



2023

ANNUAL COMPREHENSIVE FINANCIAL REPORT
FISCAL YEAR ENDED JUNE 30, 2023

South Dakota Retirement System
A Component Unit of the State of South Dakota

FISCAL YEAR 2023 HIGHLIGHTS

Total membership	100,828
Active contributing members	42,504
Inactive non-contributing members	25,043
Benefit recipients	33,281
Actuarial value of assets	\$ 14,500,453,104
Actuarial accrued liability (AAL)	\$ 14,490,723,479
Total pension liability	\$14,490,692,654
Net position restricted for pension benefits	\$14,500,453,104
Net pension liability/(asset)	\$ (9,760,450)
Time-weighted investment return—Gross of fees	6.31%
Time-weighted investment return—Net of fees	5.84%
<u>Benefits and refunds paid</u>	
Benefits paid	\$ 707,072,236
Refunds paid	<u>28,008,011</u>
Total	\$ 735,080,247
<u>Contributions</u>	
Member	\$ 153,798,895
Employer	<u>154,761,704</u>
Total	\$ 308,560,599
Funding period	N/A
Actuarial value funded ratio (actuarial value of assets/AAL)	100.1%
Fair value funded ratio (fair value of assets/AAL)	100.1%



ANNUAL COMPREHENSIVE FINANCIAL REPORT
FOR THE FISCAL YEAR ENDED JUNE 30, 2023

South Dakota Retirement System
A Component Unit of the State of South Dakota

Prepared by the SDRS Finance and Audit Departments

South Dakota Retirement System
222 East Capitol Avenue, PO Box 1098
Pierre, South Dakota 57501-1098

SDRS MISSION STATEMENT

To responsibly manage a financially sustainable system within fixed resources and prepare our members for retirement.

SDRS VISION

To be a model retirement system that is fully funded, delivers benefits that meet our long-term benefit goals, and provides members the foundation to achieve financial security during retirement.

SDRS LONG-TERM BENEFIT GOALS

Retirement Income from SDRS

Lifetime income from SDRS of at least 50 percent of Final Average Compensation (FAC) at normal retirement for career members with credited service of at least 30 years for Class A members, 25 years for Class B Public Safety members, and 20 years for Class B Judicial members.

Proportionate lifetime income from SDRS for members who participate in SDRS for less than a career.

Additional Member Savings

SDRS will educate members of the need for additional savings and will encourage members to accumulate personal savings of at least 100 percent of annual pay at retirement to provide retirement benefits in addition to those provided by SDRS and Social Security.

Total Retirement Income

Educate, advise, and encourage members to plan for retirement by establishing a total retirement income goal based on their unique circumstances and considering benefits available from SDRS, Social Security, and personal savings.

CONTENTS

CERTIFICATE OF ACHIEVEMENT	6
PUBLIC PENSION STANDARDS AWARD	7
INTRODUCTION	8
Letter of Transmittal	9
Board of Trustees	16
Organizational Chart	17
FINANCIAL SUMMARY	18
Auditor's Opinion	19
Management's Discussion and Analysis	23
Basic Financial Statements	27
Statement of Fiduciary Net Position	27
Statement of Changes in Fiduciary Net Position	28
Notes to Financial Statements	29
Required Supplementary Information	38
Schedule of Changes in the System's Net Pension Liability (Asset)	38
Schedule of System's Net Pension Liability (Asset)	38
Schedule of System's Contributions	38
Schedule of Investment Returns	38
Notes to Trend Data	40
Other Supplementary Information	41
Schedules of Administrative Expenses, Investment Activity Expenses, and Payments to Consultants	41
GASB Letter	42
ACTUARIAL SUMMARY	44
Actuary's Opinion	45
External Actuarial Review Letter of Transmittal	48
Actuarial Overview	50
Actuarial Valuation	63
Solvency Test	66
Schedule of Active Member Valuation Data	67
Schedule of Retirees and Beneficiaries Added to and Removed from Benefit Payroll	68
Comparison of Actuarial Valuation Results	69
Plan Summary	70
INVESTMENT SUMMARY	81
State Investment Officer's Letter	82
Investment Analysis	83
The Investment Council	83
Investment Objectives and Policy	83
Prudent Person Standard	83
Investment Performance	84
Schedule of Investment Management Fees and Expenses	85
Summary of Investment Portfolios	85
Asset Allocation	86
SDRS Rates of Return	87
Asset Class Returns and Benchmarks and Total Fund Benchmark	88
Private Equity and Real Estate Limited Partnership Investments	89
STATISTICAL SUMMARY	90
Membership Profile	91
Public Entities Participating in SDRS	91
SDRS Benefits Paid	93
Membership by Age	94
Membership by County of Residence	94
Membership by Group	95
Benefit Recipients by Group	96
Average Benefits Payments	97
Historical Views	98

CERTIFICATE OF ACHIEVEMENT



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

South Dakota Retirement System

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2022

Christopher P. Morill

Executive Director/CEO

PUBLIC PENSION STANDARDS AWARD



Public Pension Coordinating Council

***Public Pension Standards Award
For Funding and Administration
2023***

Presented to

South Dakota Retirement System

In recognition of meeting professional standards for
plan funding and administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

A handwritten signature in cursive script that reads "Alan H. Winkle".

Alan H. Winkle
Program Administrator



INTRODUCTION

**Letter of Transmittal
Board of Trustees
Organizational Chart**

LETTER OF TRANSMITTAL



222 East Capitol Avenue, Suite 8 • PO Box 1098 • Pierre, SD 57501
Toll-Free (888) 605-SDRS • Phone (605) 773-3731
Fax (605) 773-3949 • www.sd.gov/sdrs

December 20, 2023

Board of Trustees
South Dakota Retirement System
Pierre, SD 57501

To the Members of the SDRS Board of Trustees:

We are pleased to submit the Annual Comprehensive Financial Report of the South Dakota Retirement System (SDRS) for the fiscal year ended June 30, 2023. Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with SDRS. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of SDRS' operations.

Plan Basics

SDRS was established July 1, 1974, as a multiple employer public employee retirement system. The system provides retirement, disability, and survivor benefits to over 100,800 members. SDRS is managed within the resources provided by fixed, statutory member and employer contribution rates. This contribution budget has led to the disciplined management of the plan structure that includes variable benefits and minimum statutory funding thresholds requiring corrective action recommendations if not met. This discipline, together with outstanding historical investment performance, has consistently resulted in SDRS being fully funded—a rare achievement among retirement systems. The system's history of changes in basic plan provisions is shown on pages 13-16.

Investments

The SDRS trust fund is managed by the South Dakota Investment Council. The most important overall objective of the Investment Council is to prudently manage the SDRS assets and to add value over the long term compared to market indexes. Disciplined adherence to the long-term value approach is essential. Contingency planning also improves the likelihood of adhering to the plan. Risk is managed by diversifying across multiple asset categories and reducing exposure to expensive assets. The Council believes market return expectations should be based on forward-looking, long-term cash flows, rather than extrapolation of past returns, which tend to relate inversely to future results.

The money-weighted investment return for the SDRS trust fund net of investment expenses was 5.80 percent for fiscal year 2023 while the time-weighted investment return net of investment expenses was 5.84 percent. The Investment Council's benchmark return was 10.7 percent for the same period. The annualized money-weighted investment return for the 10 years ended June 30, 2023, was 7.6 percent. Additional information can be found starting on page 83.

Funding and Actuarial Measures

The most important measures of a retirement system's sustainability are the funded ratio and the adequacy of contributions to pay for the system's future benefits. The funded ratio is the ratio of system assets at fair value to the system's actuarial accrued liability. Contribution adequacy is judged by comparing actual contributions to the contributions required to fund the ongoing benefit cost of the system plus an amortization of any unfunded actuarial accrued liability, the excess of the system's actuarial accrued liability over the actuarial value of assets.

The June 30, 2023 actuarial valuation confirms SDRS' fair value funded ratio is 100 percent, SDRS has no unfunded actuarial accrued liability, and the fixed, statutory contribution rates are adequate to fund the ongoing benefit costs. As of June 30, 2023, SDRS meets the Board of Trustees' funding objectives:

- A fair value funded ratio of at least 100 percent,
- A fully funded system with no unfunded actuarial accrued liabilities, and
- Actuarially determined variable benefits that are adequately funded by the fixed, statutory contributions.

SDRS is managed by the SDRS Board of Trustees within the resources provided by fixed, statutory contributions through benefit features that vary based on investment returns and affordability (primarily the SDRS Cost of Living Allowance (COLA)). This benefit structure, the Board's funding objectives, and supporting initiatives of the Board have resulted in a sustainable and fully funded system.

The June 30, 2023, actuarial valuation also establishes the COLA payable beginning July 1, 2024. When the actuarial measures indicate the full COLA range is affordable, the SDRS COLA is equal to inflation, no less than 0 percent and no greater than 3.5 percent. When the full COLA range is unaffordable, the maximum COLA is restricted to the percentage increase that if paid in all future years, results in a fair value funded ratio of at least 100 percent. The June 30, 2023, actuarial valuation indicates that the full COLA range is unaffordable, and a restricted maximum COLA of 1.91 percent, if paid in all future years, results in a fair value funded ratio of at least 100 percent. The July 2024 SDRS COLA will therefore be inflation between 0 percent and 1.91 percent. Inflation for the year was 3.20 percent, making the July 2024 COLA 1.91 percent.

