 12, 1961	72.64	June 27, 1962	52.32	6	-28.0
February 9, 1966	94.06	October 7, 1966	73.20	8	-22.2
November 29, 1968	108.37	May 26, 1970	69.29	18	-36.1
January 11, 1973	120.24	October 3, 1974	69.28	21	-48.2
November 18, 1980	140.52	August 12, 1982	102.42	20	-27.1
August 25, 1987	336.77	December 4, 1987	223.92	3	-33.5
July 16, 1990	368.95	October 11, 1990	295.46	3	-19.9
March 24, 2000	1,527.46	October 9, 2002	776.76	31	-49.1
AVERAGE (Excludes 10/09/07 - 02/23/09 period noted below)				19	-34.1
October 9, 2007	1,565.12	February 23, 2009	743.33	16	-52.5 ₁₉
Source: Standard & Poor's Index Services					

Status of PSERS' Investments



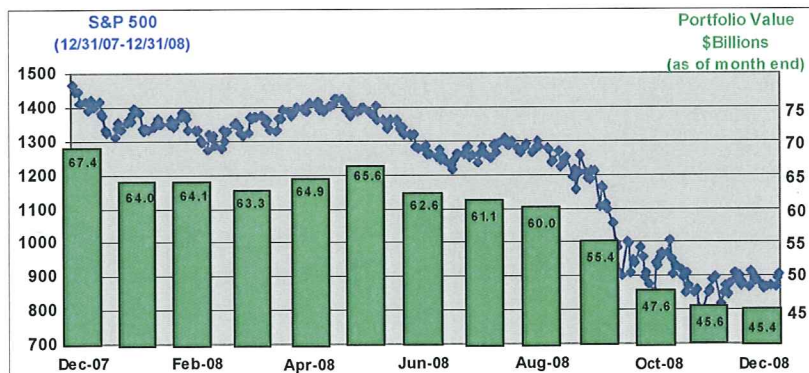
PSERS' Net Plan Assets as of:

June 30, 2002	\$43.6 Billion (audited)
March 31, 2003	\$38.3 Billion (unaudited)
June 30, 2003	\$42.5 Billion (audited)
June 30, 2004	\$48.5 Billion (audited)
June 30, 2005	\$52.1 Billion (audited)
June 30, 2006	\$57.0 Billion (audited)
June 30, 2007	\$67.5 Billion (audited)
June 30, 2008	\$62.7 Billion (audited)
September 30, 2008	\$54.7 Billion (unaudited)

* As of December 31, 2008 the net assets were estimated at \$45.4 billion (unaudited)

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PSERS Estimated Portfolio Value



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Deja vu

<u>PRIOR PEAK</u>	<u>PRIOR TROUGH</u>	<u>CHANGE IN NAV</u>	<u>% CHANGE</u>
8/2000 \$54.7b	3/2003 \$38.3b	\$-16.4b	- 30%
<u>PRIOR TROUGH</u>	<u>PRIOR PEAK</u>	<u>CHANGE IN NAV</u>	<u>% CHANGE</u>
3/2003 \$38.3b	10/2007 \$70.1b	+\$31.8b	+83%
<u>CURRENT PEAK</u>	<u>CURRENT TROUGH</u>	<u>CHANGE IN NAV</u>	<u>% CHANGE</u>
10/2007 \$70.1b	1/2009 \$43.5b	\$-26.6b	-38%

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LARGEST STATE SPONSORED DEFINED BENEFIT SYSTEMS (Millions)

	<u>2008*</u>	<u>2007*</u>	<u>CHANGE NAV</u>
1. CALPERS	\$213,519	\$253,551	\$-40,032
2. CALSTRS	147,021	176,098	-29,077
3. NEW YORK STATE COMM.	138,425	164,363	-25,938
4. FLORIDA	114,510	138,439	-23,929
5. TEXAS TEACHERS	95,982	114,878	-18,896
6. NEW YORK STATE TEACHERS	88,487	106,042	-17,555
7. WISCONSIN INVESTMENT BD.	72,493	89,328	-16,835
8. NEW JERSEY	70,826	82,780	-11,954
9. NORTH CAROLINA	65,924	77,384	-11,460
10. OHIO STATE TEACHERS	62,611	78,311	-15,700
11. OHIO PUBLIC EMPLOYEES	57,940	84,123	-26,183
12. PSERS	54,666	68,678	-14,012

* As of September 30, 2008

SOURCE: Pensions & Investments

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PSERS' Investment Rates of Return as of:

- FY 1999/2000 - 11.9%
- FY 2000/2001 - (7.4)%
- FY 2001/2002 - (5.3)%
- FY 2002/2003 - 2.7%
- FY 2003/2004 - 19.67%
- FY 2004/2005 - 12.87%
- FY 2005/2006 - 15.26%
- FY 2006/2007 - 22.93%
- FY 2007/2008 - (2.82)%

Below PSERS' annual actuarial earnings assumption of 8.5%, therefore resulting in an actuarial loss

As of December 31, 2008
estimated calendar year
rate of return was
(29.68)%

As of December 31, 2008
estimated fiscal year
rate of return was
(25.50)%

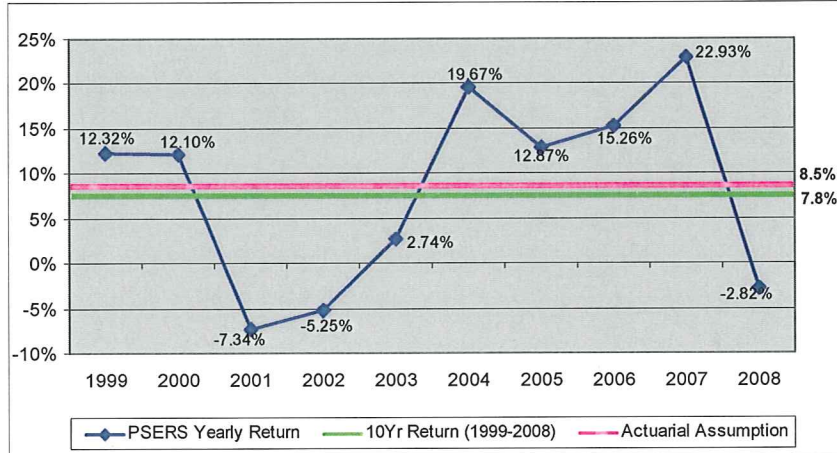
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PSERS Total Net Investment Income

■ FY 1999/2000 -	\$5,765,133
■ FY 2000/2001 -	(\$3,843,713)
■ FY 2001/2002 -	(\$2,523,025)
■ FY 2002/2003 -	\$1,022,467
■ FY 2003/2004 -	\$8,244,604
■ FY 2004/2005 -	\$6,081,497
■ FY 2005/2006 -	\$7,942,639
■ FY 2006/2007 -	\$12,702,721
■ FY 2007/2008 -	(\$1,775,585)
■ TOTAL	\$33,616,738 net investment gain

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PSERS Fiscal Year Returns 1999-2008



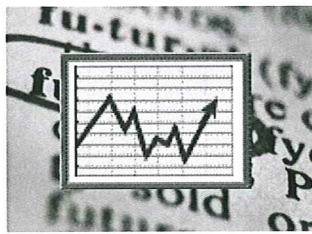
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PSERS Performance Comparison Total Returns of Total Fund Public Plans Periods Ended 12/31/08

	<u>Q</u>	<u>FYTD</u>	<u>YEAR</u>	<u>2 YEARS</u>	<u>3 YEARS</u>	<u>5 YEARS</u>	<u>10 YEARS</u>
PSERS (Rank)	-16.25 (93)	-25.50 (97)	-29.68 (93)	-10.54 (66)	-1.88 (39)	3.88 (7)	4.15 (14)
Policy Index (Rank)	-13.48 (63)	-22.09 (79)	-25.57 (70)	-9.37 (53)	-1.79 (37)	2.95 (24)	2.99 (43)
Bp Difference	-277	-341	-411	-117	-9	93	116
Median	-11.95	-18.65	-23.47	-9.25	-2.26	1.60	2.83
Bp Difference	-430	-685	-621	-129	38	228	132
# of Funds	118	117	116	114	112	103	74

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What is Looming in the Future?



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Current Employer Contribution Rate



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Employer Contribution Rate

- **Current employer contribution rate**
 - The FY 2008/2009 rate is 4.76%
 - The 4.76% rate is composed of a 0.76% rate for health insurance premium assistance and a pension rate of 4.00%
- **The Commonwealth reimburses school employers for not less than 50% of the employer contribution rate**
 - Statewide average is 54/46% split with the Commonwealth paying 54%

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Employer Contribution Rate

- **The employer contribution rate for FY 2009/2010 was certified at the PSERS' Board meeting on December 12, 2008**
 - The FY 2009/2010 rate is 4.78%
 - The 4.78% rate is composed of a 0.78% rate for health insurance premium assistance and a pension rate of 4.00%
 - **The pension component of the employer contribution rate has been below the employer normal cost for 12 years**
 - The "employer normal cost" is the amount needed from the school employers to fund the benefits earned by the active members for that year
 - It can be thought of as the minimum payment that would be made by school employers if the System's actual experience perfectly matched its economic and demographic operating assumptions

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Employer Contribution Rate

- At its January 23, 2009 meeting, the Board changed the actuarial investment rate of return assumption for the Fund
 - Effective for the June 30, 2008 actuarial valuation the investment rate of return assumption shall be reduced from 8.50% to 8.25%
 - Effective for the June 30, 2009 actuarial valuation the investment rate of return assumption shall be reduced from 8.25% to 8.00%
- **NOTE: The employer contribution rate for FY 2009/2010 will not be affected by the change in the rate of return assumption**
 - PSERS' funded status and the projected rate spike in FY 2012/2013 will be affected by this change
 - PSERS' funded status is 86.0% as of June 30, 2008, up from 85.8% as of June 30, 2007

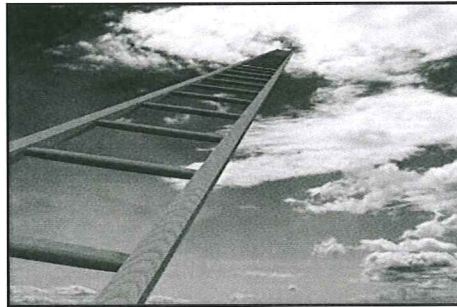
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Employer Contribution Rate

- Lowering the investment rate of return assumption is an important step because:
 - It provides additional transparency about PSERS' funded status and will provide a more accurate picture for future legislative efforts to resolve the employer contribution rate spike
 - While PSERS has always take a long term perspective on its return assumption, the extent, the speed, and global nature of the current downturn appears to be historic and an indicator of a turning point for the US and global economy
 - PSERS had one of the highest return assumptions in the country and these changes bring PSERS to the median return assumption that is used by most public pension funds
 - It results in increased employer contributions prior to the projected rate spike and thus provides additional liquidity to PSERS
 - It marginally reverses the artificial suppression of the employer contribution rate below the normal cost notwithstanding unfunded liability
 - It mitigates the current negative arbitrage caused by this suppression and actually results in some pre-payment of the unfunded liability before FY 2012/2013

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Projected Employer Contribution Rate Spike



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Employer Contribution Rate Spike

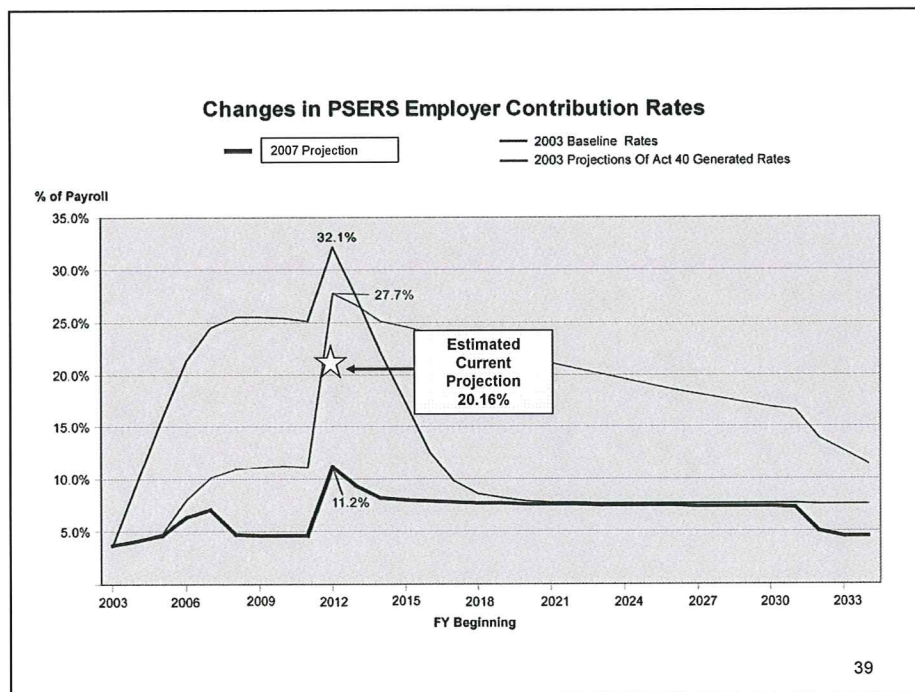
- **Rate Spike Estimate**
 - Based on December 12, 2008 Board meeting the estimate for the FY 2012/2013 rate spike was 16.40% (based on the June 30, 2008 actuarial valuation)
 - Based on the January 23, 2009 Board meeting and the changes to the investment rate of return assumption, the estimate for the FY 2012/2013 rate spike is 20.16% (based on the June 30, 2008 actuarial valuation)
 - The projected rate spike in FY 2012/2013 is still below the original rate spike of 27.73%

