Annual Report of the Funded Status of the South Dakota Retirement System to the Governor and Legislature of the State of South Dakota

January 2017

South Dakota Retirement System
222 East Capitol Suite 8
PO Box 1098
Pierre, South Dakota 57501-1098
Toll-Free (888) 605-SDRS
Telephone (605) 773-3731
www.sdrs.sd.gov

South Dakota Retirement System

January 10, 2017

To the Governor and the Legislature of the State of South Dakota

We are pleased to present the Annual Report of the Funded Status of the South Dakota Retirement System (SDRS) for the fiscal year ended June 30, 2016. The information in this report focuses on the funded status and financial condition of SDRS – the consolidated retirement system in South Dakota for most public employees.

As of June 30, 2016, SDRS is 100 percent funded based on the Actuarial Value of Assets and 96.9 percent funded based on the Fair Value of Assets. That marks only the fifth time since 1986 that SDRS is less than 100 percent funded on a Fair Value basis and the first time since paying off the Unfunded Liability in 2013.

On an accounting basis, 2016 marks the first time SDRS and its participating employers will report a Net Pension Liability under the Governmental Accounting Standards; however, the total impact on employers' balance sheets will remain an asset due to the smoothing of changes as required in those standards.

For fiscal year 2016, the SDRS Trust Fund, under the management of the South Dakota Investment Council, produced a net investment return of 0.2 percent. This was less than both the Council's investment benchmark and the SDRS long-term investment return assumption.

When 2016 results are released for all statewide plans, SDRS will remain among the best funded public plans nationally with funded ratios approximately 30 percent greater than the average of all statewide plans. This is even more impressive considering that the SDRS investment return and mortality assumptions are among the most conservative used by statewide plans.

These exceptional historical achievements of SDRS have been realized as a result of the conservative oversight of the Board of Trustees, the outstanding long-term success of the South Dakota Investment Council, and the ongoing support of the Executive and Legislative branches of state government and the SDRS membership. SDRS continues to be one of the most financially sound public employee retirement systems in the nation and is well positioned to confront the challenges of the future.

In late 2016, the SDRS Board of Trustees took action to prepare for expected future economic volatility and lower inflation and investment returns. The Board adopted significantly more conservative actuarial assumptions for future inflation, investment return, and payroll growth that will be effective with the June 30, 2017, actuarial valuation and reflect the Board's most realistic future expectations. In addition, the Board is proposing legislation that will automatically adjust SDRS benefits to changing economic environments, primarily through changes to future Cost-of-Living Adjustments (COLA). The proposed change directly links the COLA to both annual inflation and the affordability of the increases for all members. The Board is also proposing changing the definition of compensation and final average compensation to limit losses from large, late-career compensation increases, thereby enhancing equity among all members.

The enclosed information highlights the SDRS Mission Statement and the Board's funding objectives. It also provides an in-depth summary of the current SDRS funded status and comparisons with the objectives, investment and actuarial experience for the year, comparative data, and initiatives of SDRS. Included is a summary of the significant legislation the Board of Trustees is proposing for the 2017 Legislative Session.

The legislative changes made last year for new employees and the proposed changes for the 2017 session position SDRS for long-term sustainability. Looking to the future, the SDRS Board of Trustees will continue to analyze risks and anticipated future experience and evaluate SDRS sustainability and long-term benefit goals. SDRS remains fully committed to the SDRS hybrid defined benefit plan model that is fiscally responsible and efficient and provides adequate retirement income to our members within our fixed, statutory contributions. In addition, SDRS strives to provide outstanding member service at the lowest possible cost.

We welcome your comments and questions.

Sincerely,

Robert A. Wylie
Executive Director

SDRS MISSION STATEMENT

To plan, implement, manage, and efficiently administer financially sustainable retirement programs within the fixed resources available.

SDRS CORE VALUES

Provide members and their families the opportunity to achieve financial security at retirement, death, or disability by delivering appropriate and equitable benefits, and promote, encourage, and facilitate additional member savings for retirement.

SDRS LONG-TERM INCOME REPLACEMENT GOALS

Provide lifetime income replacement of at least 55 percent of final average compensation for career employees in each membership class.

