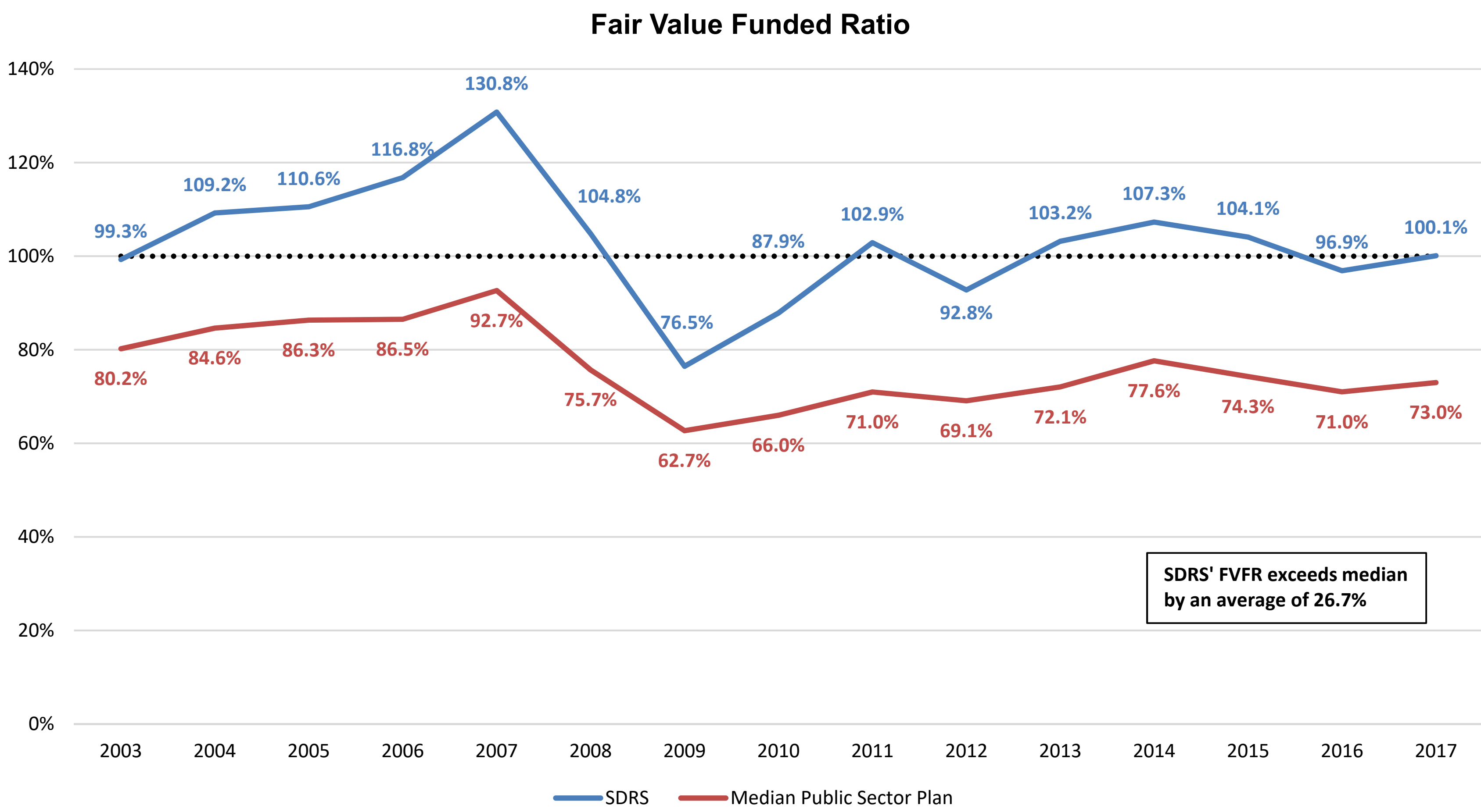
South Dakota
Retirement System

Comparisons with Other Systems and Lessons Learned

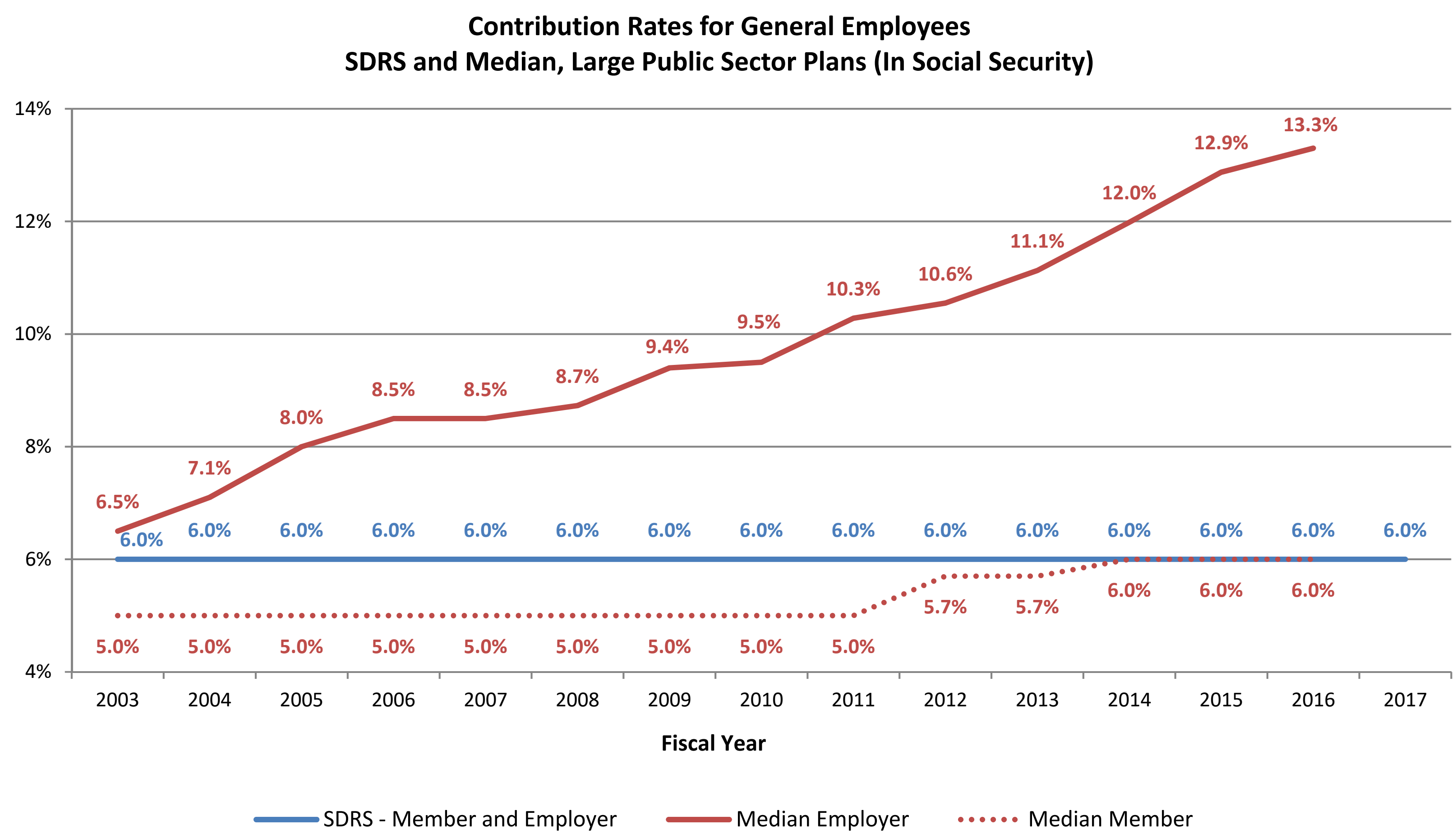
June 13, 2018

Funded Status Comparisons



Median public sector plan information from Public Plan