If future experience matches the actuarial assumptions, the affordable SDRS COLA is expected to remain stable at 1.91 percent and SDRS is expected to remain fully funded.

Major Initiatives

During fiscal year 2022, SDRS began work with the South Dakota Bureau of Information and Technology on a new website. These efforts were made to enhance the member's experience before and after retirement, as well as create better efficiencies for employer reporting. The employee portion of the new website was put into production in fiscal year 2023.

SDRS staff continues to focus its communication efforts with enhanced outreach programs to educate members about the important benefit provided by SDRS, the many challenges retirees face, and ways to extend and enhance financial security throughout retirement. During fiscal year 2023, SDRS received over 2,800 email inquiries as well as taking in over 460 walk-in appointments. SDRS Member Services utilizes the virtual platform as well. In fiscal year 2023, they conducted over 100 individual consultations over Teams, and had over 2,500 attendees participated in Zoom meetings, Authorized Agent trainings, Early and Mid-Career workshops, Women and Financial Planning workshops, and Pre-retirement Planning workshops.

Accounting System and Internal Control

This report has been prepared to conform to the reporting standards of the Governmental Accounting Standards Board and the American Institute of Certified Public Accountants. The accrual basis of accounting is used to record assets, liabilities, revenues, and expenses. Revenues are recognized in the accounting period in which they are earned, without regard to the date of collection, and expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made. Administrative expenditure authority is granted annually by the South Dakota Legislature.

The system's internal accounting controls, which are reviewed by external auditors on an annual basis, are designed to provide reasonable assurance regarding the safekeeping of assets and the reliability of financial records. The concept of reasonable assurance assumes that the cost of internal accounting controls should not exceed the benefits expected to be derived from the implementation.

.....

This letter of transmittal is designed to complement the Management’s Discussion and Analysis (MD&A) and should be read in conjunction with it. The SDRS MD&A can be found immediately following the Auditor’s Opinion.

Professional Services

The Board of Trustees retains independent consultants to perform professional services that are essential to the system’s effective and efficient operation. External actuarial services are provided by Cavanaugh MacDonald Consulting, LLC. The annual financial audit is conducted by the accounting firm of Eide Bailly LLP with the participation of the South Dakota Department of Legislative Audit. SDRS investments are managed by the South Dakota Investment Council.

Certificate of Achievement/Public Pension Standards Award

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the South Dakota Retirement System for its comprehensive annual financial report for the fiscal year ended June 30, 2022. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports.

In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. Such financial report must satisfy both generally accepted accounting principles and applicable legal requirements.

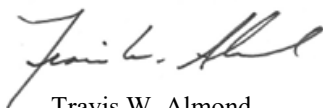
A Certificate of Achievement is valid for a period of one year only. This is the 28th year that SDRS has received a Certificate of Achievement. We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

The Public Pension Coordinating Council awarded the Public Pension Standards Award for Funding and Administration to the South Dakota Retirement System in recognition of meeting the professional standards for plan design and administration. This is the 20th year that SDRS received an award from the Public Pension Coordinating Council.

Acknowledgments and Comments

The preparation of this report reflects the combined efforts of the SDRS staff under the direction of the Board of Trustees with support from South Dakota Investment Council staff. It is intended to provide complete and reliable information to members of SDRS, the Governor, the South Dakota State Legislature, and the citizens of South Dakota.

Respectfully submitted,



Travis W. Almond
Executive Director



Michelle Mikkelsen
Chief Financial Officer

**Foundation Member
History of Changes in Basic Plan Provisions**

Provision	Status in 1974	Benefit Improvements	
Benefit Formula * Class A Standard	1.0%	1982 - 1.1% 1986 - 1.2% 1989 - 1.25% 1991 - 1.30% 1994 - 1.30%/1.40% (for applicable years) 1997 - 1.40% prior to 1997/1.30% thereafter 1998 - 1.475% prior to 1998/1.30% thereafter 1999 - 1.55% prior to 2000/1.30% thereafter 2000 - 1.625% prior to 2002/1.30% thereafter 2002 - 1.625% prior to 2002/1.55% thereafter 2008 - 1.7% prior to 2008/1.55% thereafter	
	2.0%	1999 - 2.25% prior to 2000/2.0% thereafter 2000 - 2.325 % prior to 2002/2.0% thereafter 2002 - 2.325 % prior to 2002/2.25% thereafter 2008 - 2.4% prior to 2008/2.25% thereafter	
	2.0%	1994 - 2.0%/2.10% (for applicable years) 1997 - 2.10% prior to 1997/2.0% thereafter 1998 - 2.175% prior to 1998/2.0% thereafter 1999 - 2.25% prior to 2000/2.0% thereafter 2000 - 2.325% prior to 2002/2.0% thereafter 2008 - 2.4% prior to 2008/2.0% thereafter	
	3.333% / 2.0%	1994 - 3.333%/3.433% (for applicable years) 2.0%/2.10% (for applicable years) 1997 - 3.433% prior to 1997/3.333% thereafter 2.10% prior to 1997/2.0% thereafter 1998 - 3.508% prior to 1998/3.333% thereafter 2.175% prior to 1998/2.0% thereafter 1999 - 3.583% prior to 2000/3.333% thereafter 2.25% prior to 2000/2.0% thereafter 2000 - 3.658% prior to 2002/3.333% thereafter 2.325% prior to 2002/2.0% thereafter 2008 - 3.733% prior to 2008/3.333% thereafter 2.4% prior to 2008/2.0% thereafter	
Class A Retiree Benefit Formula	Variable	Standard 1982 - 1.0% 1987 - 1.05% 1988 - 1.1% 1989 - 1.25% 1991 - 1.30% 1994 - 1.30%/1.40% (for applicable years) 1997 - 1.40% prior to 1997/1.30% thereafter 1998 - 1.475% prior to 1998/1.30% thereafter 1999 - 1.55% prior to 2000/1.30% thereafter 2000 - 1.625% prior to 2002/1.30% thereafter 2002 - 1.625% prior to 2002/1.55% thereafter 2008 - 1.7% prior to 2008/1.55% thereafter	Alternate (less other public benefits) 1982 - 1.0% 1987 - 2.0% 1999 - 2.25% prior to 2000/2.0% thereafter 2000 - 2.325% prior to 2002/2.0% thereafter 2002 - 2.325% prior to 2002/2.25% thereafter 2008 - 2.4% prior to 2008/2.25% thereafter
	2% Simple	Improvement Factor 1978 - 2.0% compound (indexed) 1982 - 3.0% compound (indexed) 1988 - 3.0% compound 1993 - 3.1% compound 1998 - 3.1% compound and prorated for partial years 2010 - 2.1% to 3.1% compound, dependent on funded status of System and CPI 2017 - 0.5% to 3.5% compound, indexed to CPI-W and based on SDRS funded status 2021 - 0% to 3.5% compound, indexed to CPI-W and based on SDRS funded status	

Foundation Member History of Changes in Basic Plan Provisions

Provision	Status in 1974	Benefit Improvements
Early Retirement * Class A * Class B Public Safety * Class B Judicial	Early Retirement: Age 55 with 6% per year reduction Early Retirement: Age 45 with 6% per year reduction Early retirement: Age 55 with 6% per year reduction	1978 - Reduction decreased to 3% per year 1986 - Rule of 85 (age 60) 1989 - Removed "at work" limitation 1991 - Rule of 85 (age 58) 1993 - Rule of 85 (age 55) 1978 - Reduction decreased to 3% per year 1982 - Early retirement age for new members: age 50 1989 - Early retirement: age 45 for all Class B Public Safety members 1991 - Age 50/25 years of service 1998 - Rule of 75 (age 45) 1978 - Reduction decreased to 3% per year 1990 - Rule of 80 (age 55)
Optional Spouse Coverage <small>(no new enrollees after July 1, 2010)</small>	1.0% of compensation	1978 - 0.8% of compensation 2004 - 1.2% of compensation 2010 - 1.5% of compensation
Final Average Compensation Caps	Last quarter cap 125% of any previous quarter; four quarter average cap 115% of any previous quarter	2004 - Last quarter cap = 115% four quarter average cap = 110% 2005 - Last quarter cap = 105% four quarter average cap = 105% 2017 - For members whose credited service ends after June 30, 2020, the 5% cap applied to each four quarter period considered in calculation of final average compensation
Special Pay Plan	Termination pay made directly to member with SS, SDRS, and income taxes deducted	2004 - Termination pay of \$600 or more without SS, SDRS, or income tax deductions for a terminating employee of a participating unit who is 55 or older goes to SPP
Purchasing Uncredited Service * Class A * Class B Public Safety * Class B Judicial	Buy at 10% of compensation Buy at 12% of compensation Buy at 12% of compensation	1989 - Buy at 7.5% of compensation 2002 - Buy at 9% of compensation 2004 - Buy at actuarially determined rate dependent on age at purchase and actuarial assumptions 1978 - Buy at 16% of compensation 1982 - Current members maximum of 20% of compensation; new members 16% of compensation 1989 - Buy at 12% of compensation 2004 - Buy at actuarially determined rate dependent on age at purchase and actuarial assumptions 1978 - Buy at 16% of compensation 1982 - Buy at maximum 20% of compensation 1989 - Buy at 13.5% of compensation 2004 - Buy at actuarially determined rate dependent on age at purchase and actuarial assumptions
Contribution Rate * Class A * Class B Public Safety * Class B Judicial	5% 6% 6%	2002 - 6% 1978 - 8% 1982 - For current member increasing 1/8 of 1% to maximum of 10%; for new members 8% 1989 - 8% for all members 1978 - 8% 1982 - 1/8 of 1% to maximum of 10% 1989 - 9%
Eligibility Requirements * Vested Retirement Benefits * Disability Benefits	- Five years of credited service that includes purchased service - Five years of credited service unless disabled in an accident at work, then no specific amount of credited service is required	1998 - Three years of credited service including purchased service 2004 - Three years of contributory service, does not include purchased service 1998 - Three years of credited service including purchased service 2004 - Three years of contributory service since reentry into SDRS unless disabled in an accident at work, then no specific amount of contributory service is required