Promote total lifetime income replacement of at least 85 percent of final average compensation, including income from SDRS, Social Security, and personal retirement savings of at least one time annual compensation at retirement.

FUNDING POLICY OBJECTIVES

The SDRS Board's Funding Policy includes the following Funding Objectives:

- Fair (Market) Value Funded Ratio[1] of 100% or greater.
- Actuarial Value Funded Ratio[1] of 100%.
- Ratio of Fair Value of Assets to Actuarial Value that exceeds 100%, resulting in a Cushion[2].
- A fully funded System with no Unfunded Liabilities.
- Statutorily fixed contributions that meet or exceed the actuarially required contribution of Normal Cost (the cost of benefits earned each year), expenses, and payment of Unfunded Liabilities over a period not to exceed 20 years when Unfunded Liabilities exist.

[1] The Funded Ratios compare the System assets at Fair Value and Actuarial Value (the expected value) to the liabilities of the System for all benefits earned to date. A value of 100 percent or greater means all liabilities have been funded to date and no Unfunded Liabilities exist.

[2] The Cushion represents past favorable experience and is not considered in determining the funding requirements of SDRS. It is available to offset future unfavorable experience.

CURRENT SDRS FUNDED STATUS

MEETING THE BOARD'S FUNDING OBJECTIVES

The 2016 actuarial valuation of SDRS confirms that three of the Board's five funding objectives have been met as follows:

- Fair Value Funded Ratio = 96.9% (Funding Objective of 100% not met)
- ✓ Actuarial Value Funded Ratio = 100.0%
- Deficit of $338M (Fair Value of Assets less than the Actuarial Value by 3.1% - Funding Objective not met)
- ✓ Fully funded System with no Unfunded Liabilities (based on the Actuarial Value of Assets)
- ✓ Statutory contributions that exceed the actuarially determined contributions by 1.75% of pay, resulting in a Risk Management Contribution

FISCAL YEAR 2016 SDRS EXPERIENCE

The SDRS money-weighted investment return based on the Fair Value of Assets was 0.2 percent after investment expense. This return was less than the assumed annual rate of return of 7.25 percent, resulting in an actuarial investment loss of $716M.

Actual Investment Return	$ 23M
Less Expected Return	(739M)
Actuarial Investment Gain/(Loss)	$ (716M)

In addition, the SDRS liabilities were 0.7 percent higher ($77M) than expected as of June 30, 2016.

No changes were made in SDRS benefits or actuarial assumptions during the year.

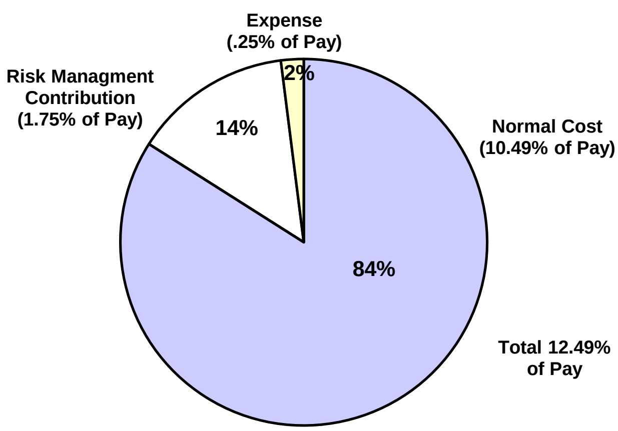
The 2016 experience combined to reduce the SDRS Fair Value Funded Ratio from 104.1 percent at the beginning of the year to 96.9 percent at the end of the year.