Database. Estimated 2017 median public sector plan is based on 2016 data from Wilshire Report on State Retirement Systems, projected to 2017.

Contribution Comparisons

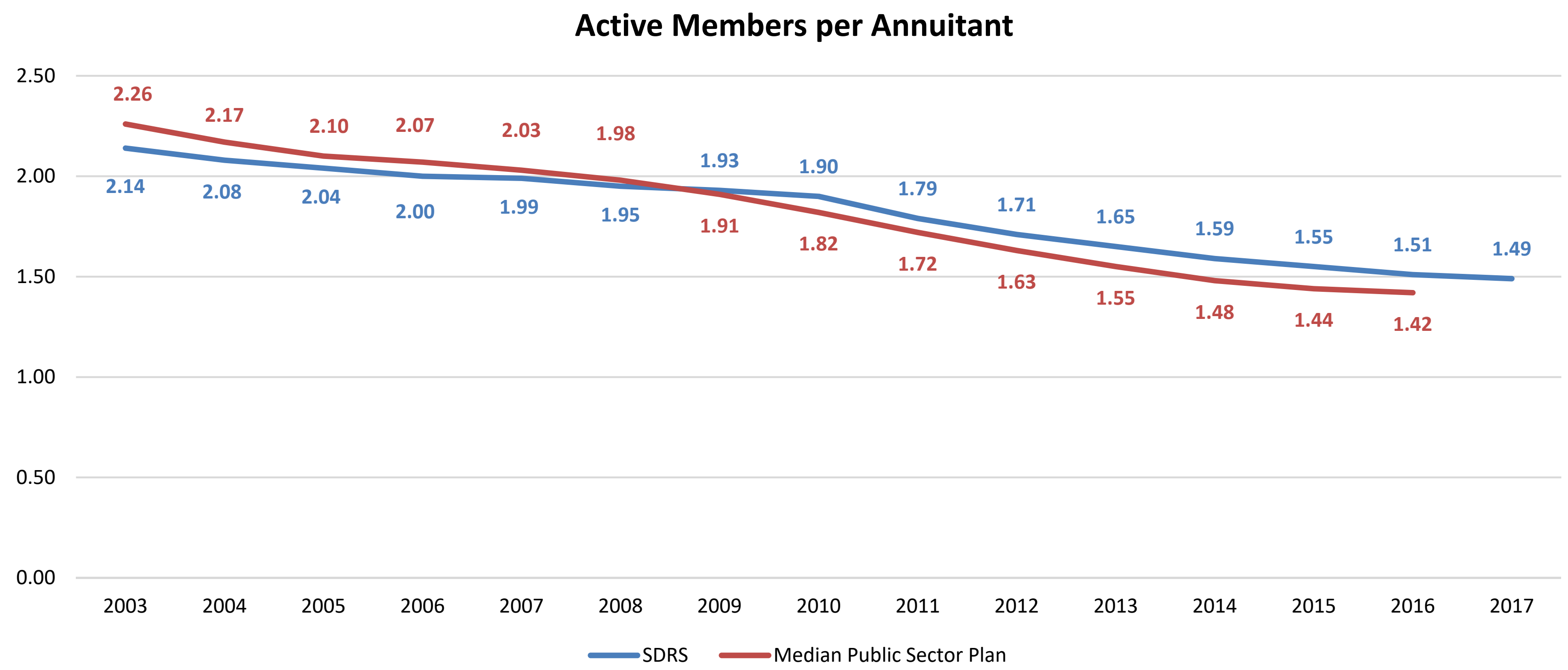


Information from NASRA Public Fund Survey, November 2017.

