

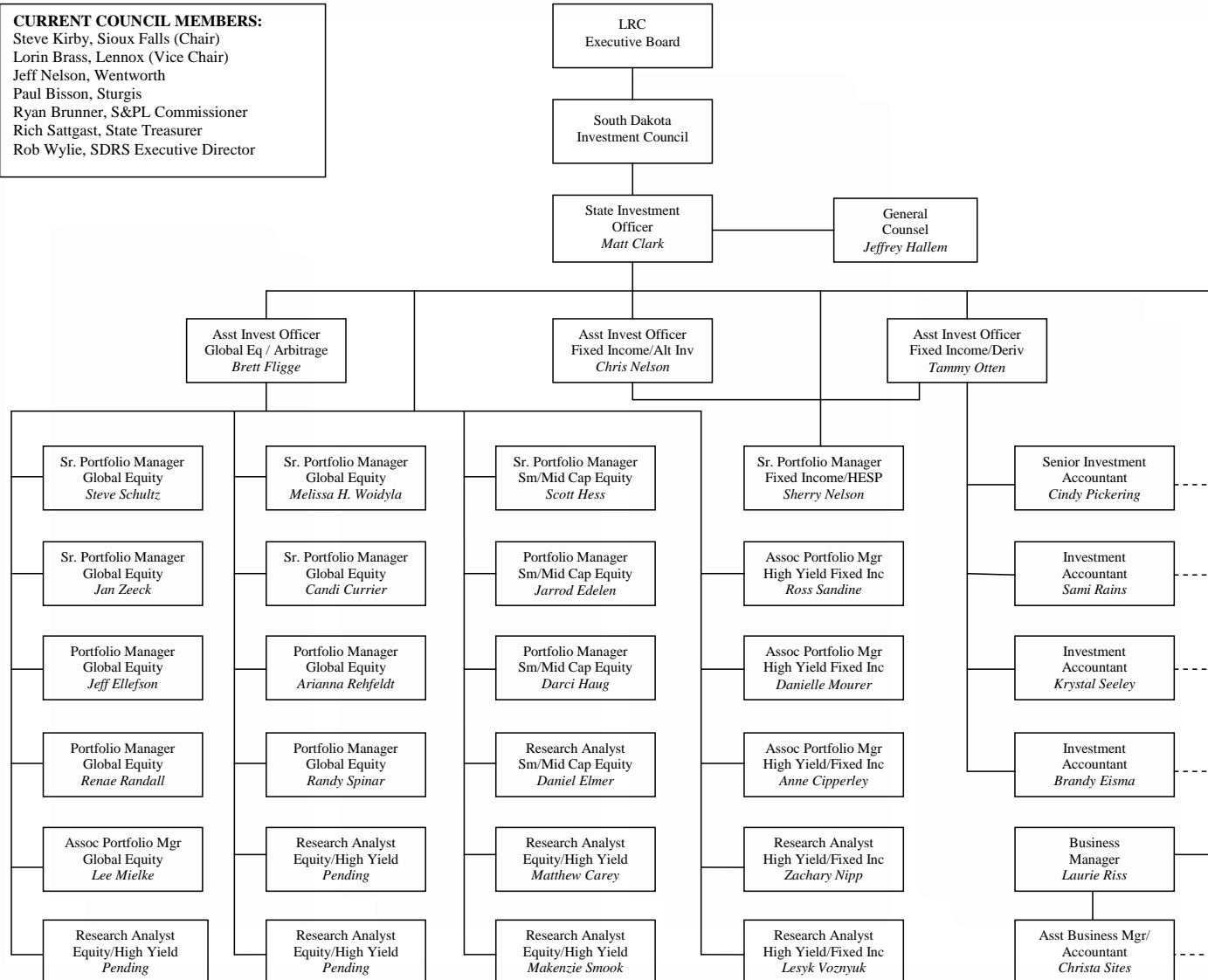
South Dakota Investment Council
Investment Performance & FY 2019 Budget Request
Presented to LRC Executive Board
August 28, 2017

- Organization Chart
- Assets
- Investment Performance
- Cost Efficiency
- Compensation Overview
- Budget Funding Sources
- Long-Term Plan
- FY 2017 Year-End Budget Review
- FY 2019 Budget Request
- Trust Fund Summary
- Appendix

Organization Chart

CURRENT COUNCIL MEMBERS:

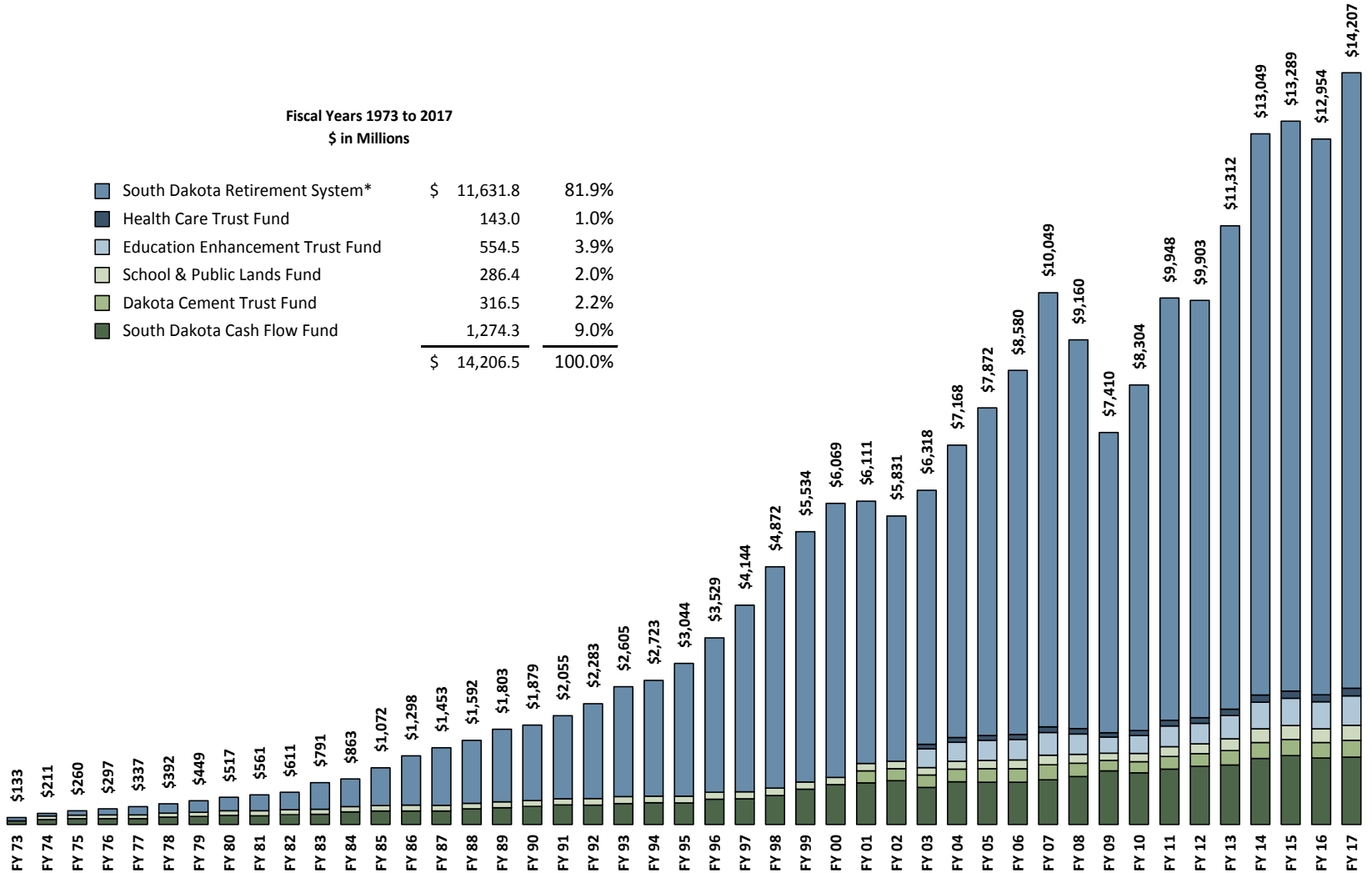
Steve Kirby, Sioux Falls (Chair)
 Lorin Brass, Lennox (Vice Chair)
 Jeff Nelson, Wentworth
 Paul Bisson, Sturgis
 Ryan Brunner, S&PL Commissioner
 Rich Sattgast, State Treasurer
 Rob Wylie, SDRS Executive Director



Assets

Fiscal Years 1973 to 2017
\$ in Millions

South Dakota Retirement System*	\$ 11,631.8	81.9%
Health Care Trust Fund	143.0	1.0%
Education Enhancement Trust Fund	554.5	3.9%
School & Public Lands Fund	286.4	2.0%
Dakota Cement Trust Fund	316.5	2.2%
South Dakota Cash Flow Fund	1,274.3	9.0%
	<u>\$ 14,206.5</u>	<u>100.0%</u>



*For purposes of this exhibit, South Dakota Cement Plant Retirement Fund assets, prior to consolidation on 4/1/2014, are included with South Dakota Retirement System assets.

Investment Performance

Returns vs. Benchmarks (unaudited)

	<u>FY 2017</u>	<u>4 Years Annualized FY 14 – 17</u>	<u>10 Years Annualized FY 08 – 17</u>
▪ SDRS Total Fund	13.81%	9.05%	6.47%
▪ Capital Market Benchmark	10.96%	8.18%	5.31%
Added Value	2.85%	.87%	1.16%
▪ State Fund Universe (est)	12.36%	8.30%	5.22%
Added Value	1.45%	.75%	1.25%
▪ Beginning FY 2017 SDRS Assets		\$10.502 billion	
▪ Ending FY 2017 SDRS Assets		\$11.632 billion	