DISTRIBUTION OF FUNDING REQUIREMENTS

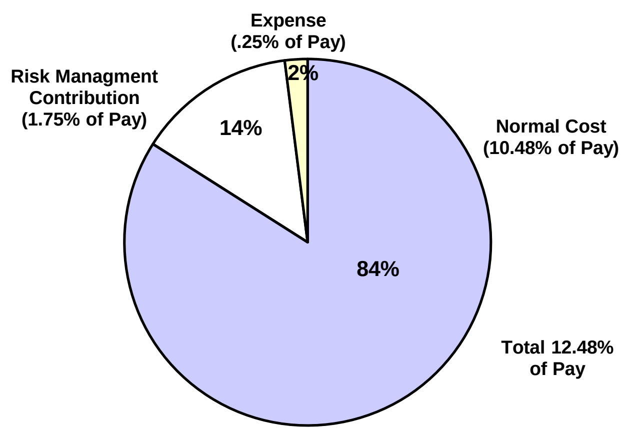
SDRS paid off its Unfunded Liabilities in 2013 from its Cushion. As a result, SDRS has had no Unfunded Liability since June 30, 2013. Current statutorily required Employer and Member Contributions exceed the actuarially determined contribution (the Normal Cost and expenses of the System) and are then able to fund a Risk Management Contribution that will build the Cushion to protect the System against future unfavorable experience.

For fiscal year 2016, fixed, statutory contributions were sufficient to pay the Normal Cost and expenses and provide a Risk Management Contribution of 1.75 percent of pay to increase the Cushion. For fiscal year 2017, the Risk Management Contribution will again be 1.75 percent of pay.

June 30, 2016



June 30, 2015



Funding Policy Contribution Rate:	10.74% of Pay	Funding Policy Contribution Rate:	10.73% of Pay
Total Anticipated Contribution Rate:	12.49% of Pay	Total Anticipated Contribution Rate:	12.48% of Pay

SDRS will have future Risk Management Contributions ($31M for FY 2016) available to meet its obligations. As of June 30, 2016, the Fair Value of Assets was $338M less than the Actuarial Value of Assets, resulting in a Deficit of the same amount. If all future actuarial assumptions are met, the Risk Management Contribution will eliminate the Deficit in approximately 14 years.

FUNDED RATIO COMPARISONS

The long-term experience of SDRS has been very favorable, resulting in a funded status that exceeds virtually all other statewide public retirement systems.

	June 30, 2016		June 30, 2015	
	SDRS	Average[1]	SDRS	Average[1]
Funded Ratio (Actuarial Value of Assets)	100%	68%	100%	74%
Funded Ratio (Fair Value of Assets)	97%	68%	104%	74%

[1] 2015 averages from 2016 Wilshire Associates State Retirement Plan Funding Report for statewide public systems. 2016 averages estimated based on 2015 data from the 2016 Wilshire report.

SDRS currently has no Unfunded Liability based on the Actuarial Value of Assets. To put this into perspective, if SDRS was 68 percent funded like the national average, the System would have an Unfunded Liability of $3.5 billion.

HISTORY OF SDRS FUNDED RATIOS

The SDRS Funded Ratios since consolidation in 1974 are shown below.