SDRS Plan Maturity

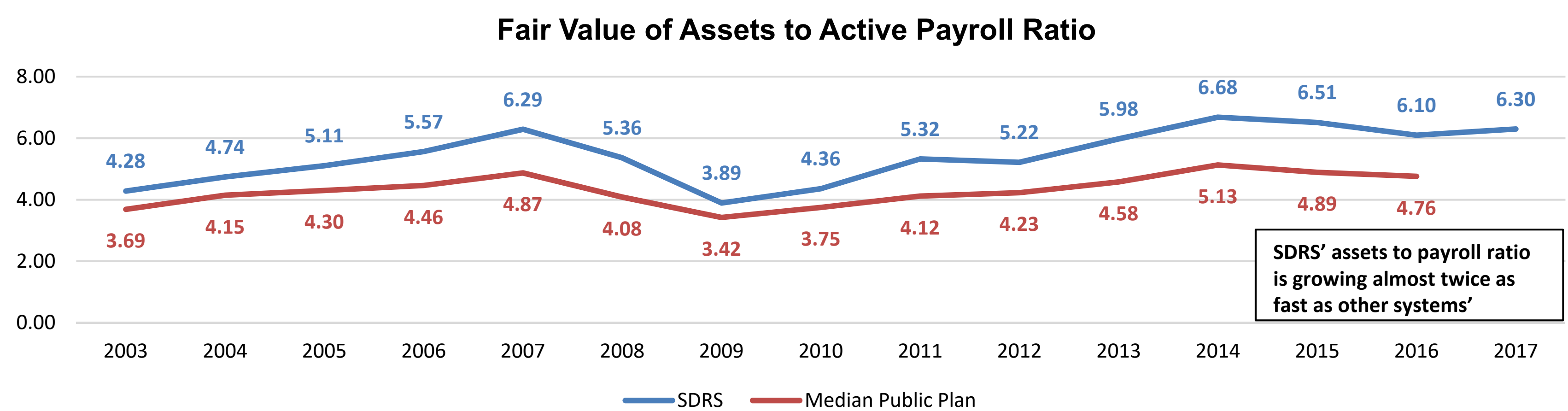
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fair Value Funded Ratio	99%	109%	111%	117%	131%	105%	76%	88%	103%	93%	103%	107%	104%	97%	100%
Contributions as % of AAL	2.9%	2.9%	2.7%	2.6%	2.6%	2.4%	2.4%	2.5%	2.4%	2.2%	2.2%	2.0%	2.0%	2.0%	2.0%
Fair Value of Assets/Payroll	4.28	4.74	5.11	5.57	6.29	5.36	3.89	4.36	5.32	5.22	5.98	6.68	6.51	6.10	6.30

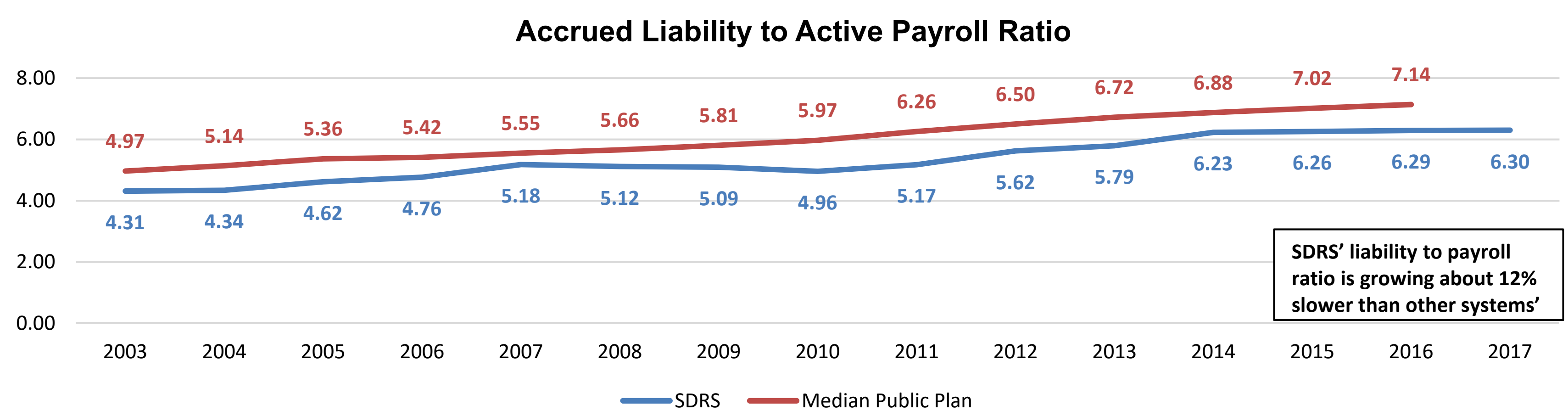
Plan Maturity Comparisons



Median public sector plan information from Public Plan Database.