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Public School Employees' Retirement System of Pennsylvania											
Projection of Contribution Rates and Funded Ratios As of June 30, 2008											
Market Returns and Pension Rate Floors Set by User											
Contributions Determined under Current Law											
Fiscal Year Ending June	Appropriation Payroll (thousands)	Fiscal Year Market Rate of Return	Pension Rate Floor	Employee Contribution Rate	Employer Normal Cost	Unfunded Liability Rate	Preliminary Employer Pension Rate	Health Care Contribution	Total Employer Contribution Rate	Funded Ratio	Unfunded Accrued Liability (\$ Millions)
2007	\$ 11,821,951	22.93 %	4.00 %	7.21 %	6.62 %	(0.95) %	5.67 %	0.74 %	6.46 %	85.8 %	\$ 9,438.0
2008	12,881,244	(2.82)	4.00	7.25	6.68	(0.24)	6.44	0.69	7.13	87.9	8,376.0
2009	12,500,000	8.50	4.00	7.29	6.68	(3.37)	3.31	0.76	4.76	88.9	7,966.5
2010	12,899,000	8.50	4.00	7.32	6.66	(4.75)	1.91	0.78	4.78	89.5	7,862.2
2011	13,297,917	8.50	4.00	7.34	6.61	(5.78)	0.83	0.76	4.76	89.0	8,492.6
2012	13,703,700	8.50	4.00	7.36	6.58	(6.63)	(0.05)	0.75	4.75	86.5	10,860.4
2013	14,132,543	8.50	4.00	7.38	6.55	9.11	15.66	0.74	16.40	87.3	10,504.0
2014	14,586,335	8.50	4.00	7.40	6.52	8.81	15.33	0.73	16.06	88.2	10,147.7
2015	15,066,759	8.50	4.00	7.41	6.51	7.64	14.15	0.72	14.87	88.8	9,900.7
2016	15,573,822	8.50	4.00	7.43	6.48	7.41	13.89	0.70	14.59	89.5	9,615.0
2017	16,119,772	8.50	4.00	7.44	6.46	7.19	13.65	0.69	14.34	90.2	9,278.9
2018	16,711,215	8.50	4.00	7.45	6.44	6.95	13.39	0.66	14.05	90.9	8,909.9
2019	17,349,067	8.50	4.00	7.46	6.42	6.70	13.12	0.65	13.77	91.6	8,507.3
2020	18,031,134	8.50	4.00	7.46	6.41	6.45	12.86	0.63	13.49	92.3	8,069.0
2021	18,751,940	8.50	4.00	7.47	6.39	6.20	12.59	0.63	13.22	93.0	7,592.6
2022	19,513,328	8.50	4.00	7.47	6.38	5.96	12.34	0.63	12.97	93.7	7,075.5
2023	20,315,347	8.50	4.00	7.48	6.37	5.72	12.09	0.63	12.72	94.4	6,514.2
2024	21,156,474	8.50	4.00	7.48	6.36	5.50	11.86	0.63	12.49	95.1	5,905.2
2025	22,033,366	8.50	4.00	7.48	6.35	5.28	11.63	0.63	12.26	95.9	5,244.3
2026	22,945,071	8.50	4.00	7.48	6.34	5.07	11.41	0.63	12.04	96.6	4,527.2
2027	23,888,648	8.50	4.00	7.49	6.33	4.87	11.20	0.63	11.83	97.3	3,749.2
2028	24,860,052	8.50	4.00	7.49	6.32	4.68	11.00	0.63	11.63	98.0	2,905.1
2029	25,860,712	8.50	4.00	7.49	6.31	4.50	10.81	0.63	11.44	98.7	1,989.2
2030	26,890,536	8.50	4.00	7.49	6.31	4.32	10.63	0.63	11.26	99.4	995.5
2031	27,952,132	8.50	4.00	7.49	6.30	4.16	10.46	0.63	11.09	100.1	(82.7)
2032	29,049,160	8.50	4.00	7.49	6.29	4.00	10.29	0.63	10.92	100.8	(1,252.6)
2033	30,180,558	8.50	4.00	7.49	6.29	1.64	7.93	0.63	8.56	101.1	(1,853.8)
2034	31,352,307	8.50	4.00	7.49	6.28	0.67	6.95	0.63	7.58	101.2	(2,220.0)
2035	32,575,992	8.50	4.00	7.50	6.26	(0.36)	5.90	0.63	6.53	101.2	(2,291.2)
2036	33,858,884	8.50	4.00	7.50	6.25	(1.21)	5.04	0.63	5.67	101.1	(2,075.5)
2037	35,196,711	8.50	4.00	7.50	6.24	(2.25)	3.99	0.63	4.63	100.7	(1,464.8)
2038	36,596,245	8.50	4.00	7.50	6.23	(2.38)	3.85	0.63	4.63	100.4	(773.8)

Public School Employees' Retirement System of Pennsylvania											
Projection of Contribution Rates and Funded Ratios As of June 30, 2008											
Market Returns and Pension Rate Floors Set by User											
Contributions Determined under Current Law											
Fiscal Year Ending June	Appropriation Payroll (thousands)	Fiscal Year Market Rate of Return	Pension Rate Floor	Employee Contribution Rate	Employer Normal Cost	Unfunded Liability Rate	Preliminary Employer Pension Rate	Health Care Contribution	Total Employer Contribution Rate	Funded Ratio	Unfunded Accrued Liability (\$ Millions)
2007	\$ 11,821,951	22.93 %	4.00 %	7.21 %	6.62 %	(0.95) %	5.67 %	0.74 %	6.46 %	85.8 %	\$ 9,438.0
2008	12,881,244	(2.82)	4.00	7.25	6.68	(0.24)	6.44	0.69	7.13	86.0	9,923.5
2009	12,402,702	8.25	4.00	7.29	6.68	(3.37)	3.31	0.76	4.76	85.0	11,276.7
2010	12,899,000	8.00	4.00	7.32	7.35	(3.72)	3.63	0.78	4.78	85.2	11,524.8
2011	13,297,917	8.00	4.00	7.34	8.03	(3.73)	4.30	0.76	5.06	84.4	12,576.4
2012	13,703,700	8.00	4.00	7.36	8.00	(4.43)	3.57	0.75	4.75	81.5	15,443.1
2013	14,132,543	8.00	4.00	7.38	7.97	11.45	19.42	0.74	20.16	82.6	15,067.9
2014	14,586,335	8.00	4.00	7.40	7.94	11.39	19.33	0.73	20.06	83.6	14,645.5
2015	15,066,759	8.00	4.00	7.41	7.93	10.15	18.08	0.72	18.80	84.5	14,327.1
2016	15,573,822	8.00	4.00	7.43	7.90	9.84	17.74	0.70	18.44	85.4	13,966.5
2017	16,119,772	8.00	4.00	7.44	7.88	9.53	17.41	0.69	18.10	86.3	13,552.8
2018	16,711,215	8.00	4.00	7.45	7.86	9.20	17.06	0.66	17.72	87.2	13,102.1
2019	17,349,067	8.00	4.00	7.46	7.85	8.87	16.72	0.65	17.37	88.1	12,613.5
2020	18,031,134	8.00	4.00	7.46	7.84	8.54	16.38	0.63	17.01	89.0	12,084.4
2021	18,751,940	8.00	4.00	7.47	7.82	8.21	16.03	0.63	16.66	89.8	11,512.3
2022	19,513,328	8.00	4.00	7.47	7.82	7.89	15.71	0.63	16.34	90.7	10,894.3
2023	20,315,347	8.00	4.00	7.48	7.80	7.58	15.38	0.63	16.01	91.6	10,226.6
2024	21,156,474	8.00	4.00	7.48	7.79	7.28	15.07	0.63	15.70	92.5	9,505.5
2025	22,033,366	8.00	4.00	7.48	7.79	6.99	14.78	0.63	15.41	93.3	8,726.7
2026	22,945,071	8.00	4.00	7.48	7.78	6.71	14.49	0.63	15.12	94.2	7,885.6
2027	23,888,648	8.00	4.00	7.49	7.76	6.44	14.20	0.63	14.83	95.1	6,977.1
2028	24,860,052	8.00	4.00	7.49	7.76	6.19	13.95	0.63	14.58	95.9	5,996.0
2029	25,860,712	8.00	4.00	7.49	7.75	5.95	13.70	0.63	14.33	96.8	4,936.4
2030	26,890,536	8.00	4.00	7.49	7.74	5.72	13.46	0.63	14.09	97.6	3,792.0
2031	27,952,132	8.00	4.00	7.49	7.74	5.51	13.25	0.63	13.88	98.4	2,556.1
2032	29,049,160	8.00	4.00	7.49	7.73	5.30	13.03	0.63	13.66	99.3	1,221.3
2033	30,180,558	8.00	4.00	7.49	7.72	2.97	10.69	0.63	11.32	99.8	421.8
2034	31,352,307	8.00	4.00	7.49	7.71	1.99	9.70	0.63	10.33	100.1	(166.8)
2035	32,575,992	8.00	4.00	7.50	7.69	0.95	8.64	0.63	9.27	100.3	(489.8)
2036	33,858,884	8.00	4.00	7.50	7.68	0.09	7.77	0.63	8.40	100.3	(557.8)
2037	35,196,711	8.00	4.00	7.50	7.67	(0.95)	6.72	0.63	7.35	100.1	(267.2)
2038	36,596,245	8.00	4.00	7.50	7.66	(1.13)	6.53	0.63	7.16	99.9	125.0

Interactive spreadsheets\2008\FundRatProj - 2008 Val using B.25% in 2008 and 8% after 2008 via Results - 2008



Employer Contribution Rate Spike

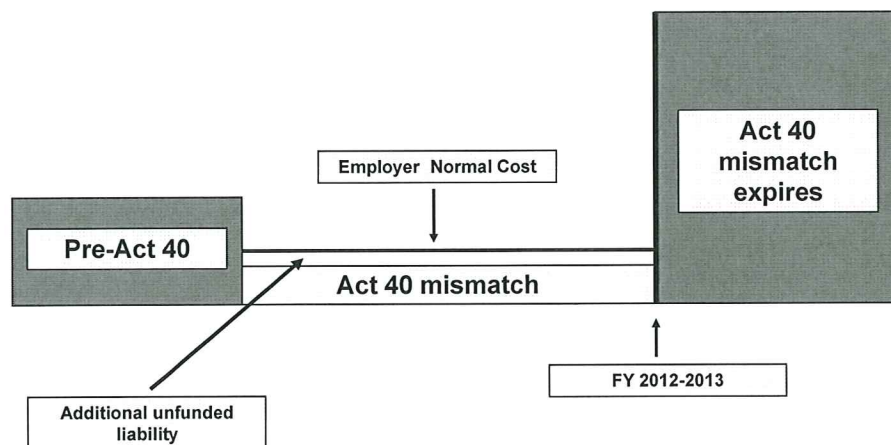
- The projected sharp rise in PSERS' employer contribution rate from 4.75% in FY 2011-2012 to an estimated 20.16% in FY 2012/2013 (up from last year's projection of 4.74% to 11.23%), is primarily the result of:
 - The unfunded liabilities created by
 - The FYs' 2001-2003 down investment markets
 - Act 2001-9 multiplier increase
 - The Act 2002-38 phased COLA
 - The (2.82)% investment return for FY 2007-2008
 - The changes made by Acts 2002-38 and 2003-40 to PSERS' actuarial funding methodologies

Employer Contribution Rate Spike

- Without going into details about the funding changes of Act 38 and Act 40, each had the effect of pushing off liability to the future to provide fiscal relief to both the Commonwealth and school employers during recessionary times
- Of the two, Act 40 had the greatest impact as it created a mismatch of the amortization of PSERS' actuarial gains and losses
 - Pre-Act 9 gains and losses remained on a 10 year amortization schedule
 - Post-Act 9 gains and losses were shifted to a 30 year amortization schedule

