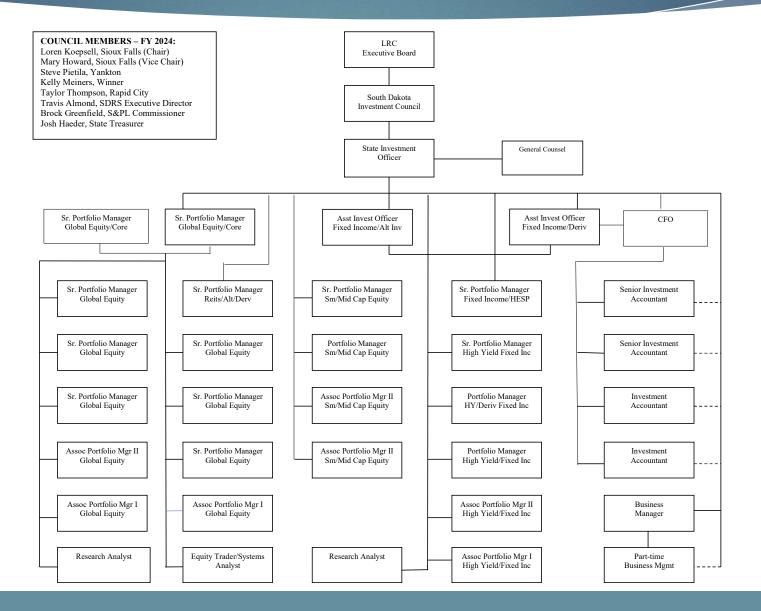


Preliminary Estimated Investment Performance FY 2023 and Budget Request FY 2025

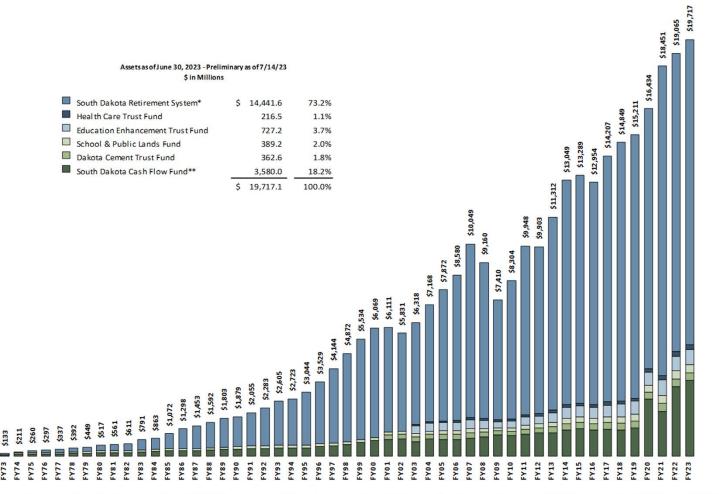
> PRESENTED TO LRC EXECUTIVE BOARD AUGUST 7, 2023

Organization Chart





ASSets (Preliminary estimates)



*The South Dakota Cement Plant Retirement Fund (CPRF) was consolidated into the South Dakota Retirement System (SDRS) on April 1, 2014, per SDCL 3-12C-1642. For purposes of this exhibit, CPRF Assets for Fiscal Years 1973 - 2013 are included with SDRS.

**South Dakota Cash Flow Fund assets include Covid Relief Funds for Fiscal Years 2020, 2021, 2022 and 2023.



Investment Performance

Returns vs. Benchmarks (Preliminary estimates)

		<u>FY 2023</u>	5 years Annualized <u>FY 19 - 23</u>	10 years Annualized <u>FY 14 – 23</u>	20 years Annualized <u>FY 04 – 23</u>
•	SDRS Total Fund (est)*	5.51%	6.38%	7.59%	8.38%
•	Capital Market Benchmark Added Value	10.65% -5.14%	6.38% 0.00%	7.19% 0.40%	7.24% 1.14%
٠	State Universe **	N/A	N/A	N/A	N/A

- Beginning FY 2023 SDRS Assets \$14.113 billion
- Ending FY 2023 SDRS Assets (est) \$14.442 billion

Note: *Time-weighted rates of return are net of fees FY 14-23 and gross of fees FY 04-13 ** Not Available