Investment Performance

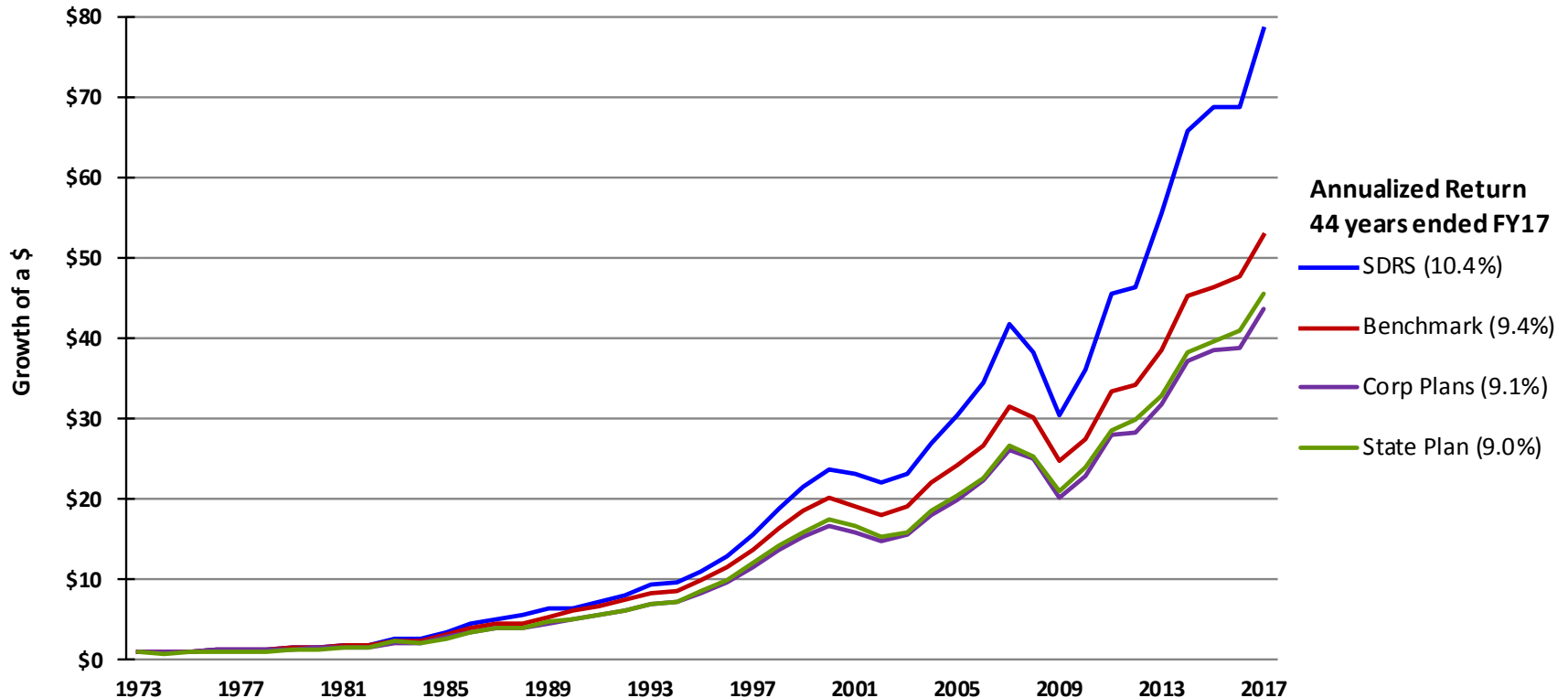
Earnings vs. Benchmarks (unaudited)

- Total SDRS dollars earned Fiscal Year 2017 \$1.465 million
- Total SDRS dollars earned last 4 years \$3.706 billion
- Total SDRS dollars earned last 10 years \$5.886 billion
- **Extra earnings** resulting from last 1, 4 and 10 years of performance over benchmark (not including compounding):

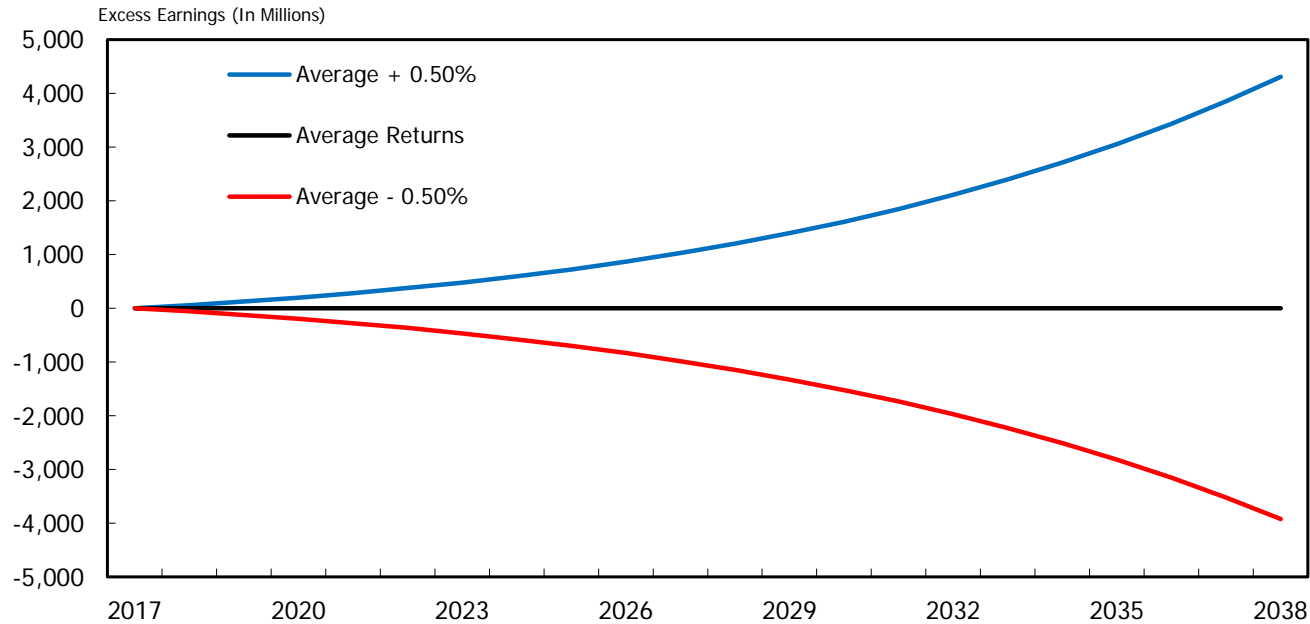
	<u>1 year</u>	<u>4 years</u>	<u>10 years</u>
○ vs. Capital Markets Benchmark	\$299 million	\$370 million	\$1.033 billion
○ vs. State Funds	\$153 million	\$323 million	\$1.092 billion