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Employer Contribution Rate Spike



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Article on Bloomberg on January 13, 2009 State Pensions' \$865 billion Loss Affects New Workers

Summary of the key points of the article follows:

- **State governments from Rhode Island to California have run up estimated pension-fund losses of \$865.1 billion, forcing some to cut benefits for new hires.**
- **Assets for 109 state funds declined 37 percent to \$1.46 trillion over the 14 months ended Dec. 16, [2008] according to the Center for Retirement Research at Boston College. The Standard & Poor's 500 Index of stocks fell 41 percent in the period.**
 - **"Not a whole lot of people get too excited about pension funds," Philadelphia Mayor Michael Nutter said in an interview. "But if you have to pay those costs, they do grab your attention."**
- **The \$865 billion in losses, which exceed the \$700 billion Troubled Asset Relief Program that Congress approved in October, comes as states face budget deficits totaling \$42 billion.**

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- **The Boston College center analyzed holdings reported on financial statements from 2006, when the 109 funds had about 20.4 million members.**
 - **To return to 2007 actuarial funding levels by 2010, the 109 funds would need annual returns of 52 percent on assets, the analysis found.**
 - **Annual returns of 18 percent would achieve the goal by 2013, the center said.**
 - **The projections are based on a 5.7 percent annual increase in liabilities and a \$50 billion increase in assets from contributions above annual payouts.**
 - **"We can't make enough on investments to drive out of this hole if all you do is depend on investments," said Mike Burnside, executive director of the Kentucky Retirement Systems in Frankfort.**

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- **In Rhode Island, state and local governments were scheduled to make contributions equaling 25 percent of their payroll expenses to retirement plans in 2010, said Frank Karpinski, the executive director. Barring a recovery, the contributions may increase to as much as 30 percent in 2011, he said.**
- **"That is kind of the elephant in the room," he said. "Where are the funds going to come from to make these kinds of required contributions?"**

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Public School Employees' Retirement System of Pennsylvania Projection of Contribution Rates and Funded Ratios As of June 30, 2008 Market Returns and Pension Rate Floors Set by User Contributions Determined under Current Law												
Fiscal Year Ending June	Appropriation Payroll (thousands)	Fiscal Year Market Rate of Return	Pension Rate Floor	Employee Contribution Rate	Employer Normal Cost	Unfunded Liability Rate	Preliminary Employer Pension Rate	Health Care Contribution	Total Employer Contribution Rate	Funded Ratio	Unfund Accrued Liability (\$ Millions)	
2007	\$ 11,821,951	22.93 (2.82)	4.00 %	7.21 %	6.62 %	(0.95) %	5.67 %	0.74 %	6.46 %	85.8 %	\$ 9,438.0	
2008	12,881,244	(2.82)	4.00	7.25	6.68	(0.24)	6.44	0.69	7.13	86.0	9,923.5	
2009	12,402,702	(25.50)	4.00	7.29	6.68	(3.37)	3.31	0.76	4.76	79.5	15,399.7	
2010	12,899,000	8.00	4.00	7.32	7.35	(3.72)	3.63	0.78	4.78	73.9	20,349.0	
2011	13,297,917	8.00	4.00	7.34	8.03	(0.75)	7.28	0.76	8.04	67.5	26,296.5	
2012	13,703,700	8.00	4.00	7.36	8.00	1.52	9.52	0.75	10.27	59.0	34,250.5	
2013	14,132,543	8.00	4.00	7.38	7.97	20.32	28.29	0.74	29.03	55.0	38,962.9	
2014	14,586,335	8.00	4.00	7.40	7.94	23.16	31.10	0.73	31.83	55.9	39,490.4	
2015	15,066,759	8.00	4.00	7.41	7.93	24.61	32.54	0.72	33.26	57.4	39,485.4	
2016	15,573,822	8.00	4.00	7.43	7.90	24.30	32.20	0.70	32.90	59.2	39,184.6	
2017	16,119,772	8.00	4.00	7.44	7.88	23.80	31.68	0.69	32.37	61.1	38,632.5	
2018	16,711,215	8.00	4.00	7.45	7.86	23.14	31.00	0.66	31.66	63.1	37,910.7	
2019	17,349,067	8.00	4.00	7.46	7.85	22.38	30.23	0.65	30.88	65.2	37,091.5	
2020	18,031,134	8.00	4.00	7.46	7.84	21.56	29.40	0.63	30.03	67.2	36,186.1	
2021	18,751,940	8.00	4.00	7.47	7.82	20.75	28.57	0.63	29.20	69.3	35,197.4	
2022	19,513,328	8.00	4.00	7.47	7.82	19.94	27.76	0.63	28.39	71.3	34,124.7	
2023	20,315,347	8.00	4.00	7.48	7.80	19.16	26.96	0.63	27.59	73.3	32,964.0	
2024	21,156,474	8.00	4.00	7.48	7.79	18.40	26.19	0.63	26.82	75.3	31,709.4	
2025	22,033,366	8.00	4.00	7.48	7.79	17.67	25.46	0.63	26.09	77.2	30,353.9	
2026	22,945,071	8.00	4.00	7.48	7.78	16.96	24.74	0.63	25.37	79.1	28,889.8	
2027	23,888,648	8.00	4.00	7.49	7.76	16.29	24.05	0.63	24.68	81.0	27,308.4	
2028	24,860,052	8.00	4.00	7.49	7.76	15.66	23.42	0.63	24.05	82.9	25,600.5	
2029	25,860,712	8.00	4.00	7.49	7.75	15.05	22.80	0.63	23.43	84.8	23,755.9	
2030	26,890,536	8.00	4.00	7.49	7.74	14.48	22.22	0.63	22.85	86.6	21,763.7	
2031	27,952,132	8.00	4.00	7.49	7.74	13.93	21.67	0.63	22.30	88.4	19,612.1	
2032	29,049,160	8.00	4.00	7.49	7.73	13.40	21.13	0.63	21.76	90.2	17,288.4	
2033	30,180,558	8.00	4.00	7.49	7.72	10.77	18.49	0.63	19.12	91.6	15,421.0	
2034	31,352,307	8.00	4.00	7.49	7.71	9.49	17.20	0.63	17.83	92.8	13,678.9	
2035	32,575,992	8.00	4.00	7.50	7.69	8.17	15.86	0.63	16.49	93.9	12,110.2	
2036	33,858,884	8.00	4.00	7.50	7.68	7.04	14.72	0.63	15.35	94.8	10,696.9	
2037	35,196,711	8.00	4.00	7.50	7.67	5.73	13.40	0.63	14.03	95.5	9,534.5	
2038	36,596,245	8.00	4.00	7.50	7.66	5.30	12.96	0.63	13.59	96.2	8,357.5	

Public School Employees' Retirement System of Pennsylvania Projection of Contribution Rates and Funded Ratios As of June 30, 2008 Market Returns and Pension Rate Floors Set by User Contributions Determined under Current Law												
Fiscal Year Ending June	Appropriation Payroll (thousands)	Fiscal Year Market Rate of Return	Pension Rate Floor	Employee Contribution Rate	Employer Normal Cost	Unfunded Liability Rate	Preliminary Employer Pension Rate	Health Care Contribution	Total Employer Contribution Rate	Funded Ratio	Unfunded Accrued Liability (\$ Millions)	
2007	\$ 11,821,951	22.93 %	4.00 %	7.21 %	6.62 %	(0.95) %	5.67 %	0.74 %	6.46 %	85.8 %	\$ 9,438.0	
2008	12,881,244	(2.82)	4.00	7.25	6.68	(0.24)	6.44	0.69	7.13	86.0	9,923.5	
2009	12,402,702	(30.00)	4.00	7.29	6.68	(3.37)	3.31	0.76	4.76	78.8	15,949.4	
2010	12,899,000	8.00	4.00	7.32	7.35	(3.72)	3.63	0.78	4.78	72.4	21,525.6	
2011	13,297,917	8.00	4.00	7.34	8.03	(0.36)	7.67	0.76	8.43	65.2	28,125.9	
2012	13,703,700	8.00	4.00	7.36	8.06	2.31	10.31	0.75	11.06	56.1	36,750.0	
2013	14,132,543	8.00	4.00	7.38	7.97	21.51	29.48	0.74	30.22	51.3	42,140.1	
2014	14,586,335	8.00	4.00	7.40	7.94	24.72	32.66	0.73	33.39	52.3	42,794.3	
2015	15,066,759	8.00	4.00	7.41	7.93	26.54	34.47	0.72	35.19	53.8	42,831.1	
2016	15,573,822	8.00	4.00	7.43	7.90	26.22	34.12	0.70	34.82	55.7	42,538.4	
2017	16,119,772	8.00	4.00	7.44	7.88	25.70	33.58	0.69	34.27	57.8	41,968.0	
2018	16,711,215	8.00	4.00	7.45	7.86	25.00	32.86	0.66	33.52	59.9	41,210.2	
2019	17,349,067	8.00	4.00	7.46	7.85	24.17	32.02	0.65	32.67	62.1	40,347.0	
2020	18,031,134	8.00	4.00	7.46	7.84	23.29	31.13	0.63	31.76	64.4	39,391.5	
2021	18,751,940	8.00	4.00	7.47	7.82	22.41	30.23	0.63	30.86	66.5	38,347.4	
2022	19,513,328	8.00	4.00	7.47	7.82	21.55	29.37	0.63	30.00	68.7	37,214.2	
2023	20,315,347	8.00	4.00	7.48	7.80	20.70	28.50	0.63	29.13	70.9	35,987.9	
2024	21,156,474	8.00	4.00	7.48	7.79	19.88	27.67	0.63	28.30	73.0	34,662.4	
2025	22,033,366	8.00	4.00	7.48	7.79	19.09	26.88	0.63	27.51	75.1	33,230.2	
2026	22,945,071	8.00	4.00	7.48	7.78	18.33	26.11	0.63	26.74	77.2	31,683.2	
2027	23,888,648	8.00	4.00	7.49	7.76	17.61	25.37	0.63	26.00	79.2	30,012.3	
2028	24,860,052	8.00	4.00	7.49	7.76	16.92	24.68	0.63	25.31	81.2	28,207.7	
2029	25,860,712	8.00	4.00	7.49	7.75	16.26	24.01	0.63	24.64	83.2	26,258.7	
2030	26,890,536	8.00	4.00	7.49	7.74	15.64	23.38	0.63	24.01	85.2	24,153.7	
2031	27,952,132	8.00	4.00	7.49	7.74	15.05	22.79	0.63	23.42	87.1	21,880.4	
2032	29,049,160	8.00	4.00	7.49	7.73	14.48	22.21	0.63	22.84	89.0	19,425.1	
2033	30,180,558	8.00	4.00	7.49	7.72	11.81	19.53	0.63	20.16	90.5	17,415.7	
2034	31,352,307	8.00	4.00	7.49	7.71	10.49	18.20	0.63	18.83	91.9	15,520.1	
2035	32,575,992	8.00	4.00	7.50	7.69	9.14	16.83	0.63	17.46	93.1	13,785.7	
2036	33,858,884	8.00	4.00	7.50	7.68	7.96	15.64	0.63	16.27	94.1	12,193.4	
2037	35,196,711	8.00	4.00	7.50	7.67	6.62	14.29	0.63	14.92	95.0	10,837.7	
2038	36,596,245	8.00	4.00	7.50	7.66	6.16	13.82	0.63	14.45	95.8	9,452.0	

What does the future hold?

- Continued uncertain economy
- Continued media coverage of PSERS and SERS
 - Debate between those who have pensions and those who do not
 - Rising contributions needed from employers/ Commonwealth taxpayers
- Possible legislation to solve funding issues at PSERS and SERS
 - Possibly in the second half of the year- after Budget passes
- Will discuss potential options further in the webcast

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Estimating Your Future Retirement Liability

Charles Peterson, PRSBA
Director of Cooperative Business Services &
Operations, Central Susquehanna IU #1

See Spreadsheet



Pennsylvania Association of School Business Officials
Developing educational leaders in school operations.

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Cost Reduction Strategies

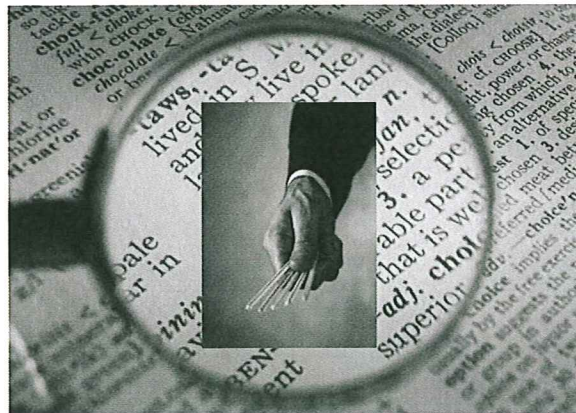
- Designate fund balance
- Soften the blow of future costs by maintaining current employer contribution rate
- Plan a stepped increase in the local share to gradually meet the 2012-13 FY and beyond increases
- Early retirement incentives



Pennsylvania Association of School Business Officials
Developing educational leaders in school operations.