Investment Performance

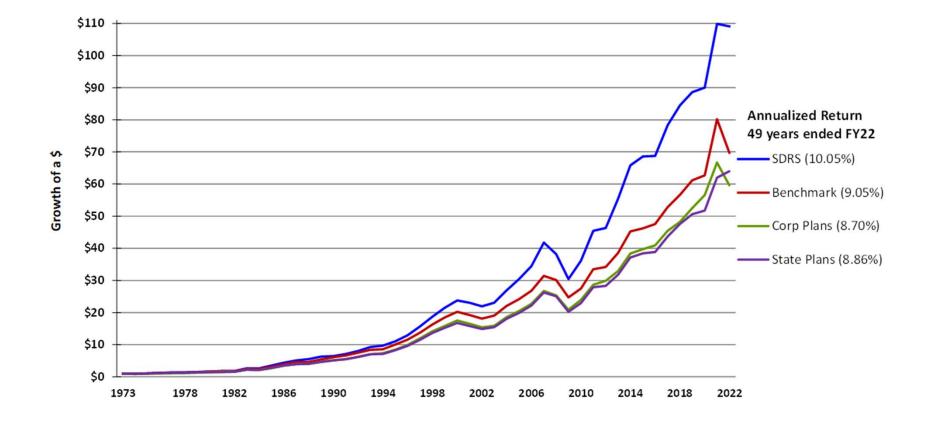
Returns vs. Benchmarks (Preliminary estimates)

 Total SDRS dollars earned Fisca 	\$ 824.	9 million		
• Total SDRS dollars earned last 5 yea	\$ 4.38	2 billion		
Total SDRS dollars earned last 1	\$ 9.04	5 billion		
Total SDRS dollars earned last 2	\$14.98	3 billion		
 Extra earnings resulting from p (including compounding) 				
	<u>1 year</u>	<u>5 years</u>	<u>10 years</u>	20 years
 vs Capital Markets Benchmark 	\$ -725 million	\$ -3 million	\$695 million	\$4.5 billion



Superior returns add up over time

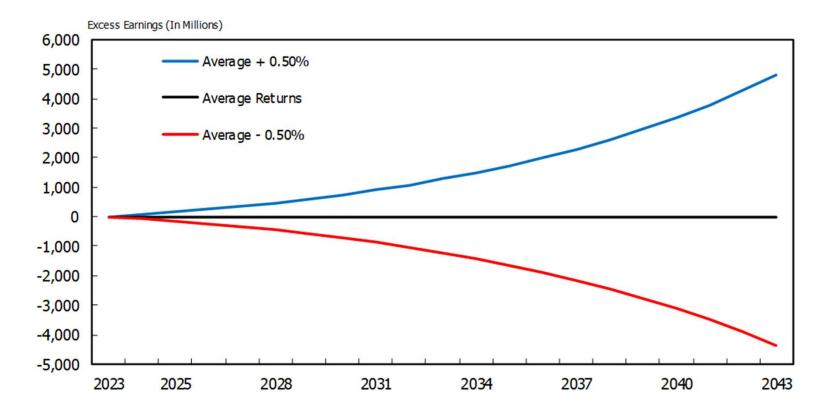
Cumulative returns for SDRS, Benchmark, Corporate Plans, and other States Through FY22, will be updated when Corp & State Plans data available





Potential Excess Earnings

Preliminary Estimate FY23



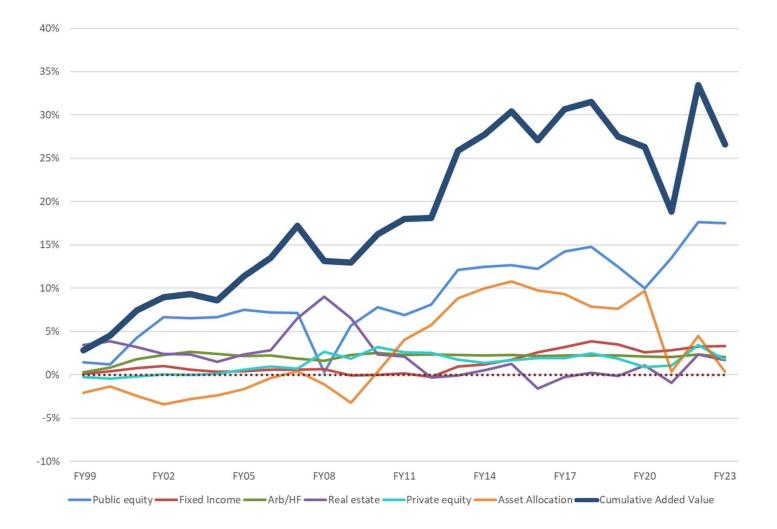
• SDRS preliminary 50-year outperformance = 0.9% annualized vs. benchmark

Outperformance of .5% next 20 years = extra \$4.8 billion

• Underperformance of .5% = cost to retirement system of \$4.4 billion.