Foundation Member History of Changes in Basic Plan Provisions

Benefit Category	Status in 1974	Benefit Improvements
Normal Retirement Age for Class B Public Safety	Age 55	1982 - New members age 60 1989 - Age 55 for all members
Refund of Accumulated Contributions	Member contributions only	1986 - Guaranteed refund of the balance of all employer/member contributions if member dies after retirement 1995 - Portable Retirement Option (PRO) - For PRO members withdrawing prior to retirement, a refund of all or a percentage of employer/member contributions based on years of service 1998 - Portable Retirement Option (PRO) - For all members withdrawing prior to retirement, a refund of all or a percentage of employer/member contributions based on years of service 2010 - For members withdrawing prior to retirement, a refund of all member contributions and a percentage of employer contributions based on years of service and final contribution date
Interest on Accumulated Contributions	5% on member contributions only	1986 - No greater than 90% of the 91-day T-bill rate; 5% minimum, 10% maximum 2004 - No greater than 90% of the 91-day T-bill rate; maximum, the actuarially assumed rate of investment return, currently 6.5%; minimum, none
Retire/return to work * Normal or Special Early Retirement	<ul style="list-style-type: none"> - Benefits, including the COLA, paid during reemployment without adjustment - Rehired member treated as continuing member - Add-on benefit paid at re-retirement considers all periods of employment 	2004 - Benefits paid during reemployment but COLA eliminated (except for Class B Public Safety member who is rehired as Class A member) <ul style="list-style-type: none"> - Rehired member treated as new member - Add-on benefit paid at re-retirement considers reemployment period only - Retired/Rehires prior to July 1, 2004 grandfathered under current law 2010 - 3 continuous months minimum termination period <ul style="list-style-type: none"> - 15% benefit reduction during reemployment - Continued COLA elimination during reemployment - No 2nd SDRS benefit accrual - Member contributions to SRP/Employer contributions to SDRS 2021 - If reemployed for less than 1,250 hours following 3-month minimum termination period or retirement after age 59 1/2, no benefit reduction, COLA suspension, or contribution requirements
* Early Retirement	<ul style="list-style-type: none"> - Benefits, including the COLA suspended during reemployment - Rehired member treated as continuing member - Add-on benefit paid at re-retirement considers all periods of employment 	2004 - Benefits, including the COLA, suspended during reemployment <ul style="list-style-type: none"> - Rehired member treated as new member - Add-on benefit paid at re-retirement considers reemployment period only 2010 - Benefits, including the COLA, suspended during reemployment <ul style="list-style-type: none"> - No 2nd SDRS benefit accrual - Member contributions to SRP/Employer contributions to SDRS 2021 - Provisions applicable to Normal or Special Early Retirement apply
Compensation Basis for Benefit Calculations	<ul style="list-style-type: none"> - Retirement benefit based on final average compensation (three-year average) - Disability and survivor benefits (for members who die before retirement) based on highest one-year pay 	2004 - All SDRS benefits (retirement, disability, and survivor) based on final average compensation 2017 - Final average compensation period extended to five years, with a phase-in period for Foundation members: for credited service ending prior through June 30, 2021: three-year average; for credited service ending after June 30, 2021, but before July 1, 2022: four-year average; for credited service ending after June 30, 2022: five-year average

**Generational Member
History of Basic Plan Provisions**

Provision	Status since 2017	Benefit Improvements
Benefit Formula * Class A * Class B Public Safety * Class B Judicial	1.80% 2.0% 3.333% / 2.0%	
Improvement Factor	0.5% to 3.5% compound, indexed to CPI-W and based on SDRS funded status	2021 - 0% to 3.5% compound, indexed to CPI-W and based on SDRS funded status
Early Retirement * Class A * Class B Public Safety * Class B Judicial	Early retirement: age 57 with 5% per year reduction Early retirement: age 47 with 5% per year reduction Early retirement: age 57 with 5% per year reduction	
Variable Retirement Account	A member account credited with up to 1.5% of compensation and investment earnings equal to the net SDRS investment return for each fiscal year. Payable as a single sum when monthly benefits begin.	
Spouse Benefit	At retirement, married member may elect single-life benefit or a reduced joint and survivor benefit, with 60% or 100% of the member's benefit continuing to a surviving spouse	

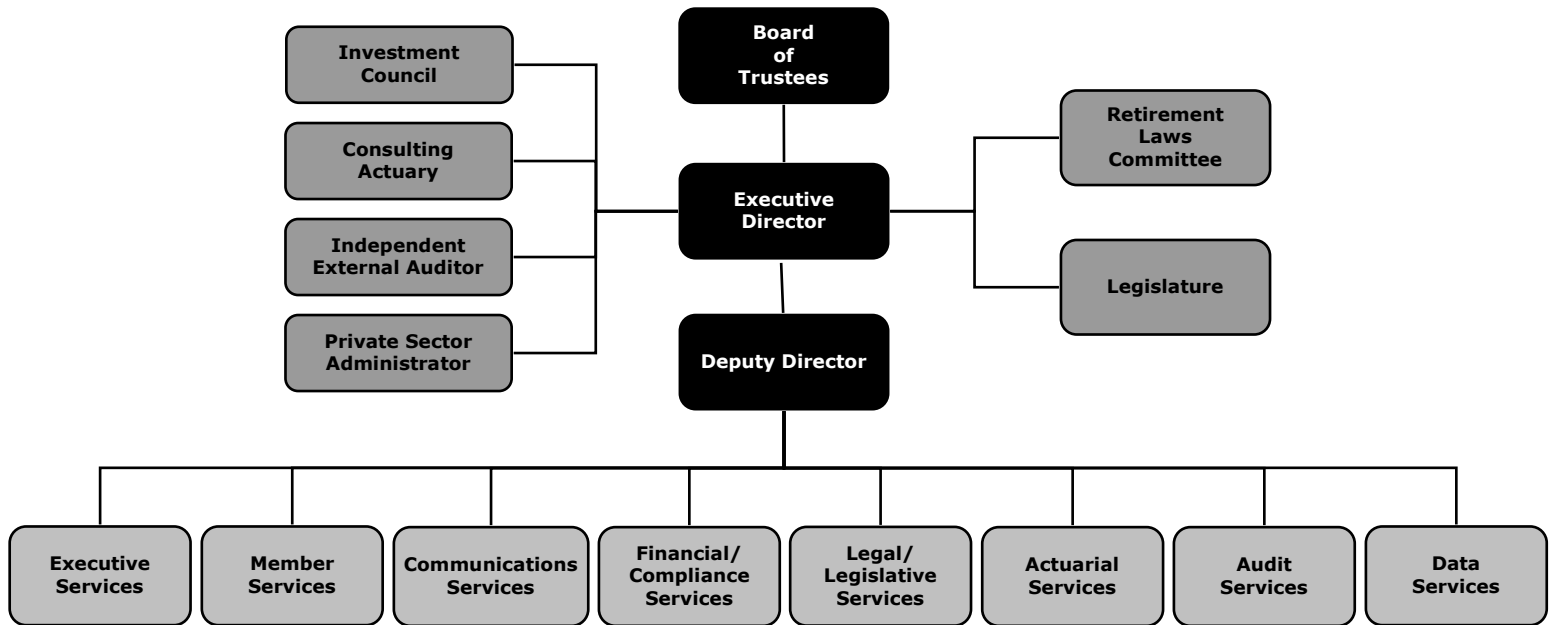
BOARD OF TRUSTEES



<p>James Johns, Chair Represents public safety members Board service began in July 2006 Captain City of Rapid City Black Hawk</p>	<p>Represents state employees Board service began in July 2004 Engineering Supervisor Department of Transportation Glenham</p>	<p>Eric Stroeder, Vice Chair</p>
<p>Karl Alberts Represents municipal employees Board service began in July 2011 Finance Officer City of Aberdeen Aberdeen</p>	<p>Represents state employees Board service began in July 2021 Auditor Department of Revenue Pierre</p>	<p>Jill Lenards</p>
<p>James Appl Represents teachers Board service began in July 2017 Public School Teacher Aberdeen School District Aberdeen</p>	<p>Represents classified employees Board service began in July 2018 Housing Management Officer South Dakota Housing Development Authority Pierre</p>	<p>Kevin Merrill</p>
<p>Mark Barnett Represents retirees Board service began in July 2021 Retired Judge Pierre</p>	<p>Represents judicial employees Board service began in December 2018 Justice South Dakota Supreme Court Sioux Falls</p>	<p>Justice Mark Salter</p>
<p>Annette Brant Represents county employees Board service began in July 2020 Chief Deputy Treasurer Pennington County Rapid City</p>	<p>Governor's appointee Board service began in December 2019 Commissioner Bureau of Human Resources Pierre</p>	<p>Darin Seeley</p>
<p>Penny Brunken Represents teachers Board service began in July 2016 Public School Teacher Career & Technical Education Academy Sioux Falls</p>	<p>Governor's appointee Board service began in April 2022 Commissioner Bureau of Finance and Management Pierre</p>	<p>James Terwilliger</p>
<p>Matt Clark Represents South Dakota Investment Council Board service began in January 2005 State Investment Officer Non-voting ex-officio board member Sioux Falls</p>	<p>Represents elected municipal officials Board service began in July 2019 City Council Member City of Watertown Watertown</p>	<p>Glen Vilhauer</p>
<p>Kathryn Greenway Represents school boards Board service began in July 2016 Member Yankton School Board Yankton</p>	<p>Represents Board of Regents employees Board service began in July 2020 Associate Vice President for Student Affairs South Dakota State University Volga</p>	<p>Douglas Wermedal</p>
<p>Myron Johnson Represents county commissioners Board service began in April 2016 Commissioner Codington County Watertown</p>		