Superior returns add up over time

Cumulative returns for SDRS, Benchmark, Corporate plans, and other States



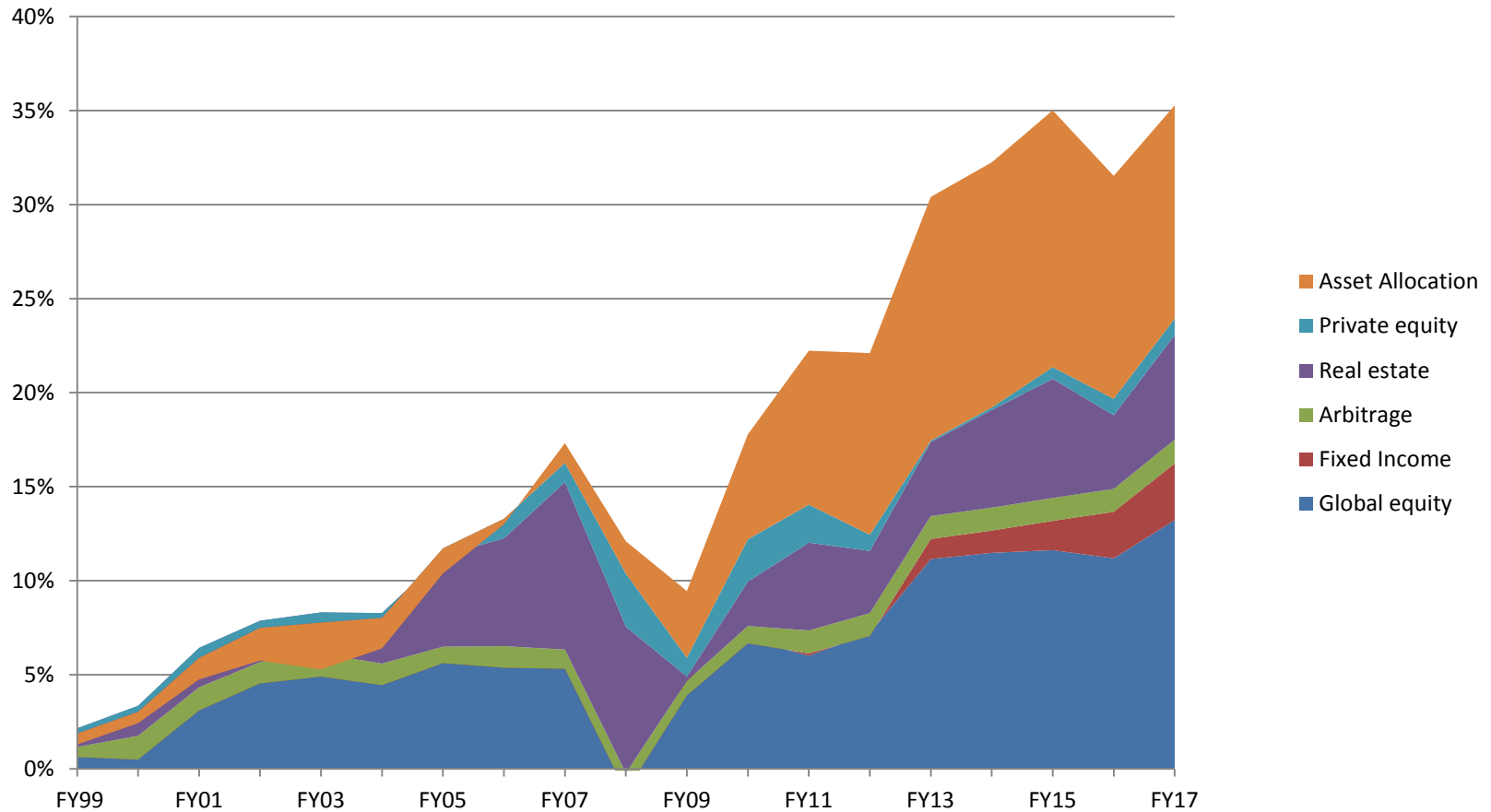
Potential Excess Earnings



- SDIC 44-year outperformance = .98% annualized vs. benchmark
- Outperformance of .5% next 20 years = extra \$4.3 billion
- Underperformance of .5% = cost to retirement system of \$3.9 billion.