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State Remedies What are Potential Options?



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State Remedies

- Although Acts 38 and 40 were criticized, the Acts were intended to provide fiscal “breathing room” to both the Commonwealth and school employers as a result of 2001-2003 down markets, so that a more permanent and sustainable solution could be found to PSERS’ funding issues
- To date, little has been done
 - Positive
 - 4.00% employer rate floor imposed
 - Increased awareness of pension funding issues through the media and meetings with legislators, employers, and member groups
 - Negative
 - Normal cost rate floor rejected
 - Below normal cost funding continues
 - Compounding of 2001-2003 investment losses with 2008-2009 investment losses
- Bottom line, time has run out as we move closer to the FY 2012-2013 significant employer rate increase
- So what can be done?

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State Remedies

- Fundamentally, there are only three ways to remedy funding issues at the pension fund
 - Increase Funding to the System
 - Decrease/Cut Liabilities of the System
 - Defer the Liabilities of the System

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State Remedies

■ Increase Funding to the System:

■ Increased Employer Contributions

- Employer rate are already projected to increase significantly in FY 2012-2013 and potentially above the original rate spike of 27.73%
- Higher employer contribution rates are expected to continue well into the future beyond FY 2012-2013
- Unlikely the Commonwealth and School Employers can afford these increased costs without significant tax increases

■ Increased Employee Contributions

- Can only occur prospectively due to constitutional impairment of contract issues, therefore not a significant impact on current unfunded liabilities

■ Increased Investment Returns

- Under current market conditions, unlikely to occur
- Therefore, at this point the System cannot earn its way out of the projected sharp increase in the employer contribution rate

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Public School Employees' Retirement System of Pennsylvania Projection of Contribution Rates and Funded Ratios As of June 30, 2008 Market Returns and Pension Rate Floors Set by User Contributions Determined under Current Law												
Market Returns Scenario 1												
Fiscal Year Ending June	Appropriation Payroll (thousands)	Fiscal Year Market Rate of Return	Pension Rate Floor	Employee Contribution Rate	Employer Normal Cost	Unfunded Liability Rate	Preliminary Employer Pension Rate	Health Care Contribution	Total Employer Contribution Rate	Projected Total Employer Contribution (thousands)	Funded Ratio	
2007	\$ 11,821,951	22.93	4.00 %	7.21 %	6.62 %	(0.95) %	5.67 %	0.74 %	6.46 %		85.8 %	
2008	12,881,244	(2.82)	4.00	7.25	6.68	(0.24)	6.44	0.69	7.13		86.0	
2009	12,402,702	35.00	4.00	7.29	6.68	(3.37)	3.31	0.76	4.76	\$ 590,369	89.4	
2010	12,899,000	35.00	4.00	7.32	7.35	(3.72)	3.63	0.78	4.78	616,572	99.6	
2011	13,297,917	35.00	4.00	7.34	8.03	(6.09)	1.94	0.76	4.76	632,981	116.4	
2012	13,703,700	8.00	4.00	7.36	8.00	(12.12)	(4.12)	0.75	4.75	650,926	132.2	
2013	14,132,543	8.00	4.00	7.38	7.97	(5.52)	2.45	0.74	4.74	669,883	150.3	
2014	14,586,335	8.00	4.00	7.40	7.94	(15.23)	(7.29)	0.73	4.73	689,934	165.5	
2015	15,066,759	8.00	4.00	7.41	7.93	(25.27)	(17.34)	0.72	4.72	711,151	176.5	
2016	15,573,822	8.00	4.00	7.43	7.90	(32.87)	(24.97)	0.70	4.70	731,970	181.6	
2017	16,119,772	8.00	4.00	7.44	7.88	(38.30)	(30.42)	0.69	4.69	756,017	186.2	
2018	16,711,215	8.00	4.00	7.45	7.86	(40.64)	(32.78)	0.66	4.66	778,743	190.6	
2019	17,349,067	8.00	4.00	7.46	7.85	(42.95)	(35.10)	0.65	4.65	806,732	194.9	
2020	18,031,134	8.00	4.00	7.46	7.84	(45.04)	(37.20)	0.63	4.63	834,842	199.1	
2021	18,751,940	8.00	4.00	7.47	7.82	(47.06)	(39.24)	0.63	4.63	868,215	203.6	
2022	19,513,328	8.00	4.00	7.47	7.82	(49.07)	(41.25)	0.63	4.63	903,467	208.2	
2023	20,315,347	8.00	4.00	7.48	7.80	(51.14)	(43.34)	0.63	4.63	940,601	212.9	
2024	21,156,474	8.00	4.00	7.48	7.79	(53.29)	(45.50)	0.63	4.63	979,545	217.9	
2025	22,033,366	8.00	4.00	7.48	7.79	(55.53)	(47.74)	0.63	4.63	1,020,145	223.2	
2026	22,945,071	8.00	4.00	7.48	7.78	(57.88)	(50.10)	0.63	4.63	1,062,357	228.7	
2027	23,888,648	8.00	4.00	7.49	7.76	(60.35)	(52.59)	0.63	4.63	1,106,044	234.5	
2028	24,860,052	8.00	4.00	7.49	7.76	(62.98)	(55.22)	0.63	4.63	1,151,020	240.7	
2029	25,860,712	8.00	4.00	7.49	7.75	(65.75)	(58.00)	0.63	4.63	1,197,351	247.3	
2030	26,890,536	8.00	4.00	7.49	7.74	(68.70)	(60.96)	0.63	4.63	1,245,032	254.3	
2031	27,952,132	8.00	4.00	7.49	7.74	(71.81)	(64.07)	0.63	4.63	1,294,184	261.8	
2032	29,049,160	8.00	4.00	7.49	7.73	(75.10)	(67.37)	0.63	4.63	1,344,976	269.8	
2033	30,180,558	8.00	4.00	7.49	7.72	(80.70)	(72.98)	0.63	4.63	1,397,360	278.4	
2034	31,352,307	8.00	4.00	7.49	7.71	(85.16)	(77.45)	0.63	4.63	1,451,612	287.7	
2035	32,575,992	8.00	4.00	7.50	7.69	(90.04)	(82.35)	0.63	4.63	1,508,268	297.6	
2036	33,858,884	8.00	4.00	7.50	7.68	(94.98)	(87.30)	0.63	4.63	1,567,666	308.3	
2037	35,196,711	8.00	4.00	7.50	7.67	(100.38)	(92.71)	0.63	4.63	1,629,608	319.9	
2038	36,596,245	8.00	4.00	7.50	7.66	(105.18)	(97.52)	0.63	4.63	1,694,406	332.5	

The Board at its January 2009 meeting adopted to reduce the interest rate from 8.50% to 8.25% for the June 30, 2008 valuation and to 8.00% thereafter

State Remedies

- **Decrease/Cut Liabilities at the System to potentially solve funding issues at the System**
 - Conversion of PSERS to a Defined Contribution or Hybrid plan
 - Maintain existing Defined Benefit plan with benefit modifications/cuts
 - Reduce multiplier/Repeal Act 9 of 2001
 - Change terms of retirement
 - Return to a 10-year vesting period
 - Prohibit the withdrawal of a member's contribution
 - No benefit enhancements
- **Would have limited impact on current funding issues because could only be done prospectively for new employees**
 - Any such changes would have to be prospective only to avoid the PA Constitution's prohibition against the impairment of a contract (Article I, Section 17)
 - The courts have ruled that PSERS' pension benefits are contracts with the existing members of the System, regardless of vesting, and thus subject to the constitutional impairment of contract prohibition

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State Remedies

- **Defer liabilities at the System into the future to marginally postpone the impact of funding issues at the System**
 - Further adjust actuarial funding methods at the System
 - Adopt Level Percent of Pay
 - Adopt Projected Unit Credits
 - Adjust smoothing of actuarial gains and losses to 10 -15 years
 - An increased rate floor above 4.00%
 - To prevent future underfunding of the System
 - Employer Normal Cost
 - The Governor's Funding proposal
 - Uses legislatively prescribed employer contribution rate collars that are tied to the funding status of the System

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State Remedies

- **The Governor's Funding proposal to address the rate spike was publicly released in June 2008**
 - **A copy of the report is available at the following link:**
<http://www.budget.state.pa.us/portal/server.pt?>
- **No legislation to implement the proposal was introduced in the General Assembly and no further action took place in 2008**
 - **Action is unlikely in the first six months of 2009 due to budget crisis**
 - **Action is more likely in the second half of the year**

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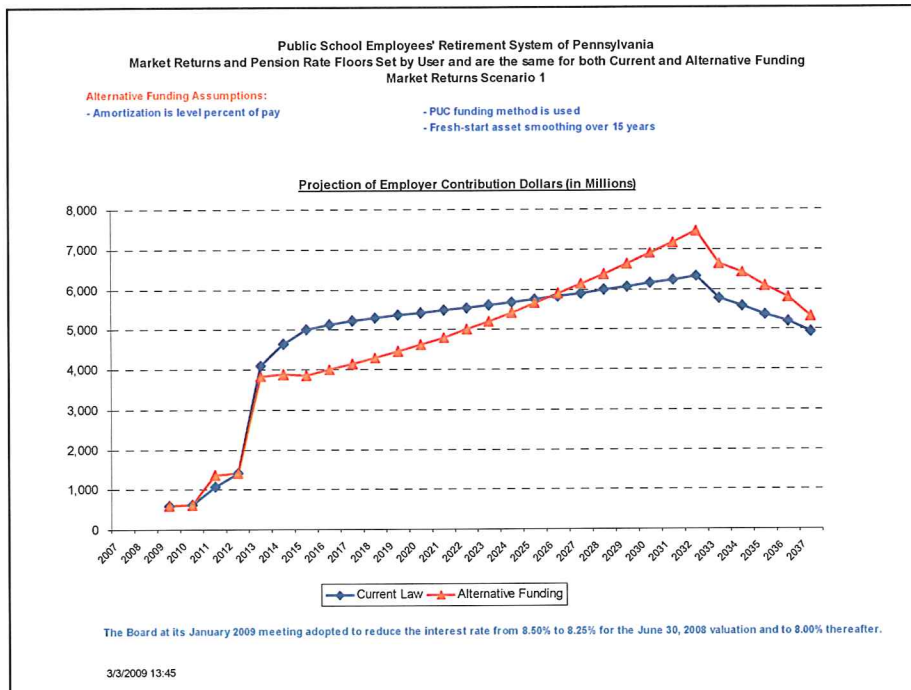
State Remedies

- **Examples of alternative funding proposals follow which use some or all of the following:**
 - **Projected unit credit**
 - **Level percent of pay**
 - **Fresh start of asset smoothing over 15 years**
 - **Varying investments returns (25.50)%, (30.00)%, and a (35.00)% return**
 - **Step up employer contributions by 800 bp for FY 2011 and FY 2012**