ORGANIZATIONAL CHART



Administration

EXECUTIVE DIRECTOR Travis W. Almond, CRC®

DEPUTY DIRECTOR Jacquelyn Storm, JD

EXECUTIVE ASSISTANT/
HUMAN RESOURCES
MANAGER Dawn M. Smith, CRC®

Management Group

CHIEF FINANCIAL OFFICER Michelle Mikkelsen, CRC®

MEMBER SERVICES MANAGER Michelle Humann, CRC®

SENIOR ACTUARY Douglas J. Fiddler,
ASA, EA, MAAA, FCA

AUDIT MANAGER Brittnie Adamson, CRC®

Advisors, Auditors, and Administrators

EXTERNAL CONSULTING
ACTUARY Cavanaugh Macdonald
Consulting, LLC
Naperville, IL

EXTERNAL
AUDITOR Eide Bailly LLP
Boise, ID

PRIVATE SECTOR
ADMINISTRATOR Nationwide Retirement Solutions
Columbus, OH

RETIREMENT
CONSULTANT R. Paul Schrader
Denver, CO

INFORMATION SERVICES State of South Dakota
Bureau of Information and
Telecommunications (BIT)
Pierre, SD

Schedule of Administrative Expenses is located on page 41. Schedule of Investment Activity Expenses is located on page 85.



FINANCIAL SUMMARY

- Auditor's Opinion**
- Management's Discussion and Analysis**
- Basic Financial Statements**
- Statement of Fiduciary Net Position**
- Statement of Changes in Fiduciary Net Position**
- Notes to Financial Statements**
- Required Supplementary Information**
- Schedule of Changes in the System's Net Pension Asset
- Schedule of System's Net Pension Asset
- Schedule of System's Contributions
- Schedule of Investment Returns
- Notes to Trend Data
- Other Supplementary Information**
- Schedule of Administrative Expenses
- Schedule of Investment Activity Expenses
- Schedule of Payments to Consultants
- GASB Letter



Independent Auditor's Report

To the Board of Trustees
South Dakota Retirement System
Pierre, South Dakota

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the pension fund of the South Dakota Retirement System (SDRS), a component unit of the State of South Dakota, as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise SDRS's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective statement of the fiduciary net position of the South Dakota Retirement System, a component unit of the State of South Dakota, as of June 30, 2023, and the respective statement of changes in fiduciary net position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States (*Government Auditing Standards*). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of SDRS and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of Matter

As described in Note 2 to the financial statements, the financial statements include investments valued at \$3,452,798,102 (23.81 percent of net position) whose carrying values have been estimated by management in the absence of readily determinable fair values. Management's estimates are based on information provided by the fund managers or the general partners. Our opinion is not modified with respect to this matter.

What inspires you, inspires us. | eidebailly.com

877 W. Main St., Ste. 800 | Boise, ID 83702-5858 | T 208.344.7150 | F 208.344.7435 | EOE

.....

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America; and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about SDRS's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of SDRS's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about SDRS's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

.....

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that management's discussion and analysis, pension schedules, and notes to the required supplementary information listed in the table of contents be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the SDRS basic financial statements. The additional supplementary information accompanying financial information listed as additional supplemental schedules in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the additional supplementary information accompanying financial information listed as other supplemental schedules in the table of contents are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual report. The other information comprises the introductory, investment, actuarial, and statistical sections but does not include the basic financial statements and our auditor's report thereon. Our opinion on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

.....

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 27, 2023, on our consideration of SDRS's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of SDRS's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering SDRS's internal control over financial reporting and compliance.

Eide Bailly LLP

Boise, Idaho
October 27, 2023

MANAGEMENT'S DISCUSSION AND ANALYSIS

This section presents management's discussion and analysis of the South Dakota Retirement System's (SDRS or the System) financial position and performance as of and for the year ended June 30, 2023. This section is intended to supplement the SDRS financial statements and should be read in conjunction with the remainder of the SDRS financial statements.

- The fiduciary net position of SDRS increased by \$374 million during fiscal year 2023. This increase was primarily due to the investment performance of 5.80 percent, which was below the assumed rate of 6.50 percent.
- SDRS paid \$707 million to SDRS benefit recipients in fiscal year 2023 compared to \$665 million in 2022.
- SDRS received \$309 million in SDRS member and employer contributions in fiscal year 2023 compared to \$286 million in 2022.

The basic financial statements consist of:

Financial Statements

The System presents the statement of the fiduciary net position as of June 30, 2023, and the statement of changes in fiduciary net position for the year then ended. These statements reflect resources available for the payment of benefits as of the year-end and sources and uses of those funds during the year.

Notes to Financial Statements

The notes to financial statements are an integral part of the financial statements and provide additional detailed information and schedules. Information in the notes provides disclosures concerning SDRS's organization, contributions and reserves, investments, the use of derivatives and securities lending, and other information.

Supplemental Information

In addition to this discussion and analysis, the required supplemental information consists of four schedules of trend data and related notes concerning the funded status of SDRS, changes in net pension liability (asset), investment returns, actuarial assumptions, and employer contributions.

Other supplementary schedules include detailed information on administrative expenses incurred by SDRS and a breakout of investment manager fees.

Financial Highlights

Overview of the Financial Statements and Accompanying Information

Financial Analysis

SDRS is a cost-sharing, multiple-employer public employee retirement system. SDRS provides retirement, disability, and survivor benefits for employees of the state of South Dakota and its political subdivisions. The benefits are funded through member and employer contributions and investment income.

SDRS benefits are based on the members' final average compensation, their years of credited service, and a benefit multiplier.

Summary of Fiduciary Net Position June 30, 2023 and 2022

A summary of the fiduciary net position is shown below:

Assets	2023	2022
Cash and cash equivalents	\$ 8,457,920	\$ 9,928,347
Receivables	61,655,734	50,889,952
Investments, at fair value	14,453,695,128	14,061,778,901
Other assets	458,218	717,865
Due from brokers—futures transactions	—	16,469,458
Total assets	\$14,524,267,000	\$14,139,784,523
Liabilities		
Accounts payable and accrued expenses	\$ 2,444,505	\$ 3,545,316
Unsettled investment purchases	376,059	10,169,339
Due to brokers—futures transactions	20,993,332	—
Total liabilities	\$ 23,813,896	\$ 13,714,655
Net position restricted for pension benefits	\$14,500,453,104	\$14,126,069,868

Change in Fiduciary Net Position

Additions to the fiduciary net position include member and employer contributions and net investment income. The fixed member and employer contribution rates are established by law. On an annual basis, an actuarial valuation of SDRS is made to determine the adequacy of the fixed contribution rates to pay the normal cost of benefits, expenses, and amortize the unfunded actuarial accrued liability. In addition to the fixed contributions, members and employers may make additional contributions to purchase uncredited prior service. These purchase or acquisition payments are also included as contributions.

Income from investments is the other primary source of revenue for SDRS. The actuarial assumed investment rate was 6.5 percent at June 30, 2023. The net money-weighted investment returns were 5.80 percent for 2023 and -0.64 percent for 2022.

Deductions from fiduciary net position are primarily benefit payments. During 2023, SDRS paid \$707 million to benefit recipients or 6.3 percent more than 2022. The increase is due to the annual cost-of-living adjustment, which was 3.5 percent for fiscal year 2023, and additional annuitants. Refunds of accumulated contributions during 2023 decreased 9.6 percent. Administrative costs of SDRS increased 6.1 percent during 2023.

A summary of the changes in fiduciary net position is shown below:

	2023	2022	% Change
Additions:			
Employee contributions	\$ 153,798,895	\$ 143,041,545	7.5%
Employer contributions	154,761,704	143,270,826	8.0
Investment income (loss)	806,061,088	(91,538,866)	(980.6)
Total additions	1,114,621,687	194,773,505	472.3
Deductions:			
Benefits	707,072,236	665,067,430	6.3
Refunds of contributions	28,008,011	30,973,246	(9.6)
Administrative expenses	5,158,204	4,862,000	6.1
Total deductions	740,238,451	700,902,676	5.6
Net change in net position	374,383,236	(506,129,171)	(174.0)
Plan net position restricted for pension benefits:			
Beginning of year	14,126,069,868	14,632,199,039	(3.5)
End of year	\$14,500,453,104	\$14,126,069,868	2.7%

Summary of Changes in Fiduciary Net Position June 30, 2023 and 2022

SDRS investment portfolio management is the statutory responsibility of the South Dakota Investment Council. The South Dakota Investment Office is the primary investment manager, but the Investment Council may utilize the services of external money managers.