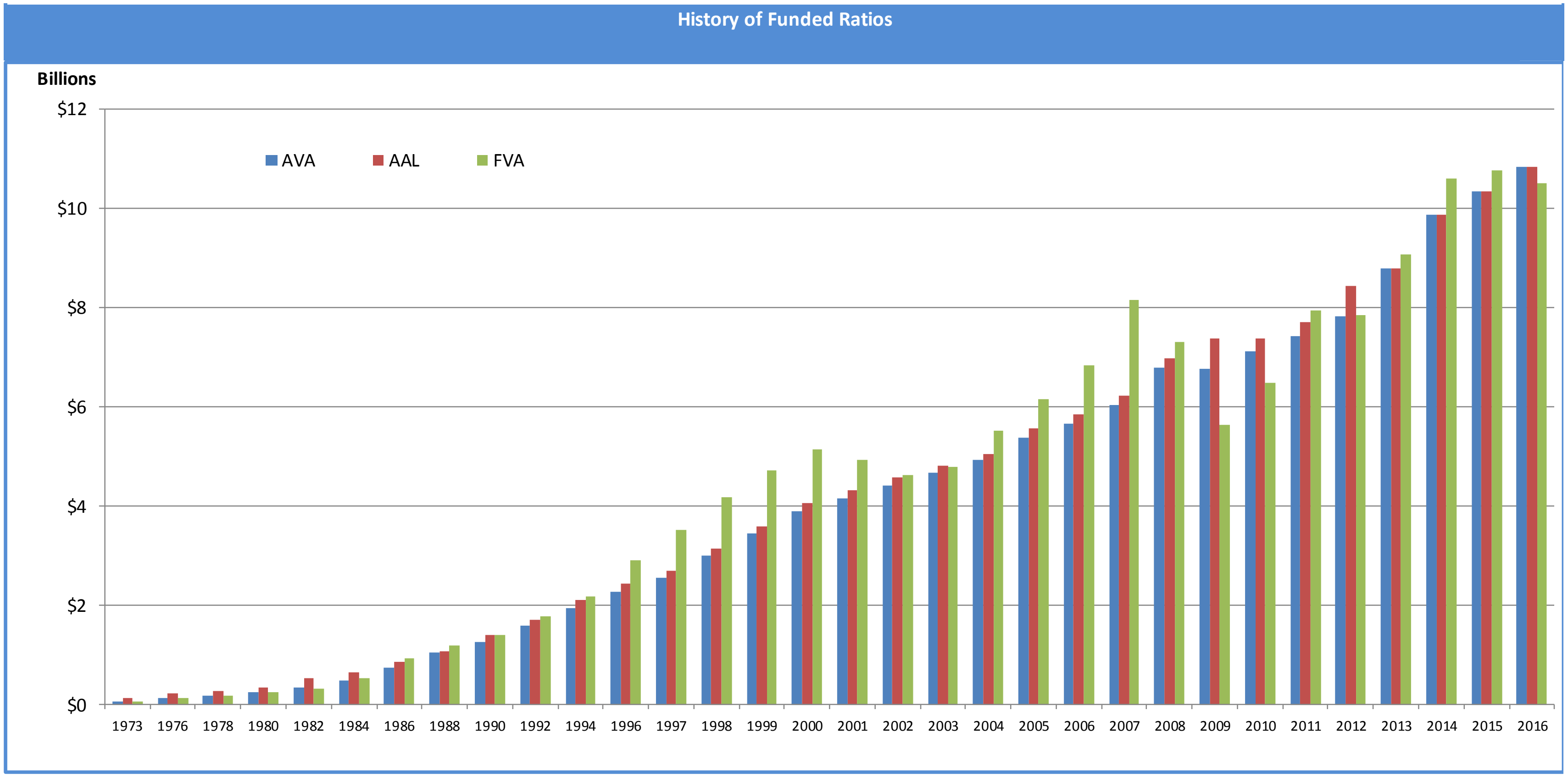
The SDRS Fair Value Funded Ratio:

- Was 40% in 1973.
- Has been over 75% each year since 1984.
- Has been over 100% in 21 of the last 26 actuarial valuations.
- Decreased to 76% as a result of the significant asset losses suffered in 2008 and 2009 due to the Great Recession
- Increased to 107% as of June 30, 2014, as a result of corrective actions in 2010 and subsequent asset gains, despite significant increases in liabilities as a result of strengthened actuarial assumptions.
- Decreased from 107% due to lower than assumed investment performance in fiscal years 2015 and 2016.

The SDRS Actuarial Value Funded Ratio:

- Was 40% in 1973.
- Has been over 90% each year since 1988.
- Dropped to 92% in 2009 as a result of the significant asset losses suffered in 2008 and 2009 due to the Great Recession.
- Increased to over 95% in 2010 and 2011 due to asset gains since 2009 and corrective actions in 2010.
- Decreased to 93% due to the demographic and economic assumption changes in 2012.
- Increased to 100% in 2013 after Unfunded Liabilities paid off and has remained at 100% since.

SDRS Funded Status Report



Fair Value Funded Ratio (%)	40%	57%	68%	76%	63%	81%	106%	111%	101%	104%	103%	120%	130%	133%	132%	126%	114%	101%	99%	109%	111%	117%	131%	105%	76%	88%	103%	93%	103%	107%	104%	97%
Actuarial Value Funded Ratio (%)	40%	57%	68%	76%	67%	75%	85%	97%	91%	94%	92%	94%	95%	96%	97%	95%	96%	97%	97%	98%	97%	97%	97%	97%	92%	96%	96%	93%	100%	100%	100%	100%
Funding Period (years)	41	19	19	9	28	18	37	6	46	16	38	30	23	22	21	20	20	20	20	20	20	20	20	20	N/A[1]	30	30	29	N/A[2]	N/A[2]	N/A[2]	N/A[2]
% of Actuarially Required Contributions Made	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	91%[1]	100%	100%	100%	100%	100%	100%	100%

[1] Fixed, statutory Member and Employer contributions were not sufficient to fund the Frozen Unfunded Actuarial Accrued Liability as of June 30, 2009.