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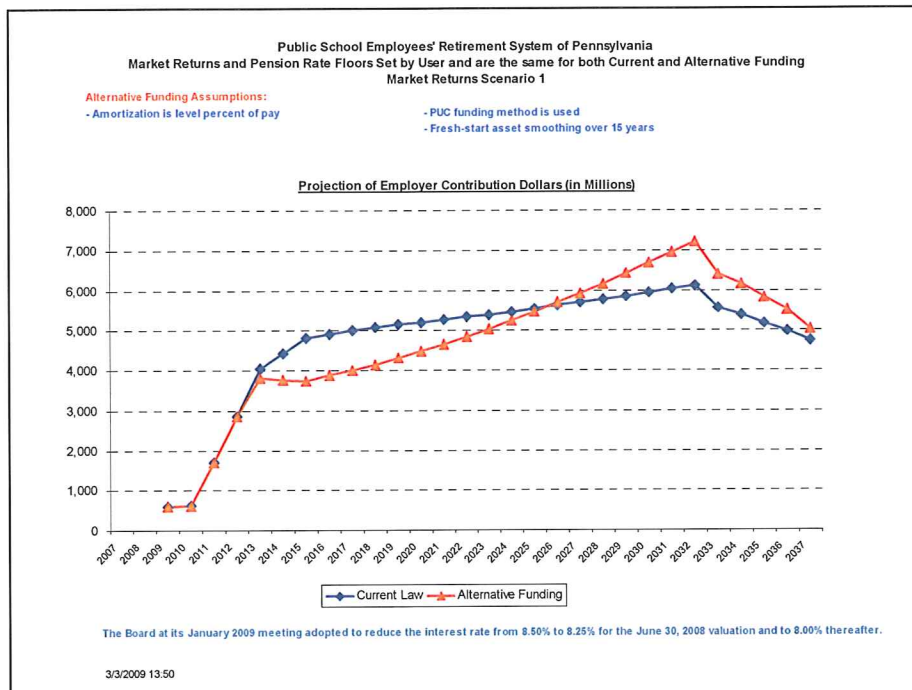
Public School Employees' Retirement System of Pennsylvania Projection of Contribution Rates and Funded Ratios As of June 30, 2008 Market Returns and Pension Rate Floors Set by User											
Market Returns Scenario 1 Alternative Funding assumption			- Amortization is level percent of pay			- PUC funding method is used - Fresh-start asset smoothing over 15 years					
Fiscal Year Ending June	Appropriation Payroll (thousands)	Fiscal Year Market Rate of Return	Pension Rate Floor	Employee Contribution Rate	Employer Normal Cost	Unfunded Liability Rate	Preliminary Employer Pension Rate	Health Care Contribution	Total Employer Contribution Rate	Projected Total Employer Contribution (thousands)	Funded Ratio
2007	\$ 11,821,951	22.93 %	4.00 %	7.21 %	6.62 %	(0.95) %	5.67 %	0.74 %	6.46 %		85.8 %
2008	12,881,244	(2.82)	4.00	7.25	6.68	(0.24)	6.44	0.69	7.13		86.0
2009	12,402,702	(25.50)	4.00	7.29	6.68	(3.37)	3.31	0.76	4.76	\$ 590,369	62.0
2010	12,899,000	8.00	4.00	7.32	7.35	(3.72)	3.63	0.78	4.78	616,572	59.7
2011	13,297,917	8.00	4.00	7.34	8.97	0.61	9.58	0.76	10.34	1,375,005	58.1
2012	13,703,700	8.00	4.00	7.36	8.91	0.59	9.50	0.75	10.25	1,404,629	56.3
2013	14,132,543	8.00	4.00	7.38	8.84	17.56	26.40	0.74	27.14	3,835,572	57.4
2014	14,586,335	8.00	4.00	7.40	8.75	17.13	25.88	0.73	26.61	3,881,424	58.5
2015	15,066,759	8.00	4.00	7.41	8.67	16.27	24.94	0.72	25.66	3,866,130	59.4
2016	15,573,822	8.00	4.00	7.43	8.59	16.37	24.96	0.70	25.66	3,996,243	60.4
2017	16,119,772	8.00	4.00	7.44	8.53	16.45	24.98	0.69	25.67	4,137,945	61.5
2018	16,711,215	8.00	4.00	7.45	8.48	16.50	24.98	0.66	25.64	4,284,756	62.7
2019	17,349,067	8.00	4.00	7.46	8.44	16.53	24.97	0.65	25.62	4,444,831	63.9
2020	18,031,134	8.00	4.00	7.46	8.44	16.54	24.98	0.63	25.61	4,617,773	65.2
2021	18,751,940	8.00	4.00	7.47	8.44	16.54	24.98	0.63	25.61	4,802,372	66.7
2022	19,513,328	8.00	4.00	7.47	8.45	16.53	24.98	0.63	25.61	4,997,363	68.2
2023	20,315,347	8.00	4.00	7.48	8.46	16.51	24.97	0.63	25.60	5,200,729	69.9
2024	21,156,474	8.00	4.00	7.48	8.49	16.49	24.98	0.63	25.61	5,418,173	71.6
2025	22,033,366	8.00	4.00	7.48	8.52	16.47	24.99	0.63	25.62	5,644,948	73.5
2026	22,945,071	8.00	4.00	7.48	8.55	16.45	25.00	0.63	25.63	5,880,822	75.4
2027	23,888,648	8.00	4.00	7.49	8.56	16.43	24.99	0.63	25.62	6,120,272	77.5
2028	24,860,052	8.00	4.00	7.49	8.57	16.42	24.99	0.63	25.62	6,369,145	79.6
2029	25,860,712	8.00	4.00	7.49	8.58	16.41	24.99	0.63	25.62	6,625,514	81.8
2030	26,890,536	8.00	4.00	7.49	8.58	16.42	25.00	0.63	25.63	6,892,044	84.1
2031	27,952,132	8.00	4.00	7.49	8.58	16.43	25.01	0.63	25.64	7,166,927	86.6
2032	29,049,160	8.00	4.00	7.49	8.57	16.44	25.01	0.63	25.64	7,448,205	89.1
2033	30,180,558	8.00	4.00	7.49	8.55	12.81	21.36	0.63	21.99	6,636,705	91.0
2034	31,352,307	8.00	4.00	7.49	8.53	11.28	19.81	0.63	20.44	6,408,412	92.7
2035	32,575,992	8.00	4.00	7.50	8.49	9.55	18.04	0.63	18.67	6,081,938	94.2
2036	33,858,884	8.00	4.00	7.50	8.47	8.01	16.48	0.63	17.11	5,793,255	95.5
2037	35,196,711	8.00	4.00	7.50	8.45	6.03	14.48	0.63	15.11	5,318,223	96.4
2038	36,596,245	8.00	4.00	7.50	8.43	5.61	14.04	0.63	14.67	5,368,669	97.3

The Board at its January 2009 meeting adopted to reduce the interest rate from 8.50% to 8.25% for the June 30, 2008 valuation and to 8.00% thereafter.



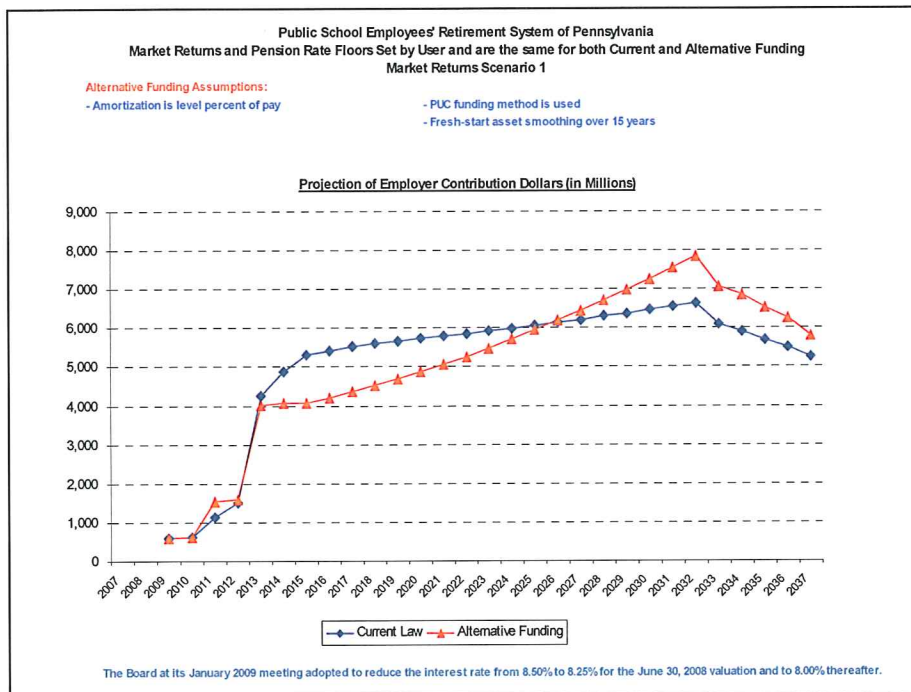
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Market Returns Scenario 1 Alternative Funding assumptions: - Amortization is level percent of pay - PUC funding method is used - Fresh-start asset smoothing over 15 years											
Fiscal Year Ending June	Appropriation Payroll (thousands)	Fiscal Year Market Rate of Return	Pension Rate Floor	Employee Contribution Rate	Employer Normal Cost	Unfunded Liability Rate	Preliminary Employer Pension Rate	Health Care Contribution	Total Employer Contribution Rate	Projected Total Employer Contribution (thousands)	Funded Ratio
2007	\$ 11,821,951	24.9%	4.00 %	7.21 %	6.62 %	(0.95) %	5.67 %	0.74 %	6.46 %		85.8 %
2008	12,881,244	(2.82)	4.00	7.25	6.68	(0.24)	6.44	0.69	7.13		86.0
2009	12,402,702	(25.50)	4.00	7.29	6.68	(3.37)	3.31	0.76	4.76	\$ 590,369	62.0
2010	12,899,000	8.00	4.00	7.32	7.35	(3.72)	3.63	0.78	4.78	616,572	59.7
2011	13,297,917	8.00	12.00	7.34	8.97	0.61	9.58	0.76	12.76	1,696,814	58.5
2012	13,703,700	8.00	20.00	7.36	8.91	0.59	9.50	0.75	20.75	2,843,518	58.7
2013	14,132,543	8.00	4.00	7.38	8.84	17.41	26.25	0.74	26.99	3,814,373	59.9
2014	14,586,335	8.00	4.00	7.40	8.75	16.33	25.08	0.73	25.81	3,764,733	60.9
2015	15,066,759	8.00	4.00	7.41	8.67	15.46	24.13	0.72	24.85	3,744,090	61.8
2016	15,573,822	8.00	4.00	7.43	8.59	15.55	24.14	0.70	24.84	3,868,537	62.8
2017	16,119,772	8.00	4.00	7.44	8.53	15.63	24.16	0.69	24.85	4,005,763	63.8
2018	16,711,215	8.00	4.00	7.45	8.48	15.68	24.16	0.66	24.82	4,147,724	64.9
2019	17,349,067	8.00	4.00	7.46	8.44	15.71	24.15	0.65	24.80	4,302,569	66.1
2020	18,031,134	8.00	4.00	7.46	8.44	15.72	24.16	0.63	24.79	4,469,918	67.4
2021	18,751,940	8.00	4.00	7.47	8.44	15.72	24.16	0.63	24.79	4,648,606	68.8
2022	19,513,328	8.00	4.00	7.47	8.45	15.71	24.16	0.63	24.79	4,837,354	70.3
2023	20,315,347	8.00	4.00	7.48	8.46	15.69	24.15	0.63	24.78	5,034,143	71.9
2024	21,156,474	8.00	4.00	7.48	8.49	15.67	24.16	0.63	24.79	5,244,690	73.6
2025	22,033,366	8.00	4.00	7.48	8.52	15.65	24.17	0.63	24.80	5,464,275	75.4
2026	22,945,071	8.00	4.00	7.48	8.55	15.63	24.18	0.63	24.81	5,692,672	77.3
2027	23,888,648	8.00	4.00	7.49	8.56	15.61	24.17	0.63	24.80	5,924,385	79.2
2028	24,860,052	8.00	4.00	7.49	8.57	15.60	24.17	0.63	24.80	6,165,293	81.3
2029	25,860,712	8.00	4.00	7.49	8.58	15.60	24.18	0.63	24.81	6,416,043	83.4
2030	26,890,536	8.00	4.00	7.49	8.58	15.60	24.18	0.63	24.81	6,671,542	85.6
2031	27,952,132	8.00	4.00	7.49	8.58	15.61	24.19	0.63	24.82	6,937,719	88.0
2032	29,049,160	8.00	4.00	7.49	8.57	15.62	24.19	0.63	24.82	7,210,002	90.4
2033	30,180,558	8.00	4.00	7.49	8.55	11.99	20.54	0.63	21.17	6,389,224	92.2
2034	31,352,307	8.00	4.00	7.49	8.53	10.46	18.99	0.63	19.62	6,151,323	93.8
2035	32,575,992	8.00	4.00	7.50	8.49	8.73	17.22	0.63	17.85	5,814,815	95.2
2036	33,858,884	8.00	4.00	7.50	8.47	7.18	15.65	0.63	16.28	5,512,226	96.4
2037	35,196,711	8.00	4.00	7.50	8.45	5.20	13.65	0.63	14.28	5,026,090	97.2
2038	36,596,245	8.00	4.00	7.50	8.43	4.78	13.21	0.63	13.84	5,064,920	98.0

The Board at its January 2009 meeting adopted to reduce the interest rate from 8.50% to 8.25% for the June 30, 2008 valuation and to 8.00% thereafter.