Investments

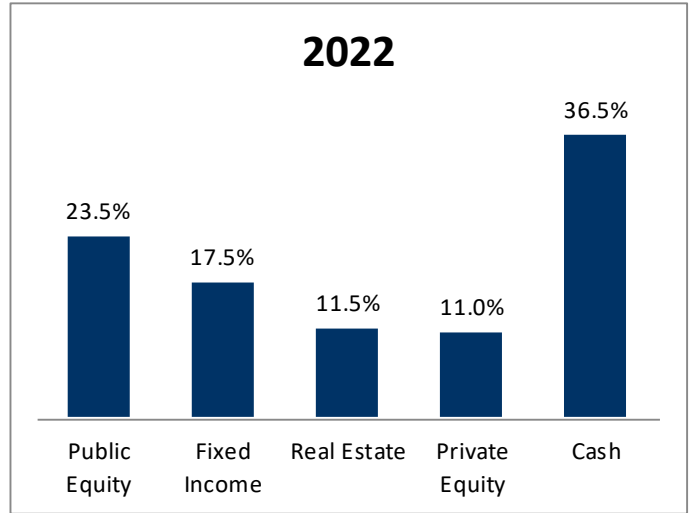
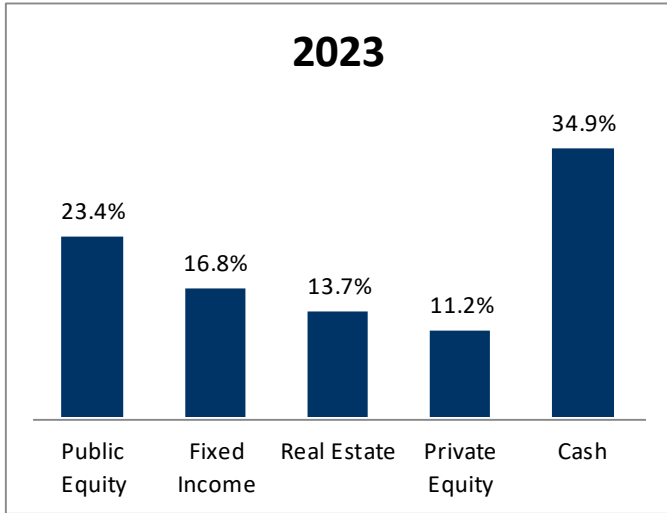
Net money-weighted investment performance during 2023 and 2022 was 5.80 percent and -0.64 percent, respectively.

The Investment Council is governed by the prudent-person standard, as defined in South Dakota Codified Law §4-5-27:

§4-5-27. Prudent-person standard required in investments. Any investments under the provisions of §4-5-12 to §4-5-39, inclusive, shall be made with the exercise of that degree of judgment and care, under circumstances then prevailing, which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation but for investment, considering the probable safety of their capital as well as the probable income to be derived.

Though monthly benefit payments exceed monthly contributions, SDRS is not subject to sudden, substantial, and unexpected withdrawals. As a result, it is not necessary to maintain a high percentage of assets in short-term investments unless that is deemed to be the best investment strategy. This allows the SDRS trust fund to be fully invested in a diversified portfolio of securities.

Investment Summary



Plan Status

SDRS’s funding policy established objectives necessary for the management of SDRS based on statutory member and employer contributions. SDRS continues to be a very well-funded system with a fair value funded ratio of 100.07%.

Requests for Information

Requests for information about SDRS may be directed to the South Dakota Retirement System at PO Box 1098, Pierre, SD 57501. You may also contact SDRS online at www.sd.gov/sdrs.

BASIC FINANCIAL STATEMENTS

Assets		Statement of Fiduciary Net Position June 30, 2023
Cash and cash equivalents	<u>\$8,457,920</u>	
Receivables:		
Employer	3,638,368	
Employee	3,731,295	
Benefits	255,290	
Unsettled investment sales	1,436,465	
Accrued interest and dividends	<u>52,594,316</u>	
Total receivables	<u>61,655,734</u>	
Investments, at fair value:		
Fixed income	5,671,278,313	
Equities	5,329,618,713	
Real estate	1,826,338,458	
Private equity	<u>1,626,459,644</u>	
Total investments, at fair value	<u>14,453,695,128</u>	
Properties, at cost	<u>13,159</u>	
(net of accumulated depreciation of \$22,362)		
Assets used in plan operations, at cost	<u>425,435</u>	
(net of accumulated depreciation of \$1,616,653)		
Other assets	<u>19,624</u>	
Total assets	<u>14,524,267,000</u>	
Liabilities		
Accounts payable and accrued expenses	2,444,505	
Unsettled investment purchases	376,059	
Due to brokers—futures transactions	<u>20,993,332</u>	
Total liabilities	<u>23,813,896</u>	
Net position restricted for pension benefits	<u>\$14,500,453,104</u>	

See accompanying notes to financial statements.

**Statement of
Changes in
Fiduciary
Net Position**
Year Ended
June 30, 2023

Additions	
Contributions:	
Employee	\$153,798,895
Employer	<u>154,761,704</u>
Total contributions	<u>\$308,560,599</u>
Investment income	
<i>From investing activities:</i>	
Net increase in fair value of investments	515,266,187
Interest	178,591,855
Dividends	153,614,829
Real estate	<u>21,741,574</u>
Investment activity income	869,214,445
Less investment activity expenses	<u>(63,467,795)</u>
Net investment activity income	<u>805,746,650</u>
<i>From security lending activities:</i>	
Security lending income	449,190
Security lending expenses	<u>(134,752)</u>
	<u>314,438</u>
Total additions	<u>1,114,621,687</u>
Deductions	
Benefits	707,072,236
Refunds of contributions	28,008,011
Administrative expenses	<u>5,158,204</u>
Total deductions	<u>740,238,451</u>
Net change in net position	<u>374,383,236</u>
Net position restricted for pension benefits	
Beginning of year	<u>14,126,069,868</u>
End of year	<u>\$14,500,453,104</u>

See accompanying notes to financial statements.

Notes to Financial Statements

1) General Description of the System

The South Dakota Retirement System (SDRS or the System) is a cost-sharing, multiple-employer public employee retirement system (PERS) established to provide retirement benefits for employees of the state of South Dakota (the State) and its political subdivisions. Members of SDRS include full-time employees of public schools, the State, the Board of Regents, city and county governments, and other public entities. Public schools, cities, and counties may choose not to include certain full-time employees in the System.

SDRS is a component unit of the State of South Dakota and as such is included in the State's financial report as a pension trust fund. Authority for establishing, administering, and amending plan provisions is found in South Dakota Codified Law (SDCL) 3-12C.

The South Dakota Retirement System Board of Trustees (the Board) is the governing authority of SDRS. The Board consists of 14 elected representatives from participating groups, two appointees of the governor, and an ex-officio nonvoting representative of the South Dakota Investment Council. The elected representatives of the Board are two teacher members; two State employee members; a participating municipality member; a participating county member; a participating classified employee member; a current contributing Class B member other than a justice, judge, or magistrate judge; a county commissioner of a participating county; a school district board member; a justice, judge, or magistrate judge; an elected municipal official of a participating municipality; a retiree; and a faculty or administrative member employed by the Board of Regents. The two Governor's appointees consist of one head of a principal department established pursuant to SDCL 1-32-2, or one head of a bureau under the office of executive management and one individual from the private or public sector.

SDRS is a hybrid defined benefit plan designed with several defined contribution plan type provisions. The system includes four classes of members: Class A general members, Class B public safety and judicial members, Class C Cement Plant Retirement Fund members, and Class D Department of Labor and Regulation members. Members and their employers make matching contributions, which are defined in State statute. SDRS may expend up to 3 percent of the annual contributions for administrative expenses subject to approval by the executive and legislative branches of the State.

Members that were hired before July 1, 2017, are Foundation members. Class A Foundation members and Class B Foundation judicial members who retire after age 65 with three years of contributory service are entitled to an unreduced annual retirement benefit. An unreduced annual retirement benefit is also available after age 55 for Class A Foundation members where the sum of age and credited service is equal to or greater than 85 or after age 55 for Class B Foundation judicial members where the sum of age and credited service is equal to or greater than 80. Class B Foundation public safety members can retire with an

unreduced annual retirement benefit after age 55 with three years of contributory service. An unreduced annual retirement benefit is also available after age 45 for Class B Foundation public safety members where the sum of age and credited service is equal to or greater than 75. All Foundation retirement benefits that do not meet the above criteria may be payable at a reduced level. Class A and B eligible spouses of Foundation members will receive a 60 percent joint survivor benefit when the member dies.