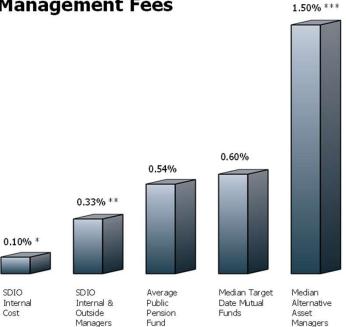
Many pistons contribute Cumulative Added Value by Source (est for FY23)





Cost Efficiency

Management Fees



Difference between SDIC cost of .33% and average public pension fund cost of .54% is \$41.4 million per year, estimated based on Fair Value estimates as of 7/14/23

- * SDIC projected expenses for FY 2025 using adjusted assets and expected average performance incentives.
- ** Includes estimated external management fees based on average expected investment amounts. Does not include typical 20% profit participation after preferred return for investment partnerships.
- *** Does not include typical 20% profit participation after preferred return for investment partnerships.



Compensation Overview

- Long term results have significantly exceeded benchmarks
- Cost efficient due to internal management capabilities
 - Securing team to preserve internal capabilities is best chance to remain cost efficient
 - Internal cost .1% with expected average incentives
- 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

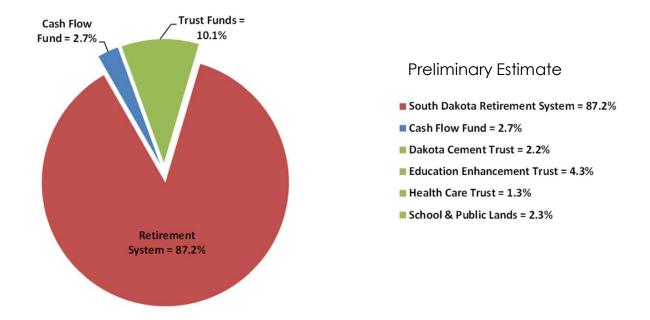


Compensation Overview, cont'd

- Compensation target
 - 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
 - Compensation study updated approximately every three years
- Compensation study 2013
 - Study showed compensation had fallen to 55%
 - 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%) -- This reached 95% of 70% target
 - Incentives aligned with the goal of adding value and only paid if add value
- Compensation study 2016 and 2019
 - Indicated moderate slippage, but not sufficient to request adjustment
- Compensation study 2022
 - Indicated further slippage to 10% threshold just sufficient to request adjustment
 - Council recommends increase in incentive maximum to 225% focusing on 10 yr. performance including stretch component. This reduces to half of shortfall.



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

INVESTMENT COUNCIL BUDGET	FY 2025	FY 2030	<u>FY 2035</u>
Personal Services			
Number of Employees	35	35	35
Base Compensation - Total Staff	7,897,689	9,648,802	12,051,078
Student Interns	41,948	47,461	53,697
Investment Council	8,125	9,193	10,401
Flexibility funds-Retirements & Resignations	208,370	235,752	266,732
Investment Incentive Maximum	15,063,131	18,936,613	23,591,205
Benefits	3,101,122	3,928,492	4,959,574
Total Personal Services	26,320,386	32,806,312	40,932,686
Operating Expenses			
Contractual Services	2,901,347	3,204,328	3,527,549
Travel	86,431	97,789	110,639
Office Supplies & Postage	5,000	5,657	6,400
Capital Assets	40,520	56,045	63,902
Total Operating Expenses	3,033,298	3,363,819	3,708,491
Total Investment Council Budget ⁽¹⁾	29,353,684	36,170,131	44,641,177
ASSET SUMMARY ⁽²⁾			
Internal Assets	16,229,871,182	19,934,655,213	24,500,288,675
External Assets	5,125,222,479	6,295,154,278	7,736,933,266
Total Assets	21,355,093,661	26,229,809,490	32,237,221,941
EXPENSE SUMMARY			
Internal Expenses	29,353,684	36,170,131	44,641,177
External Manager Fees	56,377,447	69,246,697	85,106,266
Total Expenses	85,731,132	105,416,828	129,747,443
UNIT COST SUMMARY ⁽³⁾			
Internal Expenses as % of Total Assets	0.10%	0.10%	0.10%
Total Expenses as % of Total Assets	0.33%	0.33%	0.33%