[2] SDRS was fully funded with no Frozen Unfunded Actuarial Accrued Liability (based on the Actuarial Value of Assets) as of June 30, 2013 through June 30, 2016.

SDRS

SDRS ACTUARIAL ASSUMPTION CHANGES

The Board of Trustees manages SDRS benefits within the fixed, statutory member and employer contributions and investment earnings. The Board makes long-term cost projections using a number of actuarial assumptions about future unknown events, including:

- The rate of investment return earned on SDRS assets,
- Inflation, and
- Wage growth.

Based on the current experience analysis of the economic assumptions, the Board adopted significant changes, effective for the June 30, 2017, actuarial valuation as follows:

- Reduced the annual price inflation assumption from 3.25% to 2.25%,
- Reduced the annual investment return assumption from 7.25% through June 30, 2017 and 7.50% thereafter to 6.50%, and
- Reduced the annual wage growth assumptions from 3.75% to 3.00%.

While changes in actuarial assumptions do not change the actual costs of SDRS, they do change the estimate of the future costs. These changes will provide the most realistic estimate for future planning. Had the assumption changes been effective for the 2016 actuarial valuation, SDRS' Fair Value Funded Ratio would have been 87 percent and the statutory contributions would not have been adequate to fund System benefits. As such, the current benefit structure is not affordable.

SDRS INITIATIVES RESULTING FROM ACTUARIAL ASSUMPTION CHANGES

Based on the adopted changes in the SDRS actuarial assumptions and the associated reduction in funded status, the Board is required to recommend legislation in 2017 to bring the System back into actuarial balance. The Board recommended changes to the COLA and final average compensation (FAC) to offset the lower income expectations.

SDRS COLA

The COLA is designed to partially protect retirees from a loss of purchasing power due to inflation after retirement. The Board is proposing legislation that ties the COLA directly to the annual inflation rate and the resources SDRS has available to pay for it.

- If SDRS is 100% funded or better, the COLA will equal inflation (CPI-W):
    - Maximum: 3.5%
    - Minimum: 0.5%
- If SDRS is less than 100% funded, the COLA will equal inflation (CPI-W):
    - Maximum: reduced to the actuarially calculated percentage that brings SDRS' funded status back to 100%
    - Minimum: 0.5%

These proposed changes to the COLA provide a benefit structure that varies directly and automatically with SDRS experience and affordability. Under this structure, the COLA would equal inflation most of the time and has the potential to be less than inflation only when it is not affordable or inflation is extraordinarily high.

Because the COLA affects all SDRS benefit payments – those currently being paid and those to be paid in the future – this proposed change in the COLA is equitable to all SDRS members. Under the proposal, the new COLA structure would apply to benefits payable July 1, 2018.

COMPENSATION AND FINAL AVERAGE COMPENSATION (FAC)

The incidence of large, late-career pay increases has grown over the past several years, resulting in a cost issue for SDRS and an equity issue for members. While some late-career pay increases are due to a promotion, an increase in job duties, or an across-the-board pay increase, other increases are the result of systematic attempts to maximize SDRS benefits that are contrary to statutory provisions. The Board is proposing to tighten the definition of compensation for SDRS purposes and make the reporting of compensation that is inconsistent with the definition of compensation a Class 1 misdemeanor. In addition, SDRS will increase its review of employer reporting of compensation for compliance with the law.

Large, late-career pay increases impact a member's FAC, which is used to calculate SDRS benefits. The Board is proposing to phase in a longer FAC calculation period for Foundation members, as follows:

- Three-year FAC for retirements until June 30, 2021;
- Four-year FAC for retirements from July 1, 2021, to June 30, 2022;
- Five-year FAC for retirements after July 1, 2022; and
- FAC cannot be less than the June 30, 2017, FAC through June 30, 2022.