Members that were hired on/after July 1, 2017, are Generational members. Class A Generational members and Class B Generational judicial members who retire after age 67 with three years of contributory service are entitled to an unreduced annual retirement benefit. Class B Generational public safety members can retire with an unreduced annual retirement benefit after age 57 with three years of contributory service. At retirement, married Generational members may elect a single-life benefit, a 60 percent joint and survivor benefit, or a 100 percent joint and survivor benefit. All Generational retirement benefits that do not meet the above criteria may be payable at a reduced level. Generational members will also have a variable retirement account (VRA) established, in which they will receive up to 1.5 percent of compensation funded by part of the employer contribution. VRAs will receive investment earnings based on investment returns.

Class C Cement Plant Retirement Fund members have a normal retirement age of 65 and early retirement is age 55 with the required credited service. Class C Cement Plant provides for disability payments for those disabled on or before March 16, 2001. All members of the Cement Plant Retirement Plan on March 15, 2001, were 100 percent vested. Class C members may elect a single-life benefit, or joint and survivor benefits as described in their plan documents.

Class D Department of Labor and Regulation plan members entered SDRS on July 1, 2020, with benefits determined under the terms of the prior plan. All Class D members are currently retired and receiving benefits and are eligible for the SDRS COLA.

Legislation enacted in 2017 established the current COLA process. At each valuation date:

- Baseline actuarial accrued liabilities will be calculated assuming the COLA is equal to the long-term inflation assumption of 2.25 percent.
- If the fair value of assets is greater or equal to the baseline actuarial accrued liabilities, the COLA will be:
 - * The increase in the 3rd quarter CPI-W, no less than 0.5 percent and no greater than 3.5 percent.
- If the fair value of assets is less than the baseline actuarial accrued liabilities, the COLA will be:
 - * The increase in the 3rd quarter CPI-W, no less than 0.5 percent and no greater than a restricted maximum such that, that if the restricted maximum is assumed for future COLAs, the fair value of assets will be greater or equal to the accrued liabilities.

Legislation enacted in 2021 reduced the minimum COLA from 0.5 percent to 0.0 percent.

All benefits except those depending on the Member's Accumulated Contributions are annually increased by the Cost-of-Living Adjustment.

SDRS is a qualified defined benefit retirement plan under Section 401(a) of the Internal Revenue Code and is exempt from federal income taxes. SDRS last received a favorable determination letter dated October 3, 2016, in which the Internal Revenue Service stated that the System, as then designated, was in compliance with the applicable requirements of the Internal Revenue Code. SDRS believes that the system currently is designed and being operated in compliance with the applicable requirements of the Internal Revenue Code, and therefore, SDRS continues to be tax-exempt as of June 30, 2023. Therefore, no provision for income taxes has been included in SDRS's financial statements.

SDRS is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. SDRS participates in the various programs administered by the State. These risk management programs are funded through assessments charged to participating entities. The risk management programs include (1) coverage for risks associated with automobile liability and general tort liability (including public officials' errors and omissions liability, medical malpractice liability, law enforcement liability, and products liability) through the State's Public Entity Pool for Liability Fund, (2) coverage of employee medical claims through the State's health insurance program, (3) coverage for unemployment benefits through the State's Unemployment Insurance Fund, and, (4) coverage for workers' compensation benefits through the State's Workers' Compensation Fund. Financial information relative to the self-insurance funds administered by the State is presented in the State of South Dakota Annual Comprehensive Financial Report.

As of June 30, 2023, the number of participating governmental employers is as follows:

School Districts	165
State of South Dakota	1
Board of Regents	1
Municipalities	171
Counties	65
Boards and Commissions	104
Total employers	507

At June 30, 2023, SDRS membership consists of the following:

Retirees and beneficiaries currently receiving benefits:	
Class A (general employees)	30,772
Class B (public safety and judicial employees)	2,141
Class C (cement plant employees)	225
Class D (Department of Labor employees)	143
Total retirees and beneficiaries*	33,281

Terminated members entitled to benefits but not yet receiving them:	
Class A (general employees)	23,436
Class B (public safety and judicial employees)	1,582
Class C (cement plant employees)	25
Class D (Department of Labor employees)	0
Total terminated members	25,043

Current active members:	
Vested:	
Class A (general employees)	29,441
Class B (public safety and judicial employees)	2,389
Class C (cement plant employees)	10
Class D (Department of Labor employees)	0
Non-vested:	
Class A (general employees)	9,637
Class B (public safety and judicial employees)	1,027
Total current active members	42,504

Grand total	100,828
--------------------	----------------

* There are 80 Class A and 10 Class B public safety and judicial members or beneficiaries whose benefits are currently suspended but are entitled to future benefits. These members or beneficiaries are included as retirees and beneficiaries in their respective classes as listed.

2) Summary of Significant Accounting Policies

a) Basis of Accounting and Presentation

The accompanying financial statements are prepared using the accrual basis of accounting in accordance with U.S. generally accepted accounting principles applicable to governmental accounting for a pension trust fund. Employee and employer contributions are recognized when due pursuant to formal commitment, as well as statutory requirements. Pension benefit payments are due the first day of the month following the retirement of a member, and the first of each month thereafter. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

b) Method Used to Value Investments

Investments are reported at fair value, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 72. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. GASB 72 sets forth the framework for measuring value. The framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three levels. The three levels of the fair value hierarchy under GASB 72 are described as follows:

Level 1—Valuation inputs are quoted prices in active markets for identical asset or liability as of the measurement date.

Level 2—Valuation inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly or indirectly.

Level 3—Valuation inputs are based on significant unobservable inputs for an asset or liability.

As a practical expedient, GASB 72 allows the net asset value (NAV) or its equivalent to be used when a readily determinable fair value is not available. The NAV valuations are based on valuations of the underlying companies as determined and reported by the fund manager or general partner and are excluded from the fair value hierarchy.

Additional required disclosures can be found in Note 5: Cash and Investments.

Investments denominated in foreign currencies are translated into United States Dollars (USD) using the year-end spot foreign currency exchange rates. Foreign exchange rate gains and losses are included with the net appreciation in fair value of investments.

Alternative investments consist of investments in a variety of markets and industries through partnerships, corporate entities, co-investments, and other investment vehicles. For alternative investments where no readily ascertainable market value exists, management, in consultation with their investment advisors, values these investments in good faith based upon the investment’s current financial statements or other information provided by the underlying investment advisor. For all of these alternative investments, SDRS has determined that net asset value reported by the underlying fund approximates the fair value of the investment. These fair value estimates are, by their nature, subjective and based on judgment. These alternative investments were valued at \$3,452,798,103 (23.81 percent of net position) at June 30, 2023. The estimated fair value of these investments may differ significantly from values that would have been used had a ready market existed.

Futures contracts are marked to market based on quoted futures prices with changes in fair value reflected in the current period.

Interest is accrued in the period in which it is earned and dividend income is recorded on the ex-dividend date.

The arithmetically calculated money-weighted return net of fees was 5.80 percent in 2023. The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of pension plan investment by the proportion of time they are available to earn during that period. The rate of return equates the sum of weighted external cash flows into and out of pension plan investments to the ending fair value of the pension plan investment.

c) Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the plan administrator to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and

liabilities at the date of the financial statements, and changes therein. Actual results could differ from those estimates.

3) Contributions and Reserves

a) Contributions

Covered employees are required by statute to contribute a percentage of their salary to SDRS as follows:

Class A members	6.0% of salary
Class B public safety members	8.0% of salary
Class B judicial members	9.0% of salary

All participating employers are required to contribute an amount equal to the members’ contributions. Members may make an additional contribution of 1.5 percent of compensation for optional spouse coverage (closed to new enrollees after July 1, 2010).

SDRS is funded by fixed member and employer contributions at a rate established by South Dakota law. On an annual basis, an actuarial valuation of SDRS is performed to determine the adequacy of the fixed contributions to pay the normal costs and expenses if the System is fully funded or pay the normal costs, expenses, and amortize the unfunded actuarial accrued liability (UAAL) if the System is not fully funded. The June 30, 2023, actuarial valuation of the plan determined that the System is fully funded and that the statutorily required employer contributions meet the requirements for the annual required contributions of the employers under GASB Statement No. 67, *Financial Reporting for Pension Plans*; and the statutorily required employer contributions are sufficient to pay the employer normal cost and expenses. Annual required contributions of the employers equal to the statutorily required contributions have been listed below pursuant to GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*.

Contributions during fiscal year 2023 totaling \$308,560,599 (\$153,798,895 employee, \$154,761,704 employer) were made in accordance with statutory rates. The employer contributions exceed the employee contributions due to the effect of SDCL 3-12C-1405, which governs the contributions of retired members who enter covered employment. Contributions for the last 5 fiscal years are as follows:

<u>Year ending June 30</u>	<u>Employer</u>	<u>% Contributed</u>
2023	\$154,761,704	100%
2022	143,270,826	100
2021	136,159,432	100
2020	131,681,949	100
2019	127,572,348	100

SDRS allows participating entities to pay their deferred contributions for funding of accrued benefits over periods of up to 20 years and members to pay for the purchase of certain prior service over periods of up to 10 years. Interest is charged at the assumed rate of return for the plan at the date the contract is initiated.