Many pistons contribute

Cumulative added value by source FY99 to FY17



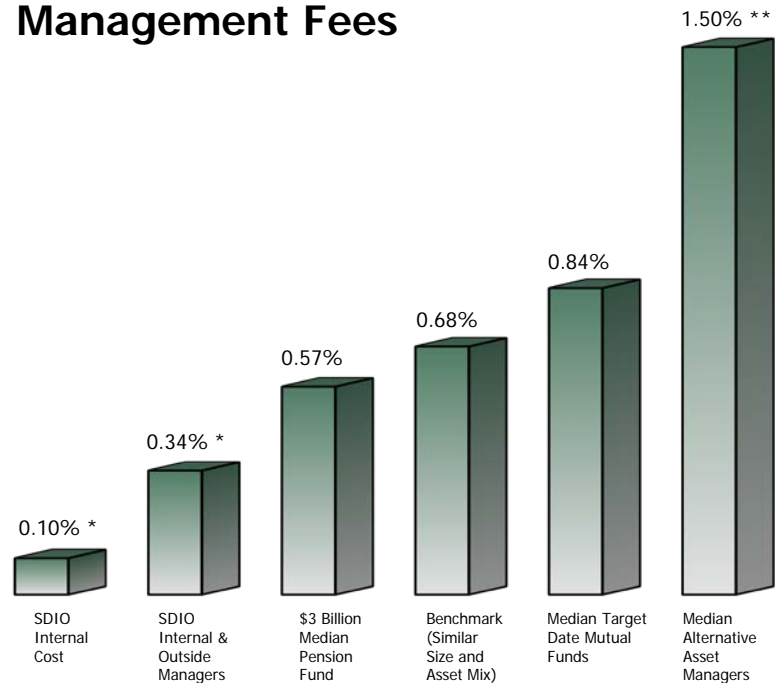
Every asset category has good and bad years

Annual added or detracted value by source

Asset Class	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
Global equity	0.8%	-0.1%	2.9%	1.9%	0.0%	-0.4%	0.8%	-0.3%	-0.1%	-6.2%	5.6%	2.1%	-0.8%	1.1%	3.7%	0.3%	0.1%	-0.4%	1.8%
Fixed Income	-0.1%	-0.1%	-0.3%	-0.6%	0.3%	0.0%	0.3%	0.1%	0.0%	0.2%	-0.9%	0.6%	0.4%	-0.3%	1.2%	0.1%	0.4%	0.9%	0.5%
Arbitrage	0.5%	0.7%	0.0%	-0.1%	0.1%	-0.1%	-0.3%	0.3%	-0.1%	-0.2%	0.2%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Real estate	1.0%	0.6%	0.5%	0.1%	0.0%	0.5%	2.1%	0.9%	3.0%	-1.0%	-7.0%	2.1%	2.3%	-1.3%	0.6%	1.2%	1.1%	-2.3%	1.6%
Private equity	-0.3%	0.0%	-0.2%	0.2%	-0.2%	0.3%	0.7%	0.6%	-0.1%	1.8%	-1.8%	1.2%	-0.2%	-1.1%	-0.8%	0.1%	0.5%	0.3%	0.0%
Asset Allocation	-0.6%	0.0%	-0.6%	-0.6%	-0.7%	0.8%	0.1%	0.8%	1.0%	1.0%	1.5%	1.4%	1.9%	1.5%	2.1%	-0.3%	0.0%	-1.1%	-1.1%
Total	1.3%	1.1%	2.3%	1.0%	-0.4%	1.1%	3.7%	2.4%	3.8%	-4.5%	-2.4%	7.6%	3.8%	-0.1%	6.8%	1.4%	2.1%	-2.6%	2.9%

Cost Efficiency

Management Fees



Difference between SDIC cost of .34% and benchmark cost of .68% is \$48 million per year

* SDIC projected expenses for FY 2019 using adjusted assets and expected average performance incentives