In addition, the Board is proposing to extend the application of the current 105 percent compensation cap in the member's final year to each of the years used in determining the FAC, with a phase-in period similar to that being proposed for the FAC.

Under the proposed change, member and employer contributions on compensation in excess of the cap would be paid, with actual investment earnings, to the member at retirement.

SDRS 2017 LEGISLATION

The SDRS Board of Trustees will submit the following bills for consideration during the 2017 Legislative Session:

- HB 1016: An Act to revise the methodology for calculating the cost of living adjustment for South Dakota Retirement System benefits, to revise reporting conditions, and to provide uniform terminology.
- HB 1017: An Act to revise the definition of compensation for purposes of the South Dakota Retirement System, to provide a penalty for falsely reporting compensation, and to update references to the Internal Revenue Code.
- HB 1018: An Act to revise the computation of final average compensation for benefits relating to the South Dakota Retirement System.
- HB 1019: An Act to revise certain provisions relating to the salary of the executive director of the South Dakota Retirement System.

Appendix A: Key SDRS Metrics

Membership		
Valuation Date	**June 30, 2016**	**June 30, 2015**
Active Members	39,940	39,383
Benefit Recipients	26,554	25,656
Vested Terminated Members	9,382	8,993
Non-Vested Terminated Members	8,172	7,601
Total System Members	84,048	81,633

Cash Flow		
Year Ended	**June 30, 2016**	**June 30, 2015**
Contributions	$ 229M	$ 220M
Benefit Payments and Expenses	$ (514M)	$ (486M)
Net Investment Income	$ 23M	$ 436M

Funded Status		
Valuation Date	**June 30, 2016**	**June 30, 2015**
Fair Value of Assets	$ 10.5B	$ 10.8B
Actuarial Value of Assets	$ 10.9B	$ 10.4B
Actuarial Accrued Liability	$ 10.9B	$ 10.4B
Actuarial Value Funded Ratio	100.0%	100.0%
Fair Value Funded Ratio	96.9%	104.1%
Cushion/(Deficit)	$(338M)	$ 424M

Statutory and Actuarially Determined Contribution Rates		
Valuation Date	**June 30, 2016**	**June 30, 2015**
Fixed, Statutory Member and Employer Contribution Rate	12.489%	12.482%
Normal Cost Contribution Rate	10.494%	10.485%
Expense Allowance	0.250%	0.250%
Amortization of Frozen Unfunded Actuarial Accrued Liability	0.000%	0.000%
Actuarially Determined Contribution Rate	10.744%	10.735%
Risk Management Contribution Rate*	1.745%	1.747%

***** If 2016 results were determined on the Fair Value of Assets, the Unfunded Actuarial Accrued Liability (UAAL) would be $338M, the Amortization of the UAAL would be 1.745% of pay which would reduce the Risk Management Contribution rate to 0% and pay off the UAAL in approximately 14 years.

Appendix B: SDRS Benefits

The following exhibit presents a schedule of the annualized benefits payable as of July 1, 2016, by SDRS on a county-by-county basis.