⁽¹⁾ FY 2025 amounts differ from the actual final budget request. To reflect all costs, the LTP includes an assumed salary policy of 2.5% and an additional 1.75% increase for investment positions. The salary policy is not included in the budget request as any salary policy is added afterward.

⁽²⁾ Projections based on long-term assumed returns applied to 6/30/23 assets. Updated each June 30.

⁽³⁾ Unit Cost Summary uses assumed average investment performance incentives



FY 2023 Budget and Actual

	Expended	Received	Unexpended
PERSONAL SERVICES	<u>FY 2023</u>	FY 2023	FY 2023
Total FTEs	32.10	35.00	
Base Compensation			
Base Compensation - Investment Staff	5,416,657	6,494,589	1,077,932 *
Base Comp - Admin, Acct, Legal, Longevity	605,950	739,095	133,145
TOTAL STAFF - FULL TIME	6,022,607	7,233,684	1,211,077
Part-Time - Legal & Interns	70,673	89,429	18,756
Investment Council	2,175	7,197	5,022
Retirement & resignation flexibility funds	0	189,989	189,989
Benefits	1,041,188	1,367,668	326,480
Total Base Compensation	7,136,643	8,887,966	1,751,324
Investment Performance Incentives			
Maximum Potential Investment Perf Incentive	6,808,774	11,848,483	5,039,709
Benefits	357,963	1,435,090	1,077,127
Total Investment Performance Incentives	7,166,737	13,283,573	6,116,836
TOTAL PERSONAL SERVICES	14,303,380	22,171,539	7,868,160
OPERATING EXPENSES			
Contractual Total (see appendix for further details)	2,017,825	2,454,980	437,155
Travel	31,753	86,431	54,678
Office Supplies	2,969	7,000	4,031
Capital Assets	56,299	40,520	(15,779)
Total Operating Expenses	2,108,847	2,588,931	480,084
TOTAL BUDGET	16,412,227	24,760,471	8,348,244

*Includes \$64,737 Virtus reimbursement & unused compensation

Note: Budget is funded as needed and ended year with a cash balance

of \$2,371,791.76 which is credited against FY 2024 authorized budget



FY 2025 Budget Request

Received Request PERSONAL SERVICES FY 2024 FY 2025 % change **Total FTEs** 35.00 35.00 **Base Compensation Base Compensation - Investment Staff** 6,897,834 3.03% 6,694,725 816,044 2.68% Base Comp - Admin, Acct, Legal, Longevity 794,708 TOTAL STAFF - FULL TIME 7,489,433 7,713,878 3.00% Part-Time - Legal & Interns 40,949 -57.79% 97,005 0.00% Investment Council 7,927 7,927 203,288 203,288 0.00% Retirement & resignation flexibility funds 1,462,228 1,496,554 2.35% **Benefits** 9,259,883 9,462,596 2.19% **Total Base Compensation Investment Performance Incentives** Maximum Potential Investment Perf Incentive 14.612.825 15.063.132 3.08% Benefits 1,816,569 1,578,712 -13.09% **Total Investment Performance Incentives** 16,429,394 16,641,844 1.29% 25,689,277 26,104,441 1.62% TOTAL PERSONAL SERVICES **OPERATING EXPENSES** 2,649,284 2,901,347 9.51% Contractual Total (see next page for further details) Travel 86,431 86,431 0.00% -28.57% Office Supplies 7,000 5,000 0.00% **Capital Assets** 40,520 40,520 2,783,235 3,033,298 8.98% **Total Operating Expenses** TOTAL BUDGET 28,472,513 29,137,739 2.34%

UNIT COST SUMMARY *

Internal Expenses as % of Total Adjusted Assets	0.100%	0.100%
Total Expenses as % of Total Adjusted Assets	0.335%	0.335%

* Unit cost based on total assets adjusted to long-term value, expenses using assumed average investment performance incentives, long-term average of retirement & resignation flexibility funds, and an assumed 2.5% salary policy for FY25.