** Plus 20% profit participation after preferred return

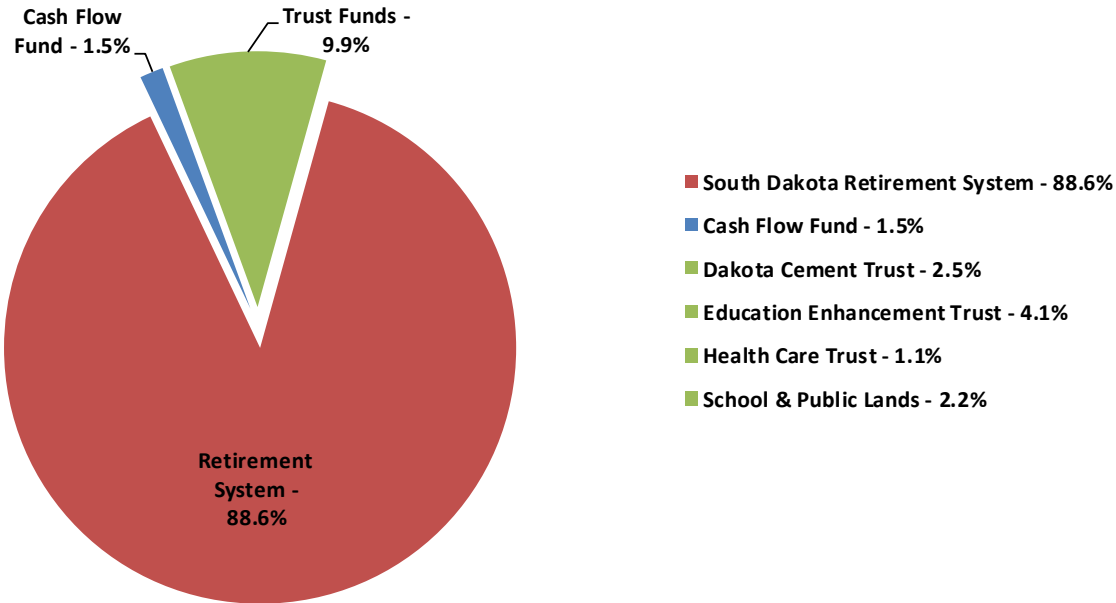
Compensation Overview

- Long term results have significantly exceeded benchmarks
 - Added 35% beyond benchmark to SDRS assets in the past 19 years
- Continued success dependent on high caliber team
 - Internally manage most assets using internally generated research
- Future team depends on retention of talent pipeline and trainers
 - Develop internally as cannot compete for top tier experienced talent
- Compensation plan aligned with goal of adding value over long term
 - Motivate superior long-term performance and retain successful staff
- Compensation plan updated in 2013
 - Council target is 70% of cost of living adjusted median industry pay to balance getting a good deal for South Dakota without losing the good deal if we cannot keep our people
 - Incorporates performance incentives
 - 2013 study showed compensation had fallen to 55%.

Compensation Overview, continued

- Council changes implemented in 2014 to get back to target
 - Expanded incentive compensation plan as opposed to adjusting base compensation
 - Incentives expanded to include longer term and stretch incentives and expected to average 80% (0% to 200%)
 - Incentives aligned with the goal of adding value and only paid if add value
- Compensation study updated in 2016
 - Indicated only modest slippage from target
- Cost efficient due to internal management capabilities
 - Securing team to preserve internal capabilities best chance to remain cost efficient
 - Internal cost .1% with expected average incentives

Budget Funding Sources



Budget funded by assets under management
0% General Fund appropriation

Note: S&PL share of SDIC expenses paid from earnings of Cash Flow Fund

Long Term Plan Executive Summary

Projected LTP Budget

	<u>FY 2019</u>	<u>FY 2024</u>	<u>FY 2029</u>
INVESTMENT OFFICE BUDGET			
Personal Services			
Number of Employees	34.25	36.25	34.25
Base Compensation - Total Staff	5,717,652.94	7,649,141.62	9,398,134.75
Staff Attorney (1/4 FTE) & Interns	63,933.86	71,457.45	79,866.39
Investment Council	6,227.00	6,227.00	6,227.00
Flexibility funds-Retirements & Resignations	158,589.75	177,252.23	198,110.86
Investment Incentive Maximum	9,931,509.11	13,509,864.94	16,628,238.06
Benefits	2,465,406.91	3,261,696.79	3,973,552.98
Total Personal Services	18,343,319.57	24,675,640.02	30,284,130.05
Operating Expenses			
Contractual Services	1,860,368	2,012,565	2,221,791
Travel	85,000	95,003	106,182
Office Supplies & Postage	9,000	10,059	11,243
Capital Assets	40,520	52,118	58,867
Total Operating Expenses	1,994,888	2,169,745	2,398,083
Total Investment Council Budget	20,338,208	26,845,385	32,682,213
ASSET SUMMARY *			
Internal Assets	11,928,456,969	14,711,908,915	18,154,490,944
External Assets	3,463,100,410	4,271,199,362	5,270,658,661
Total Assets	15,391,557,380	18,983,108,277	23,425,149,605
EXPENSE SUMMARY			
Internal Expenses	20,338,208	26,845,385	32,682,213
External Manager Fees	38,094,105	46,983,193	57,977,245
Total Expenses	58,432,312	73,828,578	90,659,458
UNIT COST SUMMARY **			
Internal Expenses as % of Total Assets	0.095%	0.100%	0.098%
Total Expenses as % of Total Assets	0.343%	0.348%	0.346%

* Projections based on long-term assumed returns applied to 6/30/17 assets. Updated each June 30.

**Unit Cost Summary uses assumed average investment performance incentives

Note: FY 19 amounts differ from actual budget request. The LTP includes an assumed 2.25% salary policy

FY 2017 Budget and Actual

	<u>Actual Exp FY 2017</u>	<u>Received FY 2017</u>	<u>Unexpended</u>
PERSONAL SERVICES			
TOTAL FTEs	31.25	32.25	
BASE COMPENSATION			
Base Compensation - Investment Staff	4,436,096	4,730,664	294,568 *
Base Comp - Accounting, Admin & Longevity	395,671	420,330	24,659
TOTAL STAFF - FULL TIME	4,831,767	5,150,994	319,226
P/T Staff Attorney & Interns	46,337	62,527	16,190
Investment Council	3,225	6,227	3,002
Retirement & resignation flexibility funds	0	155,100	155,100
Benefits	915,531	996,475	80,944
Total Base Compensation	5,796,861	6,371,323	574,462
Investment Performance Incentives			
Maximum Potential Investment Perf Incentive	3,917,062	8,921,550	5,004,488
Benefits	480,197	1,231,174	750,977
Total Investment Performance Incentives	4,397,259	10,152,724	5,755,465
Total Personal Services	10,194,120	16,524,047	6,329,927
OPERATING EXPENSES			
Contractual Total (see appendix for further details)	1,560,584	1,662,132	101,548
Travel	66,817	85,000	18,183
Office Supplies & Postage	5,953	12,733	6,780
Capital Assets	37,885	44,400	6,515
Total Operating Expenses	1,671,240	1,804,265	133,025
TOTAL BUDGET	11,865,359	18,328,312	6,462,952

* Includes \$54,443 Allianz reimbursement & unused compensation

Note: Budget is funded as needed and ended year with a cash balance of \$1,929,561 which is credited against FY 2018 authorized budget