County	Annual Benefits	County	Annual Benefits	County	Annual Benefits
Aurora	$ 1,814,506	Fall River	$ 3,661,388	McPherson	$ 825,356
Beadle	$ 8,605,671	Faulk	$ 1,338,632	Meade	$ 10,640,292
Bennett	$ 660,162	Grant	$ 3,205,878	Mellette	$ 607,940
Bon Homme	$ 4,574,104	Gregory	$ 2,473,606	Miner	$ 1,281,949
Brookings	$ 32,849,352	Haakon	$ 767,586	Minnehaha	$ 73,720,923
Brown	$ 21,964,891	Hamlin	$ 2,498,020	Moody	$ 2,612,314
Brule	$ 2,418,477	Hand	$ 1,465,311	Oglala Lakota	$ 311,416
Buffalo	$ 31,509	Hanson	$ 784,131	Pennington	$ 63,469,284
Butte	$ 4,219,415	Harding	$ 260,553	Perkins	$ 1,216,117
Campbell	$ 866,531	Hughes	$ 31,991,456	Potter	$ 1,636,298
Charles Mix	$ 3,968,879	Hutchinson	$ 3,969,147	Roberts	$ 3,986,540
Clark	$ 1,562,936	Hyde	$ 723,211	Sanborn	$ 990,119
Clay	$ 14,813,379	Jackson	$ 936,261	Spink	$ 5,865,401
Codington	$ 16,021,212	Jerauld	$ 816,594	Stanley	$ 4,440,183
Corson	$ 723,868	Jones	$ 649,486	Sully	$ 770,969
Custer	$ 5,589,657	Kingsbury	$ 2,792,300	Todd	$ 1,106,279
Davison	$ 10,643,611	Lake	$ 7,684,416	Tripp	$ 2,900,236
Day	$ 3,040,977	Lawrence	$ 17,217,586	Turner	$ 3,305,469
Deuel	$ 1,593,596	Lincoln	$ 6,236,415	Union	$ 5,614,194
Dewey	$ 1,162,306	Lyman	$ 1,444,445	Walworth	$ 3,593,019
Douglas	$ 1,405,067	Marshall	$ 2,722,712	Yankton	$ 14,813,188
Edmunds	$ 1,815,271	McCook	$ 2,438,027	Ziebach	$ 353,245

Total SDRS Benefits Paid in South Dakota	**$ 440,483,269**
Total SDRS Benefits Paid Outside of South Dakota	**$ 60,265,843**
Total SDRS Benefits	**$ 500,749,112**

Total Cement Plant Benefits Paid in South Dakota	**$3,946,229**
Total Cement Plant Benefits Paid Outside South Dakota	**$341,133**
Total Cement Plant Benefits Paid	**$4,287,362**

Total SDRS and Cement Plant Benefits Paid	**$ 505,036,474**

Appendix C: Plan Maturity Measures

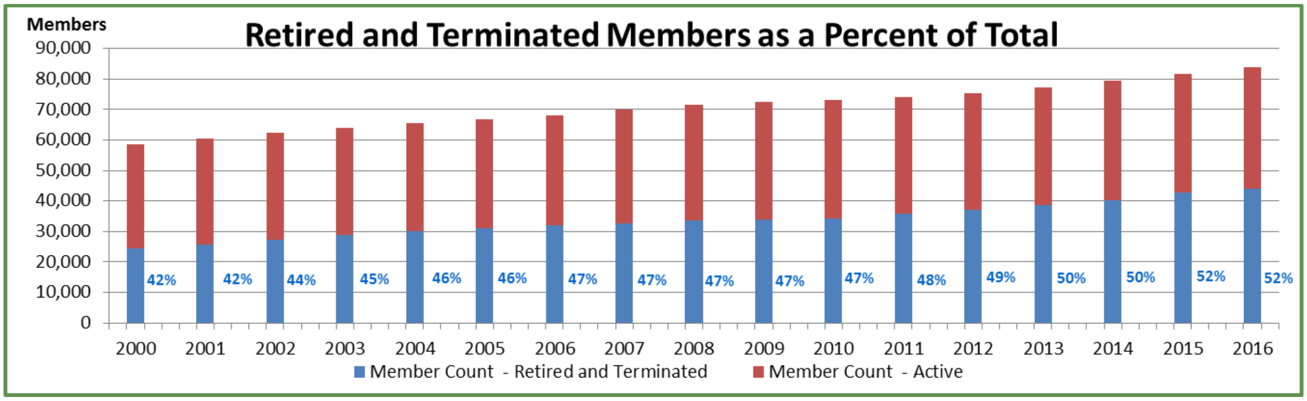
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2016*
Fair Value Funded Ratio	126%	114%	101%	99%	109%	111%	117%	131%	105%	76%	88%	103%	93%	103%	107%	104%	97%	87%
Contributions as % of AAL	2.4%	2.5%	2.9%	2.9%	2.9%	2.7%	2.6%	2.6%	2.4%	2.4%	2.5%	2.4%	2.2%	2.2%	2.0%	2.0%	2.0%	1.8%