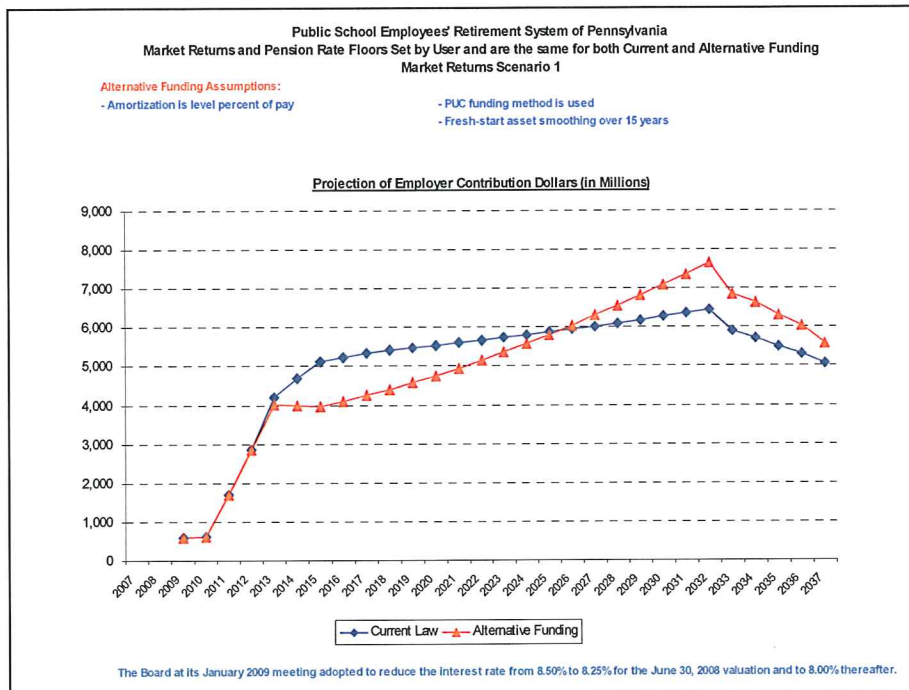
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2008	12,881,244	(2.82)	4.00	7.25	6.68	(0.24)	6.44	0.69	7.13		86.0
2009	12,402,702	(30.00)	4.00	7.29	6.68	(3.37)	3.31	0.76	4.76	\$ 590,369	58.1
2010	12,899,000	8.00	4.00	7.32	7.35	(3.72)	3.63	0.78	4.78	616,572	55.6
2011	13,297,917	8.00	4.00	7.34	8.97	1.92	10.89	0.76	11.65	1,549,207	54.0
2012	13,703,700	8.00	4.00	7.36	8.91	1.92	10.83	0.75	11.58	1,586,888	52.3
2013	14,132,543	8.00	4.00	7.38	8.84	18.90	27.74	0.74	28.48	4,024,948	53.5
2014	14,586,335	8.00	4.00	7.40	8.75	18.48	27.23	0.73	27.96	4,078,339	54.7
2015	15,066,759	8.00	4.00	7.41	8.67	17.63	26.30	0.72	27.02	4,071,038	55.7
2016	15,573,822	8.00	4.00	7.43	8.59	17.74	26.33	0.70	27.03	4,209,604	56.7
2017	16,119,772	8.00	4.00	7.44	8.53	17.82	26.35	0.69	27.04	4,358,786	57.9
2018	16,711,215	8.00	4.00	7.45	8.48	17.88	26.36	0.66	27.02	4,515,370	59.1
2019	17,349,067	8.00	4.00	7.46	8.44	17.91	26.35	0.65	27.00	4,684,248	60.5
2020	18,031,134	8.00	4.00	7.46	8.44	17.92	26.36	0.63	26.99	4,866,603	61.9
2021	18,751,940	8.00	4.00	7.47	8.44	17.92	26.36	0.63	26.99	5,061,149	63.4
2022	19,513,328	8.00	4.00	7.47	8.45	17.91	26.36	0.63	26.99	5,266,647	65.1
2023	20,315,347	8.00	4.00	7.48	8.46	17.89	26.35	0.63	26.98	5,481,081	66.9
2024	21,156,474	8.00	4.00	7.48	8.49	17.87	26.36	0.63	26.99	5,710,132	68.7
2025	22,033,366	8.00	4.00	7.48	8.52	17.84	26.36	0.63	26.99	5,946,805	70.7
2026	22,945,071	8.00	4.00	7.48	8.55	17.82	26.37	0.63	27.00	6,195,169	72.8
2027	23,888,648	8.00	4.00	7.49	8.56	17.80	26.36	0.63	26.99	6,447,546	75.0
2028	24,860,052	8.00	4.00	7.49	8.57	17.79	26.36	0.63	26.99	6,709,728	77.3
2029	25,860,712	8.00	4.00	7.49	8.58	17.78	26.36	0.63	26.99	6,979,806	79.7
2030	26,890,536	8.00	4.00	7.49	8.58	17.79	26.37	0.63	27.00	7,260,445	82.1
2031	27,952,132	8.00	4.00	7.49	8.58	17.80	26.38	0.63	27.01	7,549,871	84.7
2032	29,049,160	8.00	4.00	7.49	8.57	17.81	26.38	0.63	27.01	7,846,178	87.4
2033	30,180,558	8.00	4.00	7.49	8.55	14.18	22.73	0.63	23.36	7,050,178	89.5
2034	31,352,307	8.00	4.00	7.49	8.53	12.65	21.18	0.63	21.81	6,837,938	91.4
2035	32,575,992	8.00	4.00	7.50	8.49	10.92	19.41	0.63	20.04	6,528,229	93.1
2036	33,858,884	8.00	4.00	7.50	8.47	9.38	17.85	0.63	18.48	6,257,122	94.6
2037	35,196,711	8.00	4.00	7.50	8.45	7.40	15.85	0.63	16.48	5,800,418	95.7
2038	36,596,245	8.00	4.00	7.50	8.43	6.98	15.41	0.63	16.04	5,870,038	96.8

The Board at its January 2009 meeting adopted to reduce the interest rate from 8.50% to 8.25% for the June 30, 2008 valuation and to 8.00% thereafter.



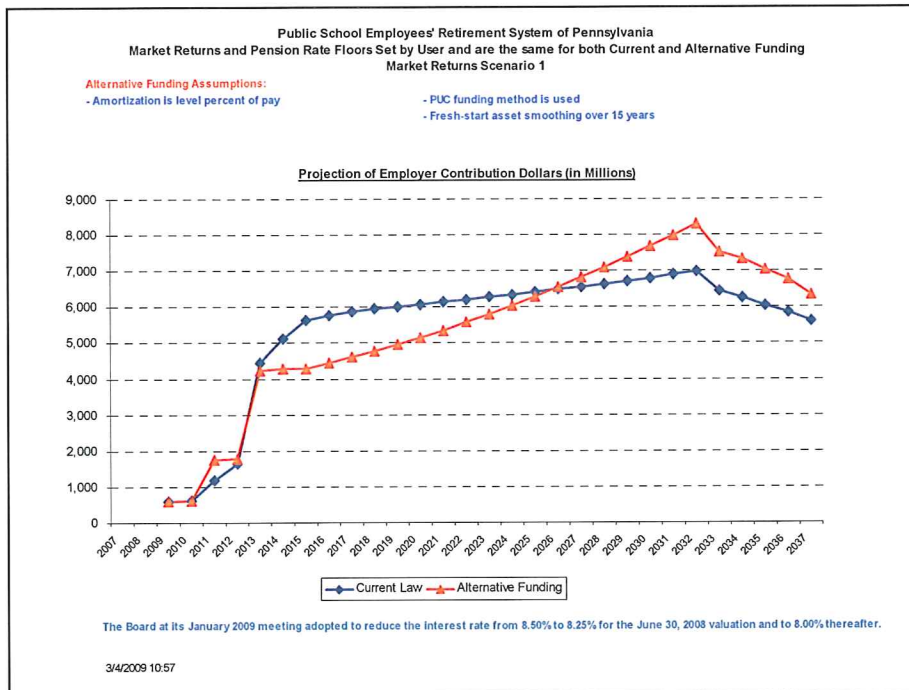
Public School Employees' Retirement System of Pennsylvania Projection of Contribution Rates and Funded Ratios As of June 30, 2008 Market Returns and Pension Rate Floors Set by User												
Market Returns Scenario 1												
Alternative Funding assumptions: Amortization is level percent of pay - PUC funding method is used - Fresh-start asset smoothing over 15 years												
Fiscal Year Ending June	Appropriation Payroll (thousands)	Fiscal Year Market Rate of Return	Pension Rate Floor	Employee Contribution Rate	Employer Normal Cost	Unfunded Liability Rate	Preliminary Employer Pension Rate	Health Care Contribution	Total Employer Contribution Rate	Projected Total Employer Contribution (thousands)	Funded Ratio	
2007	\$ 11,821,951	22.93 %	4.00 %	7.21 %	6.62 %	(0.95) %	5.67 %	0.74 %	6.46 %		85.8 %	
2008	12,881,244	(2.82)	4.00	7.25	6.68	(0.24)	6.44	0.69	7.13		86.0	
2009	12,402,702	(30.00)	4.00	7.29	6.68	(3.37)	3.31	0.76	4.76	\$ 590,369	58.1	
2010	12,899,000	8.00	4.00	7.32	7.35	(3.72)	3.63	0.78	4.78	616,572	55.6	
2011	13,297,917	8.00	12.00	7.34	8.97	1.92	10.89	0.76	12.76	1,696,814	54.3	
2012	13,703,700	8.00	20.00	7.36	8.91	1.92	10.83	0.75	20.75	2,843,518	54.2	
2013	14,132,543	8.00	4.00	7.38	8.84	18.83	27.67	0.74	28.41	4,015,055	55.5	
2014	14,586,335	8.00	4.00	7.40	8.75	17.84	26.59	0.73	27.32	3,984,987	56.6	
2015	15,066,759	8.00	4.00	7.41	8.67	16.98	25.65	0.72	26.37	3,973,104	57.6	
2016	15,573,822	8.00	4.00	7.43	8.59	17.09	25.68	0.70	26.38	4,108,374	58.6	
2017	16,119,772	8.00	4.00	7.44	8.53	17.17	25.70	0.69	26.39	4,254,008	59.7	
2018	16,711,215	8.00	4.00	7.45	8.48	17.22	25.70	0.66	26.36	4,405,076	60.9	
2019	17,349,067	8.00	4.00	7.46	8.44	17.25	25.69	0.65	26.34	4,569,744	62.2	
2020	18,031,134	8.00	4.00	7.46	8.44	17.26	25.70	0.63	26.33	4,747,598	63.6	
2021	18,751,940	8.00	4.00	7.47	8.44	17.26	25.70	0.63	26.33	4,937,386	65.1	
2022	19,513,328	8.00	4.00	7.47	8.45	17.25	25.70	0.63	26.33	5,137,859	66.8	
2023	20,315,347	8.00	4.00	7.48	8.46	17.24	25.70	0.63	26.33	5,349,031	68.5	
2024	21,156,474	8.00	4.00	7.48	8.49	17.21	25.70	0.63	26.33	5,570,500	70.3	
2025	22,033,366	8.00	4.00	7.48	8.52	17.19	25.71	0.63	26.34	5,803,589	72.2	
2026	22,945,071	8.00	4.00	7.48	8.55	17.17	25.72	0.63	26.35	6,046,026	74.2	
2027	23,888,648	8.00	4.00	7.49	8.56	17.15	25.71	0.63	26.34	6,292,270	76.4	
2028	24,860,052	8.00	4.00	7.49	8.57	17.14	25.71	0.63	26.34	6,548,138	78.6	
2029	25,860,712	8.00	4.00	7.49	8.58	17.13	25.71	0.63	26.34	6,811,712	80.9	
2030	26,890,536	8.00	4.00	7.49	8.58	17.14	25.72	0.63	26.35	7,085,656	83.3	
2031	27,952,132	8.00	4.00	7.49	8.58	17.14	25.72	0.63	26.35	7,365,387	85.8	
2032	29,049,160	8.00	4.00	7.49	8.57	17.16	25.73	0.63	26.36	7,657,359	88.4	
2033	30,180,558	8.00	4.00	7.49	8.55	13.53	22.08	0.63	22.71	6,854,005	90.5	
2034	31,352,307	8.00	4.00	7.49	8.53	12.00	20.53	0.63	21.16	6,634,148	92.3	
2035	32,575,992	8.00	4.00	7.50	8.49	10.27	18.76	0.63	19.39	6,316,485	93.9	
2036	33,858,884	8.00	4.00	7.50	8.47	8.73	17.20	0.63	17.83	6,037,039	95.3	
2037	35,196,711	8.00	4.00	7.50	8.45	6.75	15.20	0.63	15.83	5,771,639	96.3	
2038	36,596,245	8.00	4.00	7.50	8.43	6.33	14.76	0.63	15.39	5,632,162	97.4	

The Board at its January 2009 meeting adopted to reduce the interest rate from 8.50% to 8.25% for the June 30, 2008 valuation and to 8.00% thereafter.