FY 2025 Budget Request Contractual services detail

	Received FY 2024	Request FY 2025	% chng
CONTRACTUAL SERVICES	112024	112020	<u> /// Cillig</u>
Investment Services			
Consulting Services	180,000	180,000	0.00%
Investment Accounting, Performance Benchmarking	251,377	427,905	70.22%
Investment Databases, Newsfeeds & Quote Fees	802,063	827,100	3.12%
Investment Research Services	450,910	496,179	10.04%
Flexibility - From Brokerage to Independent Research	225,000	225,000	0.00%
Total Investment Services	1,909,350	2,156,185	12.93%
Administrative Expenses Office Rent Bond/Liability Insurance	168,605 8,385	168,605 8,385	0.00% 0.00%
Telephone	18,000	18,000	0.00%
Office Equip Rental/Maintenance/Misc Bureau of Info & Telecommunications (BIT)	7,800 111,621	7,800 111,621	0.00%
State Central Services	14,828	14,828	0.00%
Legislative Audit	65,351	70,579	8.00%
Janitorial	3,682	3,682	0.00%
Custodial Fees - Global	305,162	305,162	0.00%
Seminars/Educational Programs	35,000	35,000	0.00%
Business Publications	1,500	1,500	0.00%
Total Administrative Expenses	739,934	745,162	0.71%
TOTAL CONTRACTUAL SERVICES	2,649,284	2,901,347	9.51%



Trust Funds (Preliminary estimates)

Health Care Trust (established April 2001)

Distribution for FY 24 (July 3, 2023)

Distribution for FY 23 (July 1, 2022)

Distribution for FY 22 (July 1, 2021)

					FY 23
Principal as of 6/30/23	\$ 135,631,024		Asset Allocation	Current	Benchmark
Principal as of 6/30/23 adjusted for inflation	\$ 201,008,796		Global & Private Equity	32%	50%
Fair Value (FV) as of 6/30/23	\$ 216,525,141	Estimate	Real Estate	12%	11%
			Fixed Income-IG	14%	30%
Difference - FV less principal	\$ 80,894,117		Fixed Income-HY	4%	7%
Difference - FV less infl. adj. prin.	\$ 15,516,345		HY RE Debt	0%	0%
			Money Market	38%	2%
Fiscal year to date return	5.63%	Estimate	Total	100%	100%
Longterm expected mean return	5.98%				
Payout of 4% plus expected inflation of 2.25%	6.25%				
Expected return cushion/shortfall	-0.27%				
Distribution for FY 24 (July 3, 2023)	7,276,454		Law allows up to 4% of the	e 16 quarte	r average to
Distribution for FY 23 (July 1, 2022)	6,612,325		be distributed as long as p	rincipal is I	not violated
Distribution for FY 22 (July 2, 2021)	5,839,236		as of December 31 each y	ear.	
Education Enhancement Trust (established April 2001)					
					FY 23
Principal as of 6/30/23	\$ 443,645,783		Asset Allocation	Current	Benchmark
Principal as of 6/30/23 adjusted for inflation	\$ 689,050,563		Global & Private Equity	32%	50%
Fair Value (FV) as of 6/30/23	\$ 727,153,577	Estimate	Real Estate	12%	11%
			Fixed Income-IG	13%	24%
Difference - FV less principal	\$ 283,507,794		Fixed Income-Tax Ex	0%	6%
Difference - FV less infl. adj. prin.	\$ 38,103,013		Fixed Income-HY	4%	7%
			HY RE Debt	0%	0%
Fiscal year to date return	5.70%	Estimate	Money Market	39%	2%
Longterm expected return (lower due to tax-exempts)	5.95%		Total	100%	100%
Payout of 4% plus expected inflation of 2.25%	6.25%				
Expected return cushion/shortfall	-0.30%				

26,389,450

25,277,997

23,673,657

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.