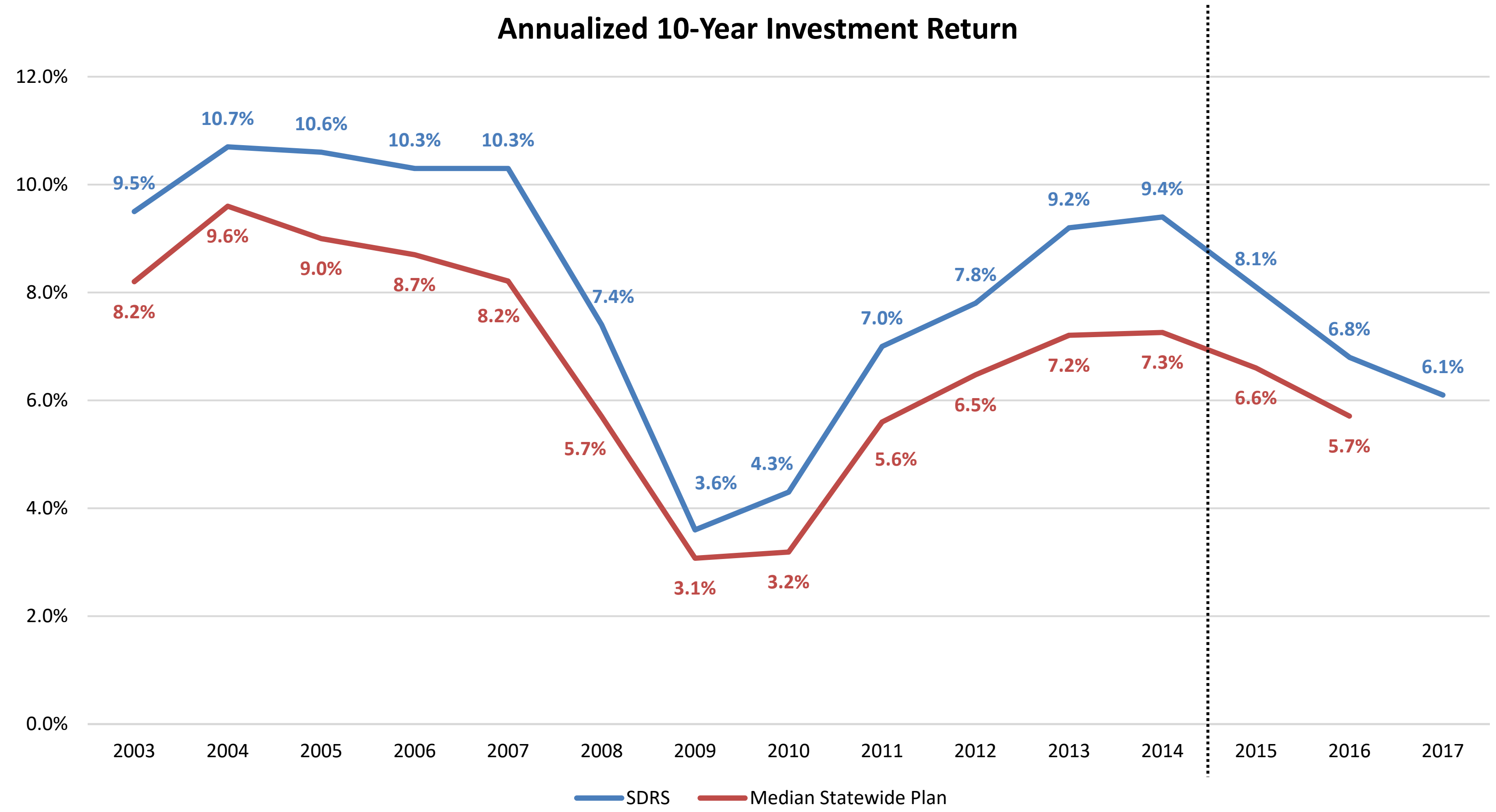
Plan Maturity Comparisons





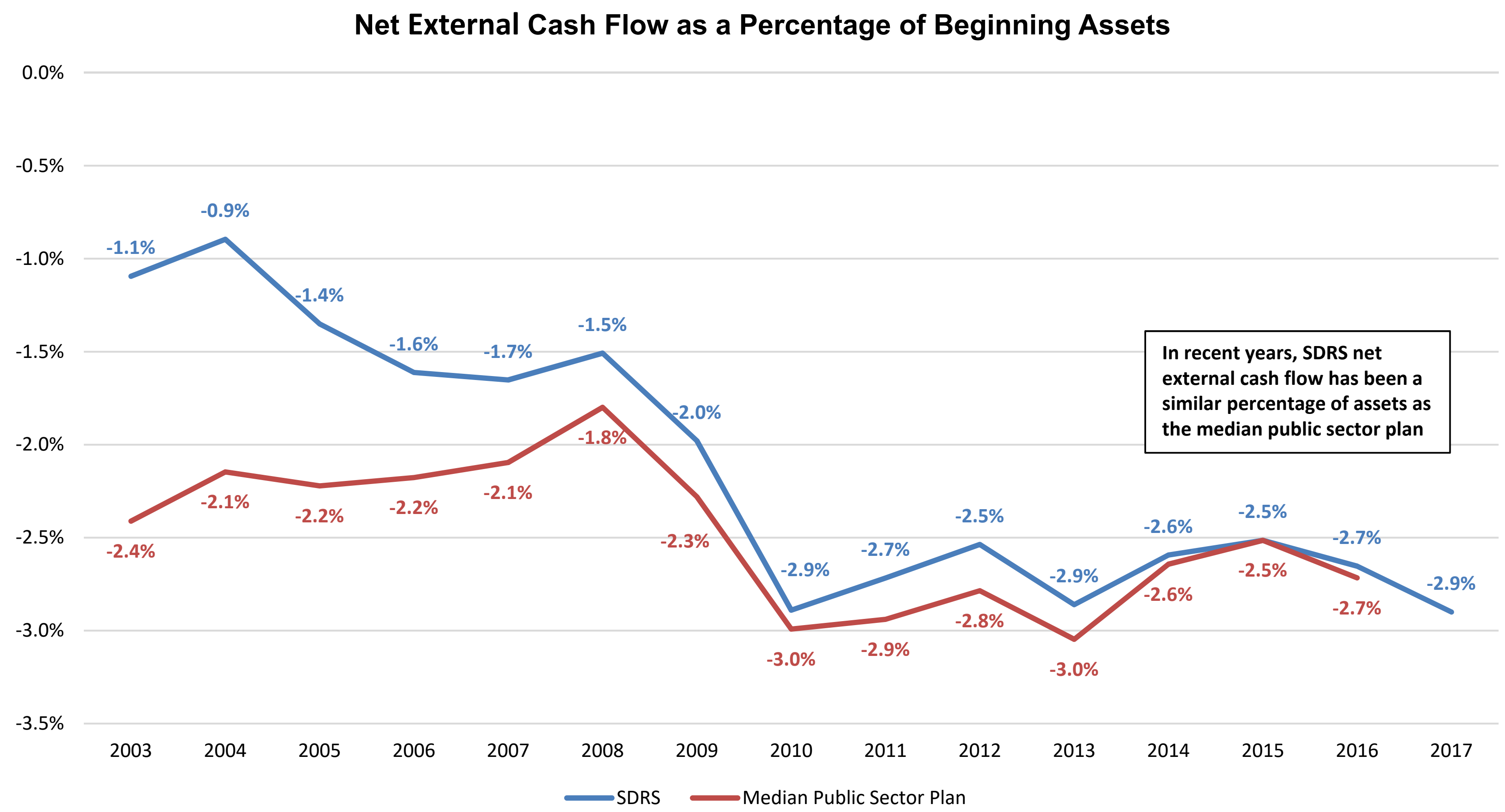
Median public sector plan information from Public Plan Database.