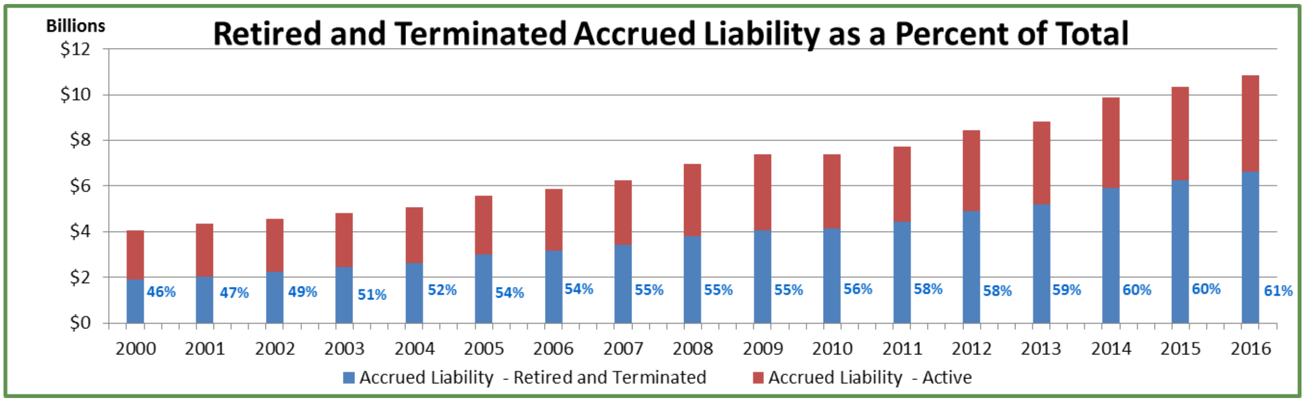
The preceding chart shows both the historical Fair Value Funded Ratio (FVFR) and the total contributions as a percent of the Actuarial Accrued Liability (AAL). Ideally, a defined benefit plan accumulates assets as benefits accrue, resulting in a FVFR near 100%. SDRS has accomplished this consistently and is better funded than the vast majority of public sector plans.

The chart also compares active member payroll and member and employer contributions to liabilities and assets. Payroll and contributions have risen more slowly than the liabilities and assets, indicating a maturing pension plan. For instance, in 2002-2004, contributions were 2.9 percent of the AAL, but by 2016, based on the current assumptions, contributions were only 2.0 percent of the AAL. The 2016 actuarial valuation indicated that the cost of benefits accruing during the year were 86 percent of member and employer contributions. The remaining 14 percent of contributions currently fund the Risk Management Contribution but are available to amortize an Unfunded Actuarial Accrued Liability (UAAL), when one exists. As a result only 14 percent of contributions, or 0.25 percent of the AAL, is available to amortize any UAAL, should one exist in the future. For example, an UAAL as small as 1 percent of the AAL would require four years of Risk Management Contributions to amortize and the maximum UAAL that the Risk Management Contribution could amortize would be 5 percent of the AAL. This dramatically underscores the critical need of SDRS to remain fully funded as it continues to mature.

The right hand column of the chart estimates the 2016 AAL if the newly adopted economic assumptions had been effective for the 2016 actuarial valuation. If these assumptions were in place, SDRS would have had an UAAL of approximately $1.5 billion which would have required a recommendation for corrective actions under SDCL 3-12-122. This illustrates the need for the 2017 legislation recommended by the SDRS Board of Trustees.

Appendix C: Plan Maturity Measures





The above charts also illustrate the increasing maturity of SDRS. Since 2000, the percentage of total members who are retired or terminated has increased from 42 percent to 52 percent. At the same time, the portion of the total AAL due to retired or terminated members has increased from 46 percent to 61 percent. As the percentage of members who are no longer active increases (and their percentage of the total liability also increases even more), the ability to fund any UAAL through contributions based on the compensation of the active membership diminishes. This again demonstrates the importance of a mature retirement system remaining fully funded.

South Dakota Retirement System
222 E Capitol, Suite 8
PO Box 1098
Pierre, SD 57501

Toll-free: 1-888-605-SDRS (7377)
Local: 1-605-773-3731

www.sdrs.sd.gov