EV 23



Trust Funds (Preliminary estimates)

Dakota Cement Trust (established April 2001)

Principal as of 6/30/23	\$ 238,000,000		Asset Allocation	Current	Benchmark
Principal as of 6/30/23 adjusted for inflation	\$ 409,016,731		Global & Private Equity	31%	50%
Fair Value (FV) as of 6/30/23	\$ 362,589,397	Estimate	Real Estate	12%	11%
			Fixed Income-IG	15%	30%
Difference - FV less principal	\$ 124,589,397		Fixed Income-HY	4%	7%
Difference - FV less infl. adj. principal	\$ (46,427,333)		HY RE Debt	0%	0%
			Money Market	38%	2%
Fiscal year to date return	5.14%	Estimate	Total	100%	100%
Longterm expected mean return	5.98%				
Payout of 4% plus expected inflation of 2.25%	6.25%				
Expected return cushion/shortfall	-0.27%				
			Constitution allows 4% of	the lesser	of 1) the 16
Distribution for FY 23 (May 15, 2023)	14,369,135		quarter average balance or	2) the cur	rent
Distribution for FY 22 (May 16, 2022)	13,982,377		December 31 fair value, be	distribute	d by June of
Distribution for FY 21 (May 14, 2021)	13,404,156		the following year.		

School & Public Lands

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

			Asset Allocation	Current	Benchmark	
Fair Value as of 6/30/23	\$ 389,204,261	Estimate	Global & Private Equity	33%	50%	
			Real Estate	11%	11%	
Fiscal year to date return	5.76%	Estimate	Fixed Income-IG	13%	30%	
Longterm expected mean return	5.98%		Fixed Income-HY	4%	7%	
			HY RE Debt	0%	0%	
Distribution for FY 23 K-12 (2/8/23)	9,984,927		Money Market	39%	2%	
Distribution for FY 23 Board of Regents (6/15/23)	3,012,281		Total	100%	100%	



FY 23

FY 23

Investment Performance Incentive – FY 2023 (Preliminary estimate) State Investment Officer

Return-linked compensation maximum is 200% on FY 2023 base compensation of \$556,268 payable in FY 2024. Performance Period is the one year, four year, and ten year annualized fiscal years.

60% OF PLAN BASED ON TOTAL FUND RESULTS:

Range of \$280,000-\$340,000

Performance measurement based on Total Fund results relative to the Capital Markets Benchmark for 1 year, 4 years, 10 years, 4 years stretch, and 10 years stretch.

40% OF PLAN BASED ON AGGREGATE PORTFOLIO MANAGERS' RESULTS:

Range of \$220,000-\$230,000

Performance measurement based on the aggregate return-linked compensation of the assistant investment officers and investment staff divided by the aggregate potential return-linked compensation for the performance period, based on 1 year, 4 years, 10 years, 4 years stretch and 10 years stretch.

TOTAL EARNED RETURN-LINKED COMPENSATION:

Range of \$500,000-\$570,000 Percentage of Salary: 90%-102%* *before reduction for support staff incentive



Appendix

- Investment performance incentives
- Target discount rationale
- FY23 Budget and Actual Contractual Services details



Investment Performance Incentives Align 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



FY23 Budget and Actual Contractual services detail

	Expended <u>FY 2023</u>	Received FY 2023	Unexpended <u>FY 2023</u>
CONTRACTUAL SERVICES			
Investment Services			
Consulting Services	4,500	180,000	175,500
Investment Accounting, Performance Benchmarking	202,329	175,451	(26,878)
Investment Databases, Newsfeeds & Quote Fees	705,363	762,722	57,359
Investment Research Services	435,831	419,200	(16,631)
Flexibility - From Brokerage to Independent Research	0	225,000	225,000
Total Investment Services	1,348,024	1,762,373	414,349
Administrative Expenses			
Office Rent	143,950	153,000	9,050
Bond/Liability Insurance	9,510	8,385	(1,125)
Telephone	15,710	18,000	2,290
Office Equip Rental/Maintenance/Misc	3,745	10,031	6,286
Bureau of Info & Telecommunications (BIT)	99,548	97,218	(2,330)
State Central Services	13,260	14,038	778
Legislative Audit	62,739	60,510	(2,229)
Janitorial	0	0	-
Custodial Fees - Global	292,140	293,425	1,285
Seminars/Educational Programs	28,496	35,000	6,504
Business Publications	703	3,000	2,297
Total Administrative Expenses	669,801	692,607	22,806
TOTAL CONTRACTUAL SERVICES	2,017,825	2,454,980	437,155