Public School Employees' Retirement System of Pennsylvania Projection of Contribution Rates and Funded Ratios As of June 30, 2008 Market Returns and Pension Rate Floors Set by User											
Market Returns Scenario 1											
Alternative Funding assumptions: - Amortization is level percent of pay - PUC funding method is used - Fresh-start asset smoothing over 15 years											
Fiscal Year Ending June	Appropriation Payroll (thousands)	Fiscal Year Market Rate of Return	Pension Rate Floor	Employee Contribution Rate	Employer Normal Cost	Unfunded Liability Rate	Preliminary Employer Pension Rate	Health Care Contribution	Total Employer Contribution Rate	Projected Total Employer Contribution (thousands)	Funded Ratio
2007	\$ 11,821,951	22.35 %	4.00 %	7.21 %	6.62 %	(0.95) %	5.67 %	0.74 %	6.46 %		85.8 %
2008	12,881,244	(2.82)	4.00	7.25	6.68	(0.24)	6.44	0.69	7.13		86.0
2009	12,402,702	(35.00)	4.00	7.29	6.68	(3.37)	3.31	0.76	4.76	\$ 590,369	53.8
2010	12,899,000	8.00	4.00	7.32	7.35	(3.72)	3.63	0.78	4.78	616,572	51.1
2011	13,297,917	8.00	4.00	7.34	8.97	3.38	12.35	0.76	13.11	1,743,357	49.6
2012	13,703,700	8.00	4.00	7.36	8.91	3.39	12.30	0.75	13.05	1,788,333	48.0
2013	14,132,543	8.00	4.00	7.38	8.84	20.39	29.23	0.74	29.97	4,235,523	49.2
2014	14,586,335	8.00	4.00	7.40	8.75	19.98	28.73	0.73	29.46	4,297,134	50.4
2015	15,066,759	8.00	4.00	7.41	8.67	19.13	27.80	0.72	28.52	4,297,040	51.5
2016	15,573,822	8.00	4.00	7.43	8.59	19.25	27.84	0.70	28.54	4,444,769	52.6
2017	16,119,772	8.00	4.00	7.44	8.53	19.34	27.87	0.69	28.56	4,603,807	53.9
2018	16,711,215	8.00	4.00	7.45	8.48	19.41	27.89	0.66	28.55	4,771,052	55.2
2019	17,349,067	8.00	4.00	7.46	8.44	19.44	27.88	0.65	28.53	4,949,689	56.6
2020	18,031,134	8.00	4.00	7.46	8.44	19.45	27.89	0.63	28.52	5,142,479	58.2
2021	18,751,940	8.00	4.00	7.47	8.44	19.45	27.89	0.63	28.52	5,348,053	59.8
2022	19,513,328	8.00	4.00	7.47	8.45	19.44	27.89	0.63	28.52	5,565,201	61.6
2023	20,315,347	8.00	4.00	7.48	8.46	19.42	27.88	0.63	28.51	5,791,905	63.5
2024	21,156,474	8.00	4.00	7.48	8.49	19.40	27.89	0.63	28.52	6,033,826	65.5
2025	22,033,366	8.00	4.00	7.48	8.52	19.37	27.89	0.63	28.52	6,283,916	67.7
2026	22,945,071	8.00	4.00	7.48	8.55	19.34	27.89	0.63	28.52	6,543,934	69.9
2027	23,888,648	8.00	4.00	7.49	8.56	19.32	27.88	0.63	28.51	6,810,654	72.2
2028	24,860,052	8.00	4.00	7.49	8.57	19.31	27.88	0.63	28.51	7,087,601	74.7
2029	25,860,712	8.00	4.00	7.49	8.58	19.30	27.88	0.63	28.51	7,372,889	77.2
2030	26,890,536	8.00	4.00	7.49	8.58	19.31	27.89	0.63	28.52	7,669,181	79.9
2031	27,952,132	8.00	4.00	7.49	8.58	19.32	27.90	0.63	28.53	7,974,743	82.7
2032	29,049,160	8.00	4.00	7.49	8.57	19.33	27.90	0.63	28.53	8,287,725	85.5
2033	30,180,558	8.00	4.00	7.49	8.55	15.70	24.25	0.63	24.88	7,508,923	87.9
2034	31,352,307	8.00	4.00	7.49	8.53	14.18	22.71	0.63	23.34	7,317,628	90.0
2035	32,575,992	8.00	4.00	7.50	8.49	12.45	20.94	0.63	21.57	7,026,641	91.9
2036	33,858,884	8.00	4.00	7.50	8.47	10.91	19.38	0.63	20.01	6,775,163	93.6
2037	35,196,711	8.00	4.00	7.50	8.45	8.93	17.38	0.63	18.01	6,338,928	95.0
2038	36,596,245	8.00	4.00	7.50	8.43	8.51	16.94	0.63	17.57	6,429,960	96.3

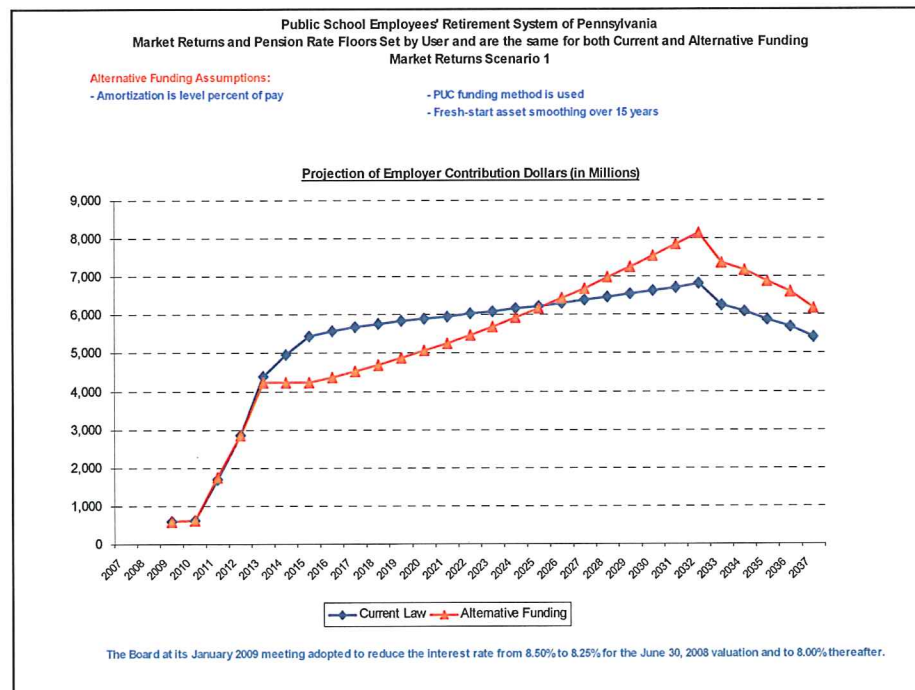
The Board at its January 2009 meeting adopted to reduce the interest rate from 8.50% to 8.25% for the June 30, 2008 valuation and to 8.00% thereafter.



Public School Employees' Retirement System of Pennsylvania Projection of Contribution Rates and Funded Ratios As of June 30, 2008 Market Returns and Pension Rate Floors Set by User												
Market Returns Scenario 1												
Alternative Funding assumptions:												
- Amortization is level percent of pay												
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- Fresh-start asset smoothing over 15 years												
Fiscal Year Ending June	Appropriation Payroll (thousands)	Fiscal Year Market Rate of Return	Pension Rate Floor	Employee Contribution Rate	Employer Normal Cost	Unfunded Liability Rate	Preliminary Employer Pension Rate	Health Care Contribution	Total Employer Contribution Rate	Projected Total Employer Contribution (thousands)	Funded Ratio	
2007	\$ 11,821,951	22.93 %	4.00 %	7.21 %	6.62 %	(0.95) %	5.67 %	0.74 %	6.46 %		85.8 %	
2008	12,881,244	(2.82)	4.00	7.25	6.68	(0.24)	6.44	0.69	7.13		86.0	
2009	12,402,702	(35.00)	4.00	7.29	6.68	(3.37)	3.31	0.76	4.76	\$ 590,369	53.8	
2010	12,899,000	8.00	4.00	7.32	7.35	(3.72)	3.63	0.78	4.78	616,572	51.1	
2011	13,297,917	8.00	12.00	7.34	8.97	3.38	12.35	0.76	13.11	1,743,357	49.6	
2012	13,703,700	8.00	20.00	7.36	8.91	3.39	12.30	0.75	20.75	2,843,518	49.4	
2013	14,132,543	8.00	4.00	7.38	8.84	20.39	29.23	0.74	29.97	4,235,523	50.7	
2014	14,586,335	8.00	4.00	7.40	8.75	19.50	28.25	0.73	28.98	4,227,120	51.9	
2015	15,066,759	8.00	4.00	7.41	8.67	18.65	27.32	0.72	28.04	4,224,719	52.9	
2016	15,573,822	8.00	4.00	7.43	8.59	18.77	27.36	0.70	28.06	4,370,014	54.1	
2017	16,119,772	8.00	4.00	7.44	8.53	18.86	27.39	0.69	28.08	4,526,432	55.3	
2018	16,711,215	8.00	4.00	7.45	8.48	18.92	27.40	0.66	28.06	4,689,167	56.6	
2019	17,349,067	8.00	4.00	7.46	8.44	18.95	27.39	0.65	28.04	4,864,678	58.0	
2020	18,031,134	8.00	4.00	7.46	8.44	18.96	27.40	0.63	28.03	5,054,127	59.5	
2021	18,751,940	8.00	4.00	7.47	8.44	18.96	27.40	0.63	28.03	5,256,169	61.1	
2022	19,513,328	8.00	4.00	7.47	8.45	18.95	27.40	0.63	28.03	5,469,586	62.9	
2023	20,315,347	8.00	4.00	7.48	8.46	18.93	27.39	0.63	28.02	5,692,360	64.7	
2024	21,156,474	8.00	4.00	7.48	8.49	18.91	27.40	0.63	28.03	5,930,160	66.7	
2025	22,033,366	8.00	4.00	7.48	8.52	18.88	27.40	0.63	28.03	6,175,952	68.8	
2026	22,945,071	8.00	4.00	7.48	8.55	18.85	27.40	0.63	28.03	6,431,503	71.0	
2027	23,888,648	8.00	4.00	7.49	8.56	18.83	27.39	0.63	28.02	6,693,599	73.3	
2028	24,860,052	8.00	4.00	7.49	8.57	18.82	27.39	0.63	28.02	6,965,787	75.7	
2029	25,860,712	8.00	4.00	7.49	8.58	18.82	27.40	0.63	28.03	7,248,758	78.2	
2030	26,890,536	8.00	4.00	7.49	8.58	18.82	27.40	0.63	28.03	7,537,417	80.8	
2031	27,952,132	8.00	4.00	7.49	8.58	18.83	27.41	0.63	28.04	7,837,778	83.5	
2032	29,049,160	8.00	4.00	7.49	8.57	18.84	27.41	0.63	28.04	8,145,384	86.3	
2033	30,180,558	8.00	4.00	7.49	8.55	15.22	23.77	0.63	24.40	7,364,056	88.6	
2034	31,352,307	8.00	4.00	7.49	8.53	13.69	22.22	0.63	22.85	7,164,002	90.7	
2035	32,575,992	8.00	4.00	7.50	8.49	11.96	20.45	0.63	21.08	6,867,019	92.5	
2036	33,858,884	8.00	4.00	7.50	8.47	10.42	18.89	0.63	19.52	6,609,254	94.1	
2037	35,196,711	8.00	4.00	7.50	8.45	8.44	16.89	0.63	17.52	6,166,464	95.4	
2038	36,596,245	8.00	4.00	7.50	8.43	8.02	16.45	0.63	17.08	6,250,639	96.7	

As Passed at its January 2009 meeting adjusted to reduce the interest rate from 8.50% to 8.25% for the June 30, 2008 valuation and to 8.00% thereafter.

The Board at its January 2009 meeting adopted to reduce the interest rate from 8.50% to 8.25% for the June 30, 2008 valuation and to 8.00% thereafter.