Future payments will be received as follows:

<u>Year ending June 30</u>	<u>Employees</u>
2024	\$29,559
2025	19,031
2026	19,696
2027	13,471
2028	13,087
Later	<u>11,680</u>
Deferred contributions receivable at June 30, 2023	<u>\$106,524</u>

4) Net Pension Liability (Asset) of the System

The components of the net pension liability (asset) of the System at June 30, 2023, was as follows:

Total pension liability	\$ 14,490,692,654
Plan fiduciary net position	<u>(14,500,453,104)</u>
Net pension liability (asset)	<u>\$ (9,760,450)</u>

Fiduciary net position as a percentage of net pension liability (asset) 100.07%

Actuarial Assumptions—The total pension liability was determined by an actuarial valuation as of June 30, 2023, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Salary increases	Graded by years of service from 7.66% at entry to 3.15% after 25 years of service
Discount rate	6.50%, net of pension plan investment expenses
Future COLAs	1.91%

All mortality rates were based on Pub-2010 amount-weighted mortality tables, projected generationally with improvement Scale MP-2020.

Active and Terminated Vested Members are as follows:
 Teachers, Certified Regents, and Judicial: PubT-2010
 Other Class A Members: PubG-2010
 Public Safety Members: PubS-2010

Retired Members are as follows:
 Teacher, Certified Regents, and Judicial Retirees: PubT-2010, 108% of rates above age 65
 Other Class A Retirees: PubG-2010, 93% of rates through age 74, increasing by 2% per year until 111% of rates at age 83 and above
 Public Safety Retirees: PubS-2010, 102% of rates at all ages

Beneficiaries are as follows:
 PubG-2010 contingent survivor mortality table

Disabled Members are as follows:
 Public Safety: PubS-2010 disabled member mortality table
 Others: PubG-2010 disabled member mortality table

The actuarial assumptions used in the June 30, 2023,

valuation were based on the results of an actuarial experience study for the period of July 1, 2016, to June 30, 2022.

Discount Rate—The discount rate used to measure the total pension liability was 6.50 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that matching employer contributions will be made at rates equal to the member rate. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of (asset)/liability to changes in the discount rate—The following presents the net pension liability/ (asset) of the System, calculated using the discount rate of 6.50 percent, as well as what the System’s net pension (asset) liability would be if it were calculated using a discount rate that is 1 percent point lower (5.50 percent) or 1 percent point higher (7.50 percent) than the current rate:

	<u>1% Decrease</u>	<u>Current Discount Rate</u>	<u>1% Increase</u>
System’s net pension (asset)/liability	\$2,000,548,973	\$(9,760,450)	\$(1,653,810,062)

5) Cash and Investments

Cash and Cash Equivalents

Cash and cash equivalents are held by the State Treasurer and were invested in the State’s pooled investment fund. Investments in the State’s pooled investment fund consist primarily of short-term U.S. Treasury and Agency obligations, short-term U.S. Corporate securities, bank certificates of deposit, and money market funds.

The custodial credit risk for deposits is the risk that, in the event of the failure of a depository institution, a government will not be able to recover deposits or will not be able to recover collateral securities that are held in the possession of an outside party. SDRS has a formal deposit policy specific to custodial credit risk and foreign currencies. Policy states that the USD equivalent of any non-USD currency cannot exceed 2.0 percent of any portfolio on a trade date +5 calendar days basis. All portfolios as of June 30, 2023, meet policy guidelines. These deposits are not collateralized or covered by depository insurance. As a result, \$18,488,037 was exposed to custodial credit risk, which is recorded in investments in the statement of fiduciary net position.

Investments

Investment portfolio management is the statutory responsibility of the South Dakota Investment Council (SDIC), which may utilize the services of external money managers for management of a portion of the portfolio. SDIC is governed by the Prudent Person Rule (i.e., the council should use the same degree of care as a prudent

person). Current SDIC investment policies dictate limits on the percentage of assets invested in various types of vehicles (equities, fixed income securities, real estate, cash, private equity, etc.). The long-term expected rate of return on pension plan investments was determined using a method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. In addition, the long-term expected rate of return includes an expectation that a portion of the consistent, historical outperformance relative to expectations due to the dynamic asset allocation process will continue. Best estimates of real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2023, (see the discussion of the pension plan's investment policy) are summarized in the following table using geometric means:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Public Equity	56.3%	3.8%
Investment Grade Debt	22.8%	1.7%
High Yield Debt	7.0%	2.7%
Real Estate	12.0%	3.5%
Cash	1.9%	0.8%
	100.0%	

Below is a detail of the investment balances and amounts managed by the respective fund managers:

	<u>Cost</u>	<u>Fair Value</u>
State of South Dakota Investment Council	\$9,923,149,336	\$10,798,562,257
Blackstone Capital Partners	71,388,078	126,768,201
Blackstone Energy Partners	86,210,020	159,718,996
Blackstone Real Estate Partners	952,272,374	1,142,811,277
Bridgewater	36,742,005	100,995,151
Brookfield Strategic Partners	212,507,966	249,105,319
Capital International	26,311,901	13,810,572
Carlyle	34,313,493	47,546,418
Cinven	178,276,107	241,634,848
CVC	184,253,179	250,201,364
Cypress Merchant Banking	17,454	17,454
Doughty Hanson	147,584	533,324
Encap Energy Capital	38,236,853	52,695,938
KKR	—	353,720
Lone Star Real Estate	130,082,054	122,301,066
Pinebridge	3,187,058	3,048,518
Riverstone	111,815,195	113,307,834
Rockpoint Real Estate	145,458,321	140,404,328
Sanders Capital	58,927,615	86,694,898
Silver Lake	367,691,386	616,822,457
Starwood Real Estate	179,164,845	171,716,468
Tesley	14,873,934	14,641,889
TCW	2,831	2,831
Total	\$12,755,029,589	\$14,453,695,128

a) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The investment grade fixed income portfolios of SDRS are benchmarked to the duration of the FTSE Broad Investment Grade (BIG) Index and must fall between 70 percent and 130 percent of the BIGs duration.

The durations of the various investment types are listed in the following table:

<u>Investment type</u>	<u>Fair value</u>	<u>Duration (in years)</u>
U.S. Treasuries	\$273,958,200	5.06
U.S. Treasury Bills	892,620,907	0.16
U.S. Treasury STRIPS	359,968,438	7.34
U.S. Agencies	30,332,375	3.89
Investment Grade Corporates	406,647,033	4.96
High-Yield Corporates	456,577,128	3.95
Agency Mortgage-Backed Securities	278,548,161	6.40
Total	\$2,698,652,242	3.67

The SDRS fixed income portfolios invest in mortgage-backed securities. These securities are sensitive to prepayments by mortgagees, which is likely in declining interest rate environments, thereby reducing the value of these securities.

b) Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to SDRS. SDIC sets the investment policy annually for the SDRS. This policy establishes the average percentage invested in each asset category and the fund allocation range that each asset category can vary during the fiscal year. As of June 30, 2023, the portfolios held the following investments, excluding those issued by or explicitly guaranteed by the U.S. government, which are not considered to have credit risk. The investments are grouped as rated by Moody's Investors Service.

<u>Moody's rating</u>	<u>Fair value</u>
Aaa	\$2,780,395,452
Aa	88,549,308
A	171,140,557
Baa	132,713,812
Ba	184,428,723
B	243,864,731
Caa	19,650,448
D	41
Unrated	8,633,184
Total	\$3,629,376,256

c) Concentration of Credit Risk

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of SDRS's investment in a single issuer. SDRS does not have guidelines to limit its investments in any particular investment. SDRS does not have investments in any one issuer that represent 5 percent or more of the total fair value of investments as of June 30, 2023 (excluding those issued by or explicitly guaranteed by the U.S. government).

d) Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. SDRS's exposure to foreign currency risk derives from its positions in foreign currency and foreign-currency-denominated equity and fixed income investments. SDRS does not hedge foreign currency back to U.S. dollars (to match the unhedged benchmark), but does allow hedging under certain circumstances, when deemed appropriate. The

portfolio's exposure to foreign currency risk at June 30, 2023, is as follows (in U.S. dollar fair value):

Currency	Equities	Cash	Total
Australian Dollar	\$ 15,969,160	\$ 92,399	\$ 16,061,559
British Pound	165,956,470	863,137	166,819,607
Canadian Dollar	93,686,288	3,630,136	97,316,424
Danish Krone	5,986,060	8,546	5,994,606
Euro	342,325,210	2,665,677	344,990,887
Hong Kong Dollar	1,122,950	—	1,122,950
Japanese Yen	151,775,036	8,319,074	160,094,110
South Korean Won	90,427,998	—	90,427,998
Norwegian Krone	3,052,960	1,443,376	4,496,336
Singapore Dollar	1,729,975	—	1,729,975
Swedish Krona	12,577,871	1,460,008	14,037,879
Swiss Franc	137,344,736	5,684	137,350,420
Thai Baht	792,337	—	792,337
Total fair value	\$1,022,747,051	\$18,488,037	\$1,041,235,088

Investments with limited partnerships and certain global equity investments with external managers, which are not included in the table above, may expose SDRS's portfolio to additional foreign currency risk. The total fair value of investments in real estate and private equity limited partnerships as of June 30, 2023, was \$3,452,798,103. The total fair value of hedge funds investments managed by external managers was \$115,637,039.

e) Return on Investments

During fiscal year 2023, SDRS's investments (including investments bought and sold, as well as held during the year) appreciated in value by \$515,266,187.