Investment Return Comparisons



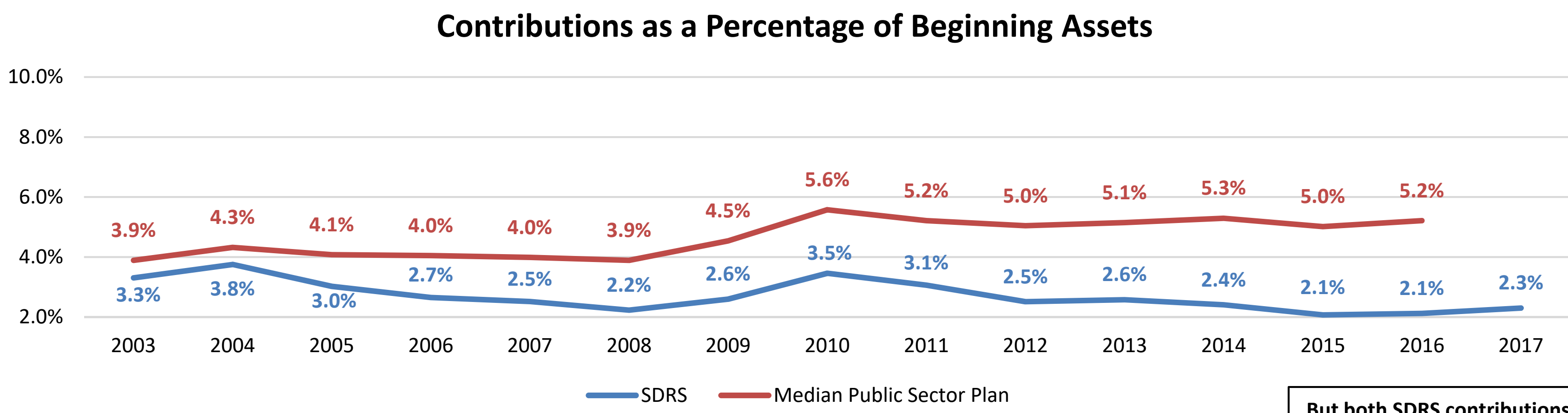
SDRS 10-year returns are gross through 2014 and net after 2014. Median public sector plan information from Public Plan Database.

Cash Flow Comparisons

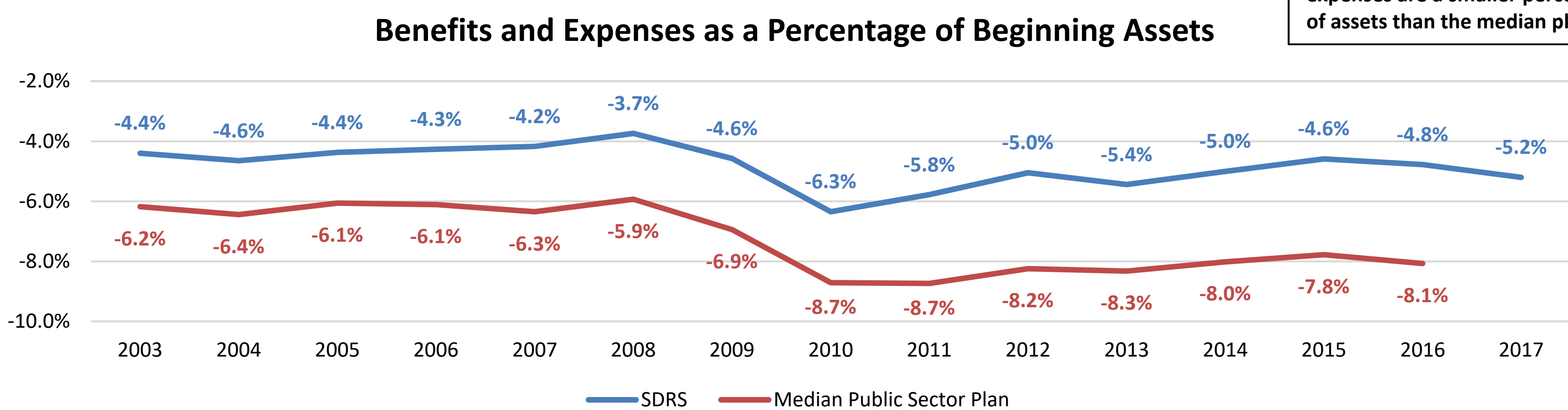


Median public sector plan information from Public Plan Database.