FY 2019 Budget Request Summary

	Received FY 2018	FY 2019 Budget Request	% chng
PERSONAL SERVICES			
TOTAL FTEs	34.25	34.25	
BASE COMPENSATION			
Base Compensation - Investment Staff	4,965,754	5,154,064	3.79%
Base Comp - Accounting, Admin & Longevity	428,982	438,930	2.32%
TOTAL STAFF - FULL TIME	5,394,736	5,592,994	3.68%
P/T Staff Attorney & Interns	62,527	62,526	0.00%
Investment Council	6,227	6,227	0.00%
Retirement & resignation flexibility funds	155,100	155,100	0.00%
Benefits	1,049,665	1,077,274	2.63%
Total Base Compensation	6,668,255	6,894,121	3.39%
Investment Performance Incentives			
Maximum Potential Investment Perf Incentive	9,461,327	9,931,508	4.97%
Benefits	1,305,663	1,370,548	4.97%
Total Investment Performance Incentives	10,766,990	11,302,056	4.97%
Total Personal Services	17,435,245	18,196,177	4.36%
OPERATING EXPENSES			
Contractual Total (see next page for further details)	1,726,123	1,860,368	7.78%
Travel	85,000	85,000	0.00%
Office Supplies & Postage	12,733	9,000	-29.32%
Capital Assets	40,520	40,520	0.00%
Total Operating Expenses	1,864,376	1,994,888	7.00%
TOTAL BUDGET	19,299,621	20,191,065	4.62%
UNIT COST SUMMARY *			
Internal Expenses as % of Total Adjusted Assets	0.094%	0.095% **	
Total Expenses as % of Total Adjusted Assets	0.342%	0.343%	

* Based on total assets adjusted to long-term value and expenses using assumed average investment performance incentives

** Unit cost includes an assumed 2.25% salary policy

FY 2019 Budget Request

Contractual services detail

	Received <u>FY 2018</u>	Request <u>FY 2019</u>	<u>% chng</u>
CONTRACTUAL SERVICES			
Investment Services			
Consulting Services	30,000	80,000	166.67%
Investment Accounting, Performance Benchmarking	106,000	113,100	6.70%
Investment Databases, Newsfeeds & Quote Fees	547,436	553,636	1.13%
Investment Research Services	338,185	387,525	14.59%
Flexibility - From Brokerage to Independent Research	100,000	100,000	0.00%
Total Investment Services (see next page for further details)	1,121,621	1,234,261	10.04%
Administrative Expenses			
Office Rent	125,069	134,609	7.63%
Bond/Liability Insurance	7,800	8,190	5.00%
Telephone	18,000	18,000	0.00%
Office Equip Rental/Maintenance	6,000	6,000	0.00%
Bureau of Info & Telecommunications (BIT)	65,300	69,000	5.67%
State Central Services	12,799	12,799	0.00%
Legislative Audit	51,500	51,500	0.00%
Attorney General's Office - Legal Services	18,509	18,509	0.00%
Custodial Fees - Global	263,025	271,000	3.03%
Seminars/Educational Programs	33,500	33,500	0.00%
Business Publications	3,000	3,000	0.00%
Total Administrative Expenses	604,502	626,107	3.57%
TOTAL CONTRACTUAL SERVICES	1,726,123	1,860,368	7.78%

Trust Funds (unaudited)

Health Care Trust (established April 2001)

Principal as of 6/30/17	\$ 85,631,024	<u>Asset Allocation</u>	<u>Current</u>	<u>FY 17</u> <u>Benchmark</u>
Principal as of 6/30/17 adjusted for inflation	\$ 115,247,435	Global Equity	32%	51%
Fair Value (FV) as of 6/30/17	\$ 143,034,115	Private Equity	4%	0%
		Real Estate	7%	10%
Difference - FV less principal	\$ 57,403,091	Fixed Income-IG	20%	30%
Difference - FV less infl. adj. prin.	\$ 27,786,680	Fixed Income-HY	5%	7%
		HY RE Debt	6%	0%
Fiscal year to date return	11.58%	Money Market	<u>26%</u>	<u>2%</u>
Longterm expected mean return	5.86%	Total	100%	100%
Payout of 4% plus expected inflation of 3%	7.00%			
Expected return cushion/shortfall	-1.14%			
Distribution for FY 18 (July 1, 2017)	5,214,739			
Distribution for FY 17 (July 1, 2016)	4,970,123			

Law allows up to 4% of the 16 quarter average to be distributed as long as principal is not violated as of December 31 each year.

Education Enhancement Trust (established April 2001)

Principal as of 6/30/17	\$ 366,546,780	<u>Asset Allocation</u>	<u>Current</u>	<u>FY 17</u> <u>Benchmark</u>
Principal as of 6/30/17 adjusted for inflation	\$ 482,001,898	Global Equity	34%	51%
Fair Value (FV) as of 6/30/17	\$ 554,492,395	Private Equity	3%	0%
		Real Estate	7%	10%
Difference - FV less principal	\$ 187,945,615	Fixed Income-IG	9%	20%
Difference - FV less infl. adj. prin.	\$ 72,490,497	Fixed Income-tax e:	8%	10%
		Fixed Income-HY	4%	7%
Fiscal year to date return	11.52%	HY RE Debt	6%	0%
Longterm expected return (lower due to tax-exempts)	5.81%	Money Market	<u>28%</u>	<u>2%</u>
Payout of 4% plus expected inflation of 3%	7.00%	Total	100%	100%
Expected return cushion/shortfall	-1.19%			
Distribution for FY 18 (July 1, 2017)	19,377,842			
Distribution for FY 17 (July 1, 2016)	18,242,854			

Law allows up to 4% of the 16 quarter average to be distributed as long as principal is not violated as of December 31 each year.