Conclusion

- **There is no silver bullet**
 - Solution will likely be a combination of approaches
- **The Act 40 decrease projected in the employer contribution rate over the next couple of years will not occur**
- **Under all remedies there will be a need for significant additional funding to the System**
- **Converting the System to a DC/Hybrid plan will not affect the current liabilities and immediate funding concerns**
- **As in the past, PSERS is committed to providing assistance to the General Assembly to solve the rate spike and future funding issues**
 - Will keep PASBO and other constituent groups apprised of developments in the coming year

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Rate Projection Assumptions

- The employer rate projections contained in this presentation are simply that; projections based on certain assumptions
- Therefore the projected rates can change
- The rates may decrease with investment performance over PSERS' 8.0% actuarial assumption and vice versa
- Also the projected employer rates and related data are impacted by actual experience that varies from the mortality, salary growth, and other economic and demographic assumptions of the System
- Benefit enhancements will also impact the rate projections

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PSBA Pension Reform Plan

Thomas J. Gentzel
PSBA Executive Director

PASBO Web Conference
March 9, 2009



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Pension Study Committee

Background – 2006

- Platform proposals supporting PSERS change from defined benefit (DB) to defined contribution (DC) plan
- Board Retreat: Agreed issue should be studied
- Platform proposals not forwarded to Legislative Policy Council to permit PSC review, recommendations



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Pension Study Committee

Background – 2006

- Sept.: PSBA Board approves formation of Pension Study Comm.; Pam Markle named chairperson
- Sept.-Nov.: Volunteers solicited
- Nov.: 8 school directors appointed



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Pension Study Committee

Background – 2007

- PSC holds 3 meetings (Jan., Mar. & May)
- Meets with:
 - PSERS
 - Commonwealth Foundation
 - Keystone Research Center
 - Nat'l Association of State Retirement Administrators



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Pension Study Committee

Key Issues Identified

- Benefits increased (Act 9) at same time economy slowed
- Original employer rate spike projection: 27%; now potentially less than 13%
- Drop is due to excellent investment returns
- No guarantee returns will remain high



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Pension Study Committee

Key Issues Identified

- PSERS very well managed; otherwise problem would be even more severe
- Benefits for current, active school employees cannot be reduced; prospective changes, only
- Any new plan creates added cost, could reduce expenses over long term



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Pension Study Committee

Key Terms

- DB Plan: Retirement benefit determined by formula, based on years of service and final average salary
- DC Plan: Retirement benefit determined by employer & employee contributions, and investment returns
- Hybrid Plan: Combine DB & DC elements



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Pension Study Committee

DB Pros and Cons

- DB Pros: Efficient asset generator; less costly to administer; offset to pay differential with private sector; promote employee retention
- DB Cons: Rate volatility; not portable; employer bears risk, long-term liability; longer vesting period; gap with private sector



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Pension Study Committee

DC Pros and Cons

- DC Pros: Portable; fixed employer cost; no benefit limit; aligned with private sector
- DC Cons: Lack long-term horizon; personal investment skills can cause under-funding & mismatch of assets and lifespan; more costly to manage; less employee retention



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PSBA Pension Reform Plan

PSC Recommendations*

- Two-tier system
- Maintain *current plan* for all current employees
- New *hybrid plan* for future employees

*Full text of report available at: <http://www.psba.org/issues-advocacy/issues-research/funding-finance/PSBAPensionStudyCommitteeReport.pdf>



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PSBA Pension Reform Plan

PSC Recommendations

- Hybrid plan:
 - DB features: lower multiplier; longer vesting period; mandatory fixed contribution; employer contribution lower than current plan
 - DC features: employees contribute minimum % of salary, with employer match
 - Current employees allowed to switch to new plan



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PSBA Pension Reform Plan

PSC Recommendations

- For both plans:
 - SD rate capped at Act 1 (or successor) index; state government pays balance
 - No benefit enhancements
 - PSERS responsible for administration



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PSBA Pension Reform Plan

PSC Recommendations

- Employer contribution rate floor for current plan set at Normal Cost
- Implement “Fresh Start” to revalue PSERS assets to market and re-amortize current and future gains & losses over 30 years
- Oppose pension benefit enhancements



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PSBA Pension Reform Plan

Implementing the Plan

- Recommendations approved as official PSBA policy
- PSBA has worked with attorneys and actuaries to put plan into legislative format
- Goal: Advance our proposal for consideration as part of pension reform debate



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PSBA Pension Reform Plan

Implementing the Plan

- Proposal now in bill form
- Prime sponsor: Rep. Ron Miller (R-York)
- Co-sponsorship memo circulating
- Pension reform presented as part of PSBA's *Focusing Resources on Educational Expenses (FREE)* initiative



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Jay Himes, CAE, Executive Director
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Pending Legislation

- House Bill 30 (Daley)
 - 30 and out with transfer of 60% of “savings” (retiree salary less replacement salary) to PSERS
 - PDE deducts from LEA payments and submits to PSERS
- House Bill 498 (Reed)
 - COLA of 5% for the next four years for annuitants as of June 30, 2001
 - Actuarial certification that “sufficient reserves exist” to fund COLA without “employer contributions” and without “added cost to taxpayers....”



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Pending Legislation

- Senate Bill 52 (Greenleaf)
 - 30 and out two year window



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What Can You Do?

- Educate
- Advocate
- Prepare
- Your board, taxpayers and legislators
- PASBO Legislative Priority



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Questions & Answers

- Send text questions using the “Chat” function at the left side of your screen. Type message under the gray bar and click send.
- If you do not have access to the “Chat” function, send questions by email to cshearer@pasbo.org



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*Thank you for your
participation!*

REMINDER:

- Desktop sites are reminded to return an Attendance Report for each participant. All forms must be received by March 16 for credit to be given.



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PSERS Worksheet

FY	Est. Payroll Subject to PSERS	Estimated PSERS Rate	Estimated Retirement Expense	Estimated State Share	Net District Cost	Change	Millage Equivalent of PSERS Increase	Millage Equivalent of PSERS District Total
09	23,923,000	4.76	1,138,735	614,917	523,818			1.10
10	24,640,690	4.78	1,177,825	636,025	541,799	17,981	0.038	1.14
11	25,379,911	4.76	1,208,084	652,365	555,719	13,919	0.029	1.17
12	26,141,308	4.75	1,241,712	670,525	571,188	15,469	0.033	1.20
13	26,925,547	16.40	4,415,790	2,384,526	2,031,263	1,460,076	3.074	4.28
14	27,733,314	16.06	4,453,970	2,405,144	2,048,826	17,563	0.037	4.31
15	28,565,313	14.87	4,247,662	2,293,738	1,953,925	(94,902)	(0.200)	4.11
16	29,422,272	14.59	4,292,710	2,318,063	1,974,646	20,722	0.044	4.16
17	30,304,941	14.34	4,345,728	2,346,693	1,999,035	24,389	0.051	4.21
					12,200,219		3.106	

FY	Est. Payroll Subject to PSERS	Estimated PSERS Rate	District's Share of PSERS Rate	District PSERS Cost	District Budget PSERS Rate	Total Budget Rate	District \$ Budget	Transfer To/(From) PSERS Reserve	Cumulative Reserve	Equivalent of PSERS Increase
09	23,923,000	4.76	2.19	523,818	2.19	4.76	523,818	-		
10	24,640,690	4.78	2.20	541,799	3.25	5.83	800,822	259,023	259,023	0.583
11	25,379,911	4.76	2.19	555,719	4.00	6.57	1,015,196	459,478	718,501	0.451
12	26,141,308	4.75	2.19	571,188	4.50	7.07	1,176,359	605,171	1,323,672	0.339
13	26,925,547	16.40	7.54	2,031,263	5.00	13.86	1,346,277	(684,986)	638,686	0.358
14	27,733,314	16.06	7.39	2,048,826	5.50	14.17	1,525,332	(523,494)	115,192	0.377
15	28,565,313	14.87	6.84	1,953,925	6.60	14.63	1,885,311	(68,614)	46,578	0.758
16	29,422,272	14.59	6.71	1,974,646	6.60	14.48	1,941,870	(32,776)	13,802	0.119
17	30,304,941	14.34	6.60	1,999,035	6.60	14.34	2,000,126	1,091	14,893	0.123
							12,215,112			3.108

Estimated FY09 Payroll	23,923,000
Estimated Annual Payroll Increase	1.03
Estimated PSERS Reimbursement %	54.00%
Mills	22.350
Assessed Value	500,000,000
Estimated RE Collection Rate	95.00%
Net Value of a Mill	475,000

PSERS Worksheet

FY	Est. Payroll Subject to PSERS	Estimated PSERS Rate	Estimated Retirement Expense	Estimated State Share	Net District Cost	Change	Millage Equivalent of PSERS Increase	Millage Equivalent of PSERS District Total
09	23,923,000	4.76	1,138,735	614,917	523,818			0.37
10	24,640,690	4.78	1,177,825	636,025	541,799	17,981	0.013	0.38
11	25,379,911	4.76	1,208,084	652,365	555,719	13,919	0.010	0.39
12	26,141,308	6.94	1,814,207	979,672	834,535	278,817	0.198	0.59
13	26,925,547	26.04	7,011,413	3,786,163	3,225,250	2,390,715	1.695	2.29
14	27,733,314	29.10	8,070,394	4,358,013	3,712,381	487,132	0.345	2.63
15	28,565,313	30.75	8,783,834	4,743,270	4,040,564	328,182	0.233	2.86
16	29,422,272	30.48	8,967,909	4,842,671	4,125,238	84,674	0.060	2.92
17	30,304,941	30.02	9,097,543	4,912,673	4,184,870	59,632	0.042	2.97
					21,744,174		2.596	

FY	Est. Payroll Subject to PSERS	Estimated PSERS Rate	District's Share of PSERS Rate	District PSERS Cost	District Budget PSERS Rate	State & District (Total) Budgeted Rate	District \$ Budget	Transfer To/(From) PSERS Reserve	Cumulative Reserve	Millage Equivalent of PSERS Increase
09	23,923,000	4.76	2.19	523,818	2.19	4.76	523,818	-		
10	24,640,690	4.78	2.20	541,799	4.00	6.58	985,628	443,828	443,828	0.327
11	25,379,911	4.76	2.19	555,719	5.00	7.57	1,268,996	713,277	1,157,105	0.201
12	26,141,308	6.94	3.19	834,535	8.00	11.75	2,091,305	1,256,770	2,413,875	0.583
13	26,925,547	26.04	11.98	3,225,250	10.00	24.06	2,692,555	(532,695)	1,881,180	0.426
14	27,733,314	29.10	13.39	3,712,381	12.00	27.71	3,327,998	(384,384)	1,496,796	0.451
15	28,565,313	30.75	14.15	4,040,564	12.00	28.61	3,427,838	(612,726)	884,070	0.071
16	29,422,272	30.48	14.02	4,125,238	12.00	28.46	3,530,673	(594,565)	289,505	0.073
17	30,304,941	30.02	13.81	4,184,870	13.00	29.21	3,939,642	(245,228)	44,277	0.290
				21,744,174			21,788,451			2.422

Estimated FY09 Payroll	23,923,000
Estimated Annual Payroll Increase	1.03
Estimated PSERS Reimbursement %	54.00%
Mills	13.400
Assessed Value	1,533,000,000
Estimated RE Collection Rate	92.00%
Net Value of a Mill	1,410,360

If an ActiveX security dialog box does not appear, Please use the Alternate Connection below or configure your IE Settings.

In a few moments when the ActiveX security dialog appears, please click Install to allow the web components to automatically update.



You have 3 Options to choose from: (Choose 1 option below)

1

Step 1 - Click on Link to Download exe file

<http://208.49.241.193/join.html?dn=systemcheck&password=&sid=d4321d102f5349cdb28a0d88fb0dc7ba&java&type=exe>

2

Alternate Connection using HTML (Limited Version) **Participants ONLY**

<http://208.49.241.193/join.html?dn=systemcheck&password=&sid=d4321d102f5349cdb28a0d88fb0dc7ba&java&type=java>

To hide the refresh of page, Choose View --> uncheck the Status Bar



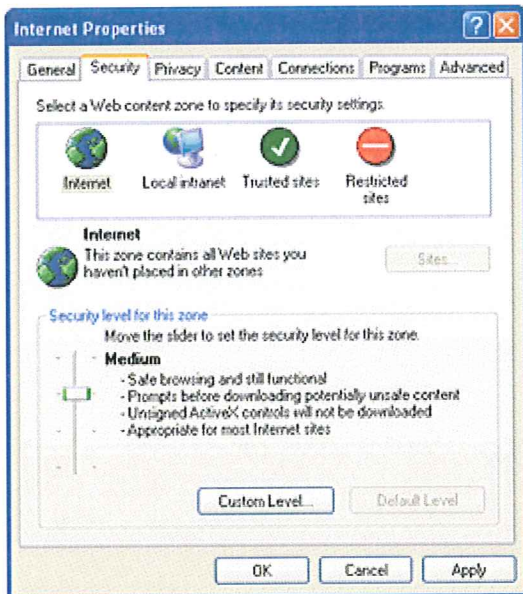
3

Set IE's Internet Options to Allow ActiveX

1. Click on Tools -->
2. Internet Options -->
3. Select the Security Tab
4. Set the Security option to 'Default'. This setting must be set for either the Internet or Local Intranet option.

***Once settings are changed, please refresh page

Set IE's Internet Options to Allow ActiveX



Or Advanced Instructions:

1. Select Tools, then Internet Options from the menu at the top of the Internet Explorer window. The Internet Options window will appear.
2. Select Security from the list of tabs at the top of the Internet Options window. The Security tab will appear.
3. Select the Custom Level button. The Security Settings window will appear.
4. Scroll down to the Download signed ActiveX controls entry and select the prompt radio button.
5. Scroll down to the Run ActiveX controls and plugins entry and select the enabled radio button.
6. Select the OK button to accept the changes