Cash Flow Comparisons

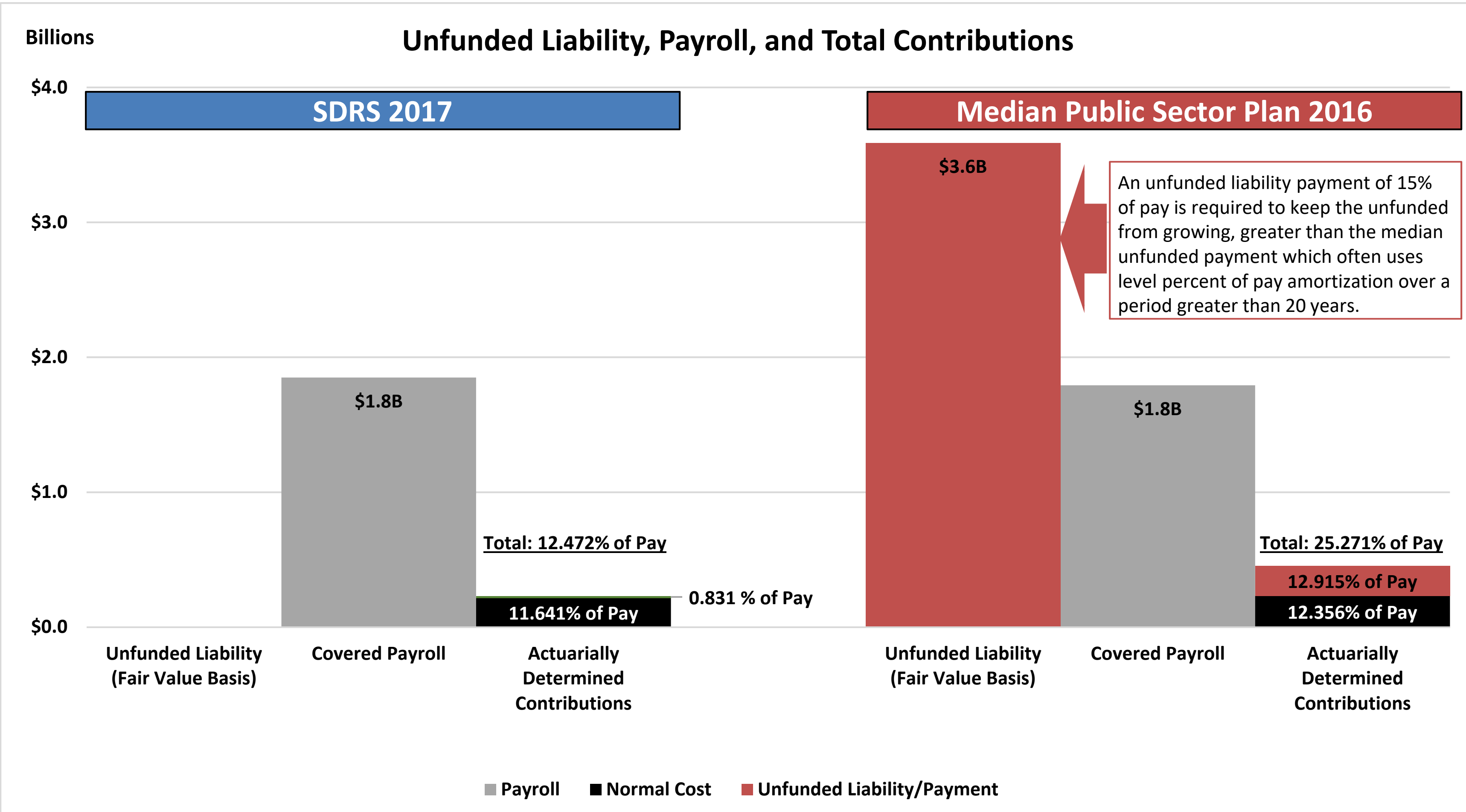


But both SDRS contributions and expenses are a smaller percentage of assets than the median plan



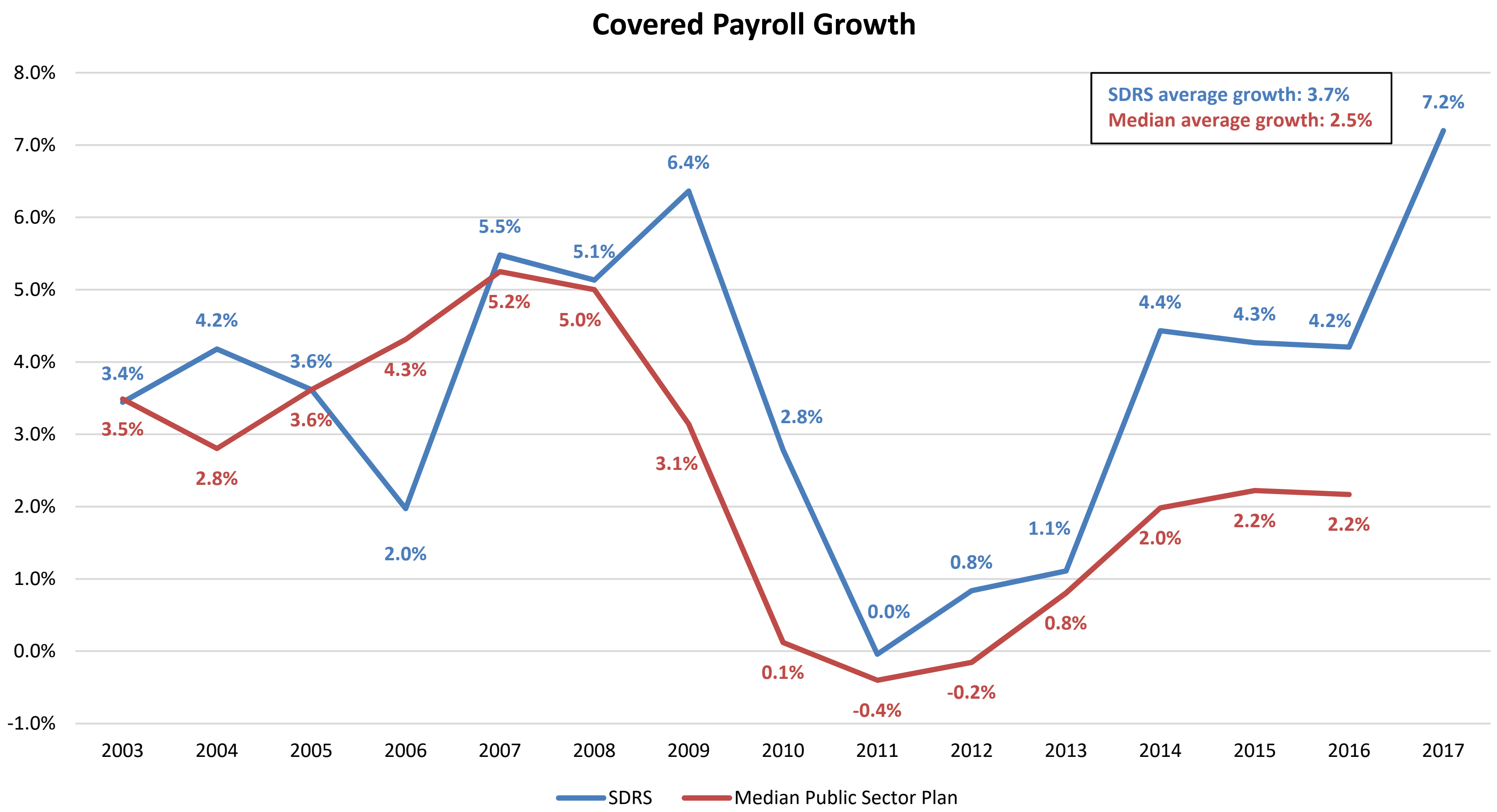
Median public sector plan information from Public Plan Database.