Trust Funds (unaudited)

Dakota Cement Trust (established April 2001)

Principal as of 6/30/17	\$ 238,000,000	<u>Asset Allocation</u>	<u>Current</u>	<u>FY 17</u> <u>Benchmark</u>
Principal as of 6/30/17 adjusted for inflation	\$ 328,178,846	Global Equity	34%	51%
Fair Value (FV) as of 6/30/17	\$ 316,483,727	Private Equity	4%	0%
		Real Estate	7%	10%
Difference - FV less principal	\$ 78,483,727	Fixed Income-IG	20%	30%
Difference - FV less infl. adj. principal	\$ (11,695,119)	Fixed Income-HY	5%	7%
		HY RE Debt	7%	0%
Fiscal year to date return	11.55%	Money Market	<u>24%</u>	<u>2%</u>
Longterm expected mean return	5.86%	Total	100%	100%
Payout of 4% plus expected inflation of 3%	7.00%			
Expected return cushion/shortfall	-1.14%			
Distribution for FY 17 (May 2017 to GF)	11,981,721	Constitution allows 4% of the lesser of 1) the 16		
Distribution for FY 16 (May 2016 to GF)	11,436,003	quarter average balance or 2) the current		
		December 31 fair value, be distributed by June of		
		the following year.		

School & Public Lands

Inflation protection mandated by Constitutional Amendment -
(payout is reduced by inflation to extent inflation not offset by realized net gains)

Fair Value as of 6/30/17	\$ 286,383,911	<u>Asset Allocation</u>	<u>Current</u>	<u>FY 17</u> <u>Benchmark</u>
		Global Equity	35%	51%
Fiscal year to date return	11.68%	Private Equity	3%	0%
Longterm expected mean return	5.86%	Real Estate	7%	10%
		Fixed Income-IG	18%	30%
Distribution for FY 17 K-12 (2/7/17)	10,196,471	Fixed Income-HY	5%	7%
Distribution for FY 17 Board of Regents (6/8/17)	<u>2,409,329</u>	HY RE Debt	6%	0%
TOTAL	12,605,800	Money Market	<u>26%</u>	<u>2%</u>
		Total	100%	100%

Appendix

- Investment performance incentives
- Target discount rationale
- FY17 Budget and Actual - Contractual Services details

Investment performance incentives

Aligns compensation with goal of adding value

- Encourage superior performance
 - Counters underperformance career risk that can discourage efforts to add value
 - Multiyear timeframes encourage investing for the long term
- Encourage retention of successful staff
 - Team is most attractive to other organizations when winning
 - Shifts compensation higher when people more sought and down when losing
- Incentives paid only for added value
- Important to encourage adding value in good and bad markets
 - Added value in down markets more important than in up markets
 - Encourages adding value by reducing risk when markets expensive

Target discount rationale

- Need top caliber people long term
 - Unsuccessful people or job hoppers always available but no bargain, even if free
 - Compensation is too low to recruit veteran high-performers from elsewhere
 - Must develop team internally by training cream of crop local University graduates
 - Takes 15 to 20 years to fully develop seasoned talent
 - If lose talent pipeline or trainers, will jeopardized handoff to next generation
- Our past history and observation of others suggest 70% target
 - Only way to know for sure how large discounts can work is to risk damaging team
 - 50% discount levels in past led to difficulties
 - 30% discount believed significant relative to other high-end professionals
 - Industry subject to intense performance measurement with significant consequences for winning and losing which intensifies desire for financial security
 - Discounts for top SDIC performers may be much larger as industry pay for top quartile performers can be double the median

FY17 Budget and Actual

Contractual services detail

	Actual <u>FY 2017</u>	Received <u>FY 2017</u>	<u>Unexpended</u>
CONTRACTUAL SERVICES			
Investment Services			
Consulting Services	0	30,000	30,000
Investment Accounting, Performance Benchmarking	98,275	106,000	7,725
Investment Databases, Newsfeeds & Quote Fees	510,313	517,336	7,023
Investment Research Services	279,124	293,185	14,061
Flexibility - From Brokerage to Independent Research	115,000	120,000	5,000
Total Investment Services (see next page for further details)	1,002,713	1,066,521	63,808
Administrative Expenses			
Office Rent	125,069	125,069	(0)
Bond/Liability Insurance	2,700	7,800	5,100
Telephone	15,769	14,000	(1,769)
Office Equip Rental/Maintenance	4,847	6,056	1,209
Bureau of Info & Telecommunications (BIT)	57,916	61,454	3,538
State Central Services	11,579	11,698	119
Legislative Audit	45,490	51,500	6,010
Attorney General's Office - Legal Services	0	18,509	18,509
Custodial Fees - Global	260,381	263,025	2,644
Seminars/Educational Programs	32,954	33,500	546
Business Publications	1,167	3,000	1,833
Total Administrative Expenses	557,872	595,611	37,739
TOTAL CONTRACTUAL SERVICES	1,560,584	1,662,132	101,548