Funding Requirement Comparisons



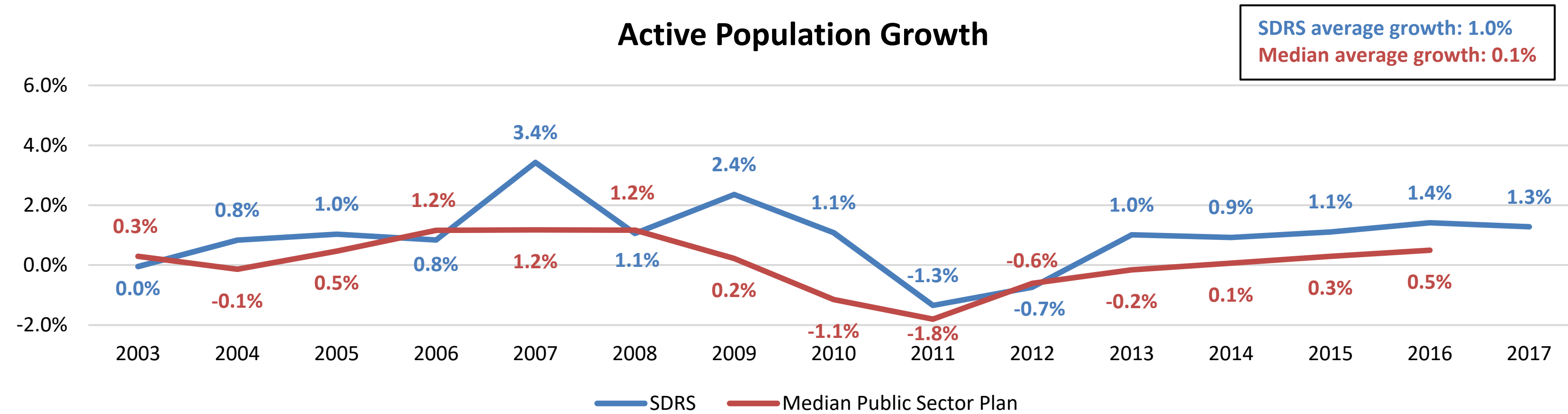
Median public sector plan information from Public Plan Database.

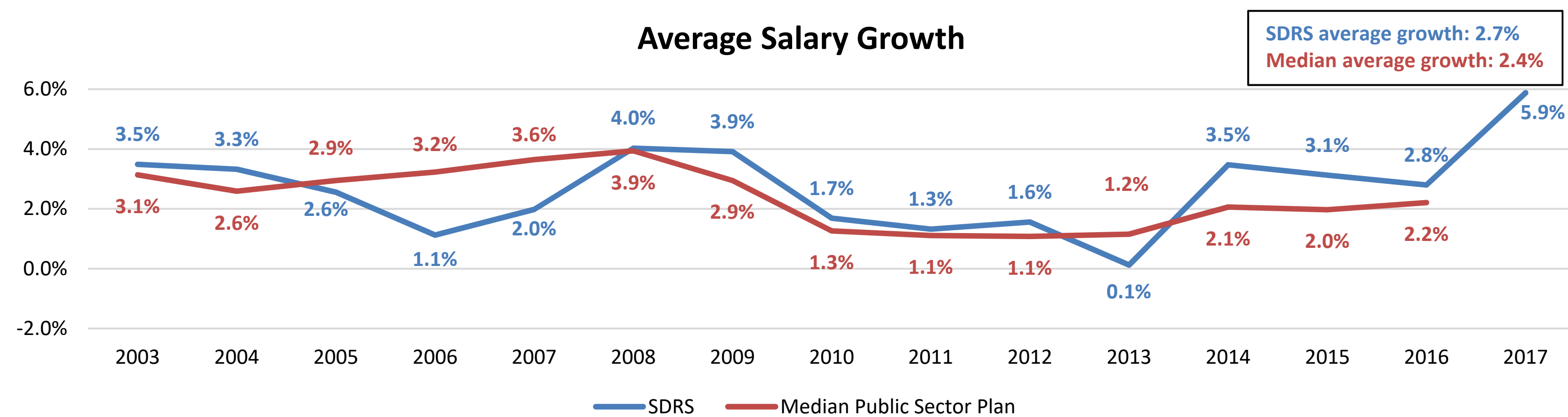
Payroll Growth Comparisons



Median public sector plan information from Public Plan Database.

Payroll Growth Comparisons





Median public sector plan information from Public Plan Database.

Case Study Pension Reform

Background in 1998

- A large statewide defined benefit plan
- No Social Security participation
- Fixed, statutory employer and member contributions
- 120% funded based on fair value of assets
- Statutory contributions exceeded normal costs by 3% of pay
- Significant benefit improvements made, fixed 3.5% COLA, gain-sharing, and some contribution holidays
- 8.75% investment return assumption

Case Study Pension Reform

1998-2008

- Funded ratio declined to 70% in 2002 and 50% in 2008 based on fair value of assets
- Unfunded liability of $20B+ in 2008
- Projected to be insolvent by 2035
- Decline mostly due to investment results

Case Study Pension Reform

2010 Reform

- Board of Trustees initiative designed to reach full funding in 30 years through:
  - Increased employer contributions
  - Later retirement eligibility and benefit reductions for non-vested members
  - Lower COLA
  - Longer final average pay periods and salary increase limits for some members
  - Lower benefits for new employees
- Legislature diluted recommendations
- Actuarial assumptions continued to be more optimistic than typical

Case Study Pension Reform

System Messages After Reform

- Plan will work
- Give it time
- Don’t review for five years
- We’re on track

Case Study Pension Reform

Reality After Reform

- Shortfall compared to funding targets from start and increased each year
- Funded ratio steadily declined
- Funding period continued to increase while remaining years in initial objective decreased
- Investment returns were not major issue but a combination of other factors were, including expected pay and participation growth
- Assumptions strengthened and funding policy modified to extend funding period

Case Study Pension Reform

December 31, 2016 Status

- Funded ratio declined to just over 50% based on fair value of assets
- Plan assets insufficient to cover benefits owed to retirees alone
- Unfunded liabilities over $30B
- Funding period in excess of 60 years
- Immediate need for 8% of pay additional funding without benefit changes
- Employer contributions now at 20% of pay plus 8% member contributions
- GASB net pension liability over $50B due to fund depletion projection
- Investment return assumption currently 7.25%
- System began call for reform in 2017

Case Study Pension Reform

Activity in 2018 Legislative Session

- System proposed additional reforms including:
  - Employer contribution increases
  - Member contribution increases
  - COLA cut back
  - Lower benefits for new employees
  - Automatic adjustments to keep future funding on course
  - Extending full funding period to 30 years from 2020
- Need for reform questioned in light of past system messages and lack of clear policies and objectives
- Higher member and employer contributions resisted and State funding proposed

Case Study Pension Reform

Activity in 2018 Legislative Session

- Numerous competing proposals including expanded defined contribution options
- Lots of finger pointing and blame
- Objective and effective governance questioned leading to proposal to add legislative oversight committee
- Continuation of defined benefit plan at risk

Case Study Pension Reform

Reform bill passed at 11th hour of last day of session

- Compromise bill containing much of system's proposal including COLA reduction and new tier changes
- Defined contribution plan option extended to other members (not schools) with resulting higher employer total contribution
- Higher member contributions
- State funding in lieu of higher employer contributions
- Automatic adjustment feature retained
- Standing legislative oversight committee retained

Lessons Learned

- Mature retirement systems can get into trouble quickly and better risk assessment is needed
- A fix may be only temporary, particularly if based on optimistic assumptions
- Reporting transparency is essential
- Delay in recognizing and communicating bad news compounds the problem
- Even small experience variations may be significant
- Typical actuarial practices are part of the problem including:
  - Favoring optimistic investment returns, inflation, and payroll growth assumptions
  - Very long planning periods without regard to shorter term consequences
  - Lengthy, level percent of payroll funding of unfunded liabilities resulting in negative amortization

Lessons Learned

- Contributions less than the actuarially required contribution require immediate corrective actions with employer and/or member contribution increases and/or benefit reductions
- A funding policy is useless if modified when convenient or when goals not met
- Tough to solve problem only with increased contributions or benefit changes for just new employees
- Employer's ability or willingness to fund is limited and there is a practical limit to employee contributions
- New employees are being asked to bear unreasonable share of burden
- Sound governance based on facts and clear objectives is frequently missing in troubled plans
- Stakeholders lack of confidence in ability, or willingness, to manage liabilities threatens survival of defined benefit plans

SDRS Synergy with SDIC has Contributed to Success

- SDRS is managed based on clearly stated and measurable objectives
- A strategic long-term approach is followed considering our fixed resources and results in:
  - Variable benefits and automatic COLA adjustments move with markets without requiring legislative approval
  - 100% funded status achieved under most conditions
- Recent changes in provisions and acceptable funding thresholds mitigate and manage risks:
  - Employer balance sheet and credit rating risk is reduced
  - Member benefits are automatically adjusted based on affordability
  - Member risk of additional benefit changes is lessened
  - Experience loss risk mitigated through more conservative assumptions
- Stakeholder buy-in including difficult corrective actions when required
- Benefit efficiency—identify/prevent benefit manipulation and benefits that exceed goals

SDRS Synergy with SDIC has Contributed to Success

- Administrative efficiency—quality customer service at a low cost
- Contrarian—approach does not follow the norm
- 6.5% investment return assumption aligned with SDIC outlook considering contributions above minimum and dynamic asset allocation

SDRS Update

- Established framework for future benefit changes:
  - If required due to failure to meet funding goals
  - If permitted due to favorable experience that meets Board's threshold
- The SDRS story is becoming recognized nationally and influencing other practices
- Risk measures have been expanded and will be refined in accordance with actuarial standards of practice and unique SDRS policies
- Our work isn't done: Increasing plan maturity and volatile investment markets will require constant monitoring and adaptation to changing conditions