The calculation of realized gains and losses is independent of a calculation of the net change in the fair value of investments. Realized gains and losses on investments that had been held in more than one fiscal year and sold in the current year were included as a change in the fair value of investments reported in the prior years and current year.

Change in Fair Value of Investments

Appreciation (Depreciation) in fair value of investments:

Equities	\$405,738,036
Fixed income	(28,626,363)
Real estate	(103,913,884)
Private equity	62,983,637
Change in accrued income	16,522,848
Total increase in fair value	352,704,274

Realized gain (loss) on investments:

Equities	273,882,080
Fixed income	(14,848,511)
Real estate	55,449,215
Private equity	86,528,144
Total net realized gains	401,010,928

Futures—change in unrealized gain (loss)	(152,592,153)
Futures—realized gain (loss)	(85,856,862)
Net loss on futures	(238,449,015)
Net appreciation in investments	\$515,266,187

f) Securities Lending

State statutes and SDRS policies permit the use of investments for securities lending transactions. These transactions involve the lending of corporate debt, foreign equity securities, and domestic equity securities to broker-dealers for collateral in the form of securities, with the simultaneous agreement to return the collateral for the same securities in the future. SDRS's securities custodian is an agent in lending securities and shall accept only U.S.

government securities or its agencies as collateral for any loan or loaned securities. The collateral required must equal 102 percent of fair value plus accrued interest for corporate debt securities, 102 percent of fair value for U.S. equity securities, and 105 percent of fair value for foreign securities except in the case of loans of foreign securities, which are denominated and payable in U.S. dollars, in which event the collateral required is 102 percent of fair value. The earnings generated from the collateral investments result in the gross earnings from lending activities, which is then split on a percentage basis with the lending agent.

The fair value of securities on loan as of June 30, 2023, was \$86,154,876 and the collateral held on the same date was \$89,517,339. SDRS has no credit risk exposure to borrowers because the amounts SDRS owes the borrowers exceed the amounts the borrowers owe SDRS. The contract with the lending agent requires the agent to indemnify SDRS if the borrowers fail to return the loaned securities and the collateral is inadequate to replace the securities lent.

All securities loans can be terminated on demand by either SDRS or the borrower. SDRS does not have the ability to pledge or sell collateral securities unless the borrower defaults; therefore, no asset and corresponding liability for the collateral value of securities received has been established on the statement of fiduciary net position. Regarding restrictions on loans, the securities lending agreement does limit the total value of securities that can be out on loan on any given day.

g) Custodial Credit Risk

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, a government will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. SDRS securities lending policies are detailed in the preceding Securities Lending section. As of June 30, 2023, the SDRS does not have custodial credit risk with regard to the security lending collateral.

h) Fair Value Measurements and Applications
The following table shows the fair value in accordance with the GASB hierarchy:

Investments Measured at Fair Value	06/30/23	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Fixed Income Securities				
US Treasuries	\$ 273,958,200	\$ —	\$ 273,958,200	\$ —
US Treasury Bills	892,620,907	—	892,620,907	—
US Treasury STRIPS	359,968,438	—	359,968,438	—
US Agencies	30,332,375	—	30,332,375	—
Investment Grade Corporates	406,647,033	—	406,647,033	—
High Yield Corporates	456,577,128	—	456,577,128	—
Agency Mortgage-Backed Securities	275,548,161	—	278,548,161	—
Total Fixed Income Securities	2,698,652,242	—	2,698,652,242	—
Equity Securities				
Domestic Stock	3,675,572,653	3,675,572,653	—	—
Depository Receipts	51,881,749	51,881,749	—	—
ETF-Exchange Traded Funds	796,713,031	796,713,031	—	—
International Stock	1,022,747,052	1,022,747,052	—	—
Preferred Stock	592,895	—	592,895	—
Stock Warrants	94,409	94,409	—	—
Total Equity Securities	5,547,601,789	5,547,008,894	592,895	—
Total Investments by Fair Value Level	\$ 8,246,254,031	\$ 5,547,008,894	\$ 2,699,245,137	\$ —
Investments Measured at the Net Asset Value (NAV)				
Short Term Investment Funds	2,546,233,027			
Multi Strategy Hedge Funds	115,637,039			
Alternative Investments				
Real Estate Funds	1,826,338,458			
Private Equity Funds	1,626,459,544			
Total Alternative Investments	3,452,798,102			
Investments, Measured at NAV	\$ 6,114,668,168			
Total Investments Measured at Fair Value	\$ 14,360,922,199			
Plus: Cash held by Fund Managers	114,157,834			
Plus: GL of FX Transactions	(3,607,454)			
Less: Accrued Monthly Interest	(17,777,451)			
	<u>\$ 14,453,695,128</u>			
Investment Derivative Instruments				
Futures Contracts	\$ (20,993,333)	\$ (20,993,333)		
Foreign Exchange Forward Contracts (liability)	(3,607,454)	—	\$ (3,607,454)	—
Total Investment Derivative Instruments	<u>\$ (24,600,787)</u>	<u>\$ (20,993,333)</u>	<u>\$ (3,607,454)</u>	<u>\$ —</u>

Equity securities classified in Level 1 of the fair value hierarchy are valued using quoted prices in active markets for identical securities as of the measurement date as issued by pricing vendors. Securities classified in Level 2 of the fair value hierarchy include valuations using quoted prices for a similar security in active markets and using observable inputs other than quoted prices for identical securities.

Debt securities classified in Level 2 of the fair value hierarchy are valued using observable inputs other than quoted prices for identical securities. The prices are determined by the use of matrix pricing techniques maintained by various pricing vendors/brokers for these securities. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices.

SDRS holds shares or interest in investments where the fair value of the investments are measured on a recurring basis using net asset value per share (or its equivalent) of the

investment as a practical expedient. The NAV valuations are based on valuations of the underlying companies as determined and reported by the fund manager or general partner.

Derivative instruments classified in Level 1 of the fair value hierarchy represents the pending variance margin on futures contracts which is calculated using quoted prices in active markets for identical securities. Derivative instruments classified in Level 2 of the fair value hierarchy are valued using observable inputs other than quoted prices for identical securities. The foreign currency forward contract valuations are determined by interpolating FX rates for various settlement dates as of June 30, 2023.

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented in the following table:

Investments Measured at the NAV

		Unfunded Commitments	Redemption Frequency (if currently eligible)	Redemption Notice Period
Short-Term Investment Funds (a)	\$2,546,233,027		Daily	0 days
Multi Strategy Hedge Funds (b)	115,637,039		Monthly	5-30 days
Alternative Investments				
Real Estate Funds (c)	1,826,338,458	\$1,122,232,686		
Private Equity Funds (d)	1,626,459,644	505,630,116		
Investments measured at net asset value (NAV)	<u>\$6,114,668,168</u>			

- a) Short-Term Investment Funds. This type includes investments in four open-end mutual funds that invest exclusively or primarily in high-quality, short-term securities that are issued or guaranteed by the U.S. government or by U.S. government agencies and instrumentalities. The fair values of the investments in this type have been determined using the NAV per share of the investments.
- b) Multi-Strategy Hedge Funds. This type includes two investments in funds that may invest in a wide range of asset classes in order to meet fund objectives. The fair values of the investments in this type have been determined using the NAV per share of the investments.
- c) Real Estate Funds. This type includes 27 real estate funds that invest primarily in commercial real estate. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the portfolio's ownership interest in partners' capital. These investments can never be redeemed from the funds. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 20 years. Because it is not probable that any individual investment will be sold, the fair value of each individual investment has been determined using the NAV per share (or its equivalent) of the portfolio's ownership interest in partners' capital.
- d) Private Equity Funds. This type includes 33 private equity funds that invest primarily in leveraged buyouts. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the portfolio's ownership interest in partners' capital. These investments can never be redeemed from the funds. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 20 years. Because it is not probable that any individual investment will be sold, the fair value of each individual investment has been determined using the NAV per share (or its equivalent) of the portfolio's ownership interest in partners' capital.

6) Derivatives

Derivatives are generally defined as contracts whose values depend on, or derive from, the value of an underlying asset, reference rate, or index. SDRS is exposed to various derivative products through the investment management of the SDIC and its external managers. All of SDRS's derivatives are classified as investment derivatives.

Futures Contracts

A futures contract is a contract to buy or sell units of an index or financial instrument at a specified future date at a price agreed upon when the contract is originated. The South Dakota Investment Council purchases and sells futures contracts as a means of adjusting the SDRS portfolio mix at a lower transaction cost than the transactions, which would otherwise occur in the underlying portfolios. During fiscal year ended June 30, 2023, S&P 500 futures and 10-year U.S. Treasury note futures were utilized. Upon entering into such a contract, SDRS pledges to the broker cash or U.S. government securities equal to the minimum initial margin requirement of the futures exchange. Additionally, SDRS receives or pays a daily variation margin, which is an amount of cash equal to the daily fluctuation in value of the contract. The change in fair value of the futures contracts is

presented in the statement of changes in fiduciary net position as "Net appreciation in fair value of investments." The net change in fair value from futures contracts for fiscal year ended June 30, 2023, was \$(238,449,015).

Futures contract positions at June 30, 2023, were as follows:

Description	Expiration Date	Open position	Number of contracts	Notional contract size	Fair value
U.S. Treasury note	Sept 2023	Long	2,250	100,000 par value 6%, 10-year U.S. Treasury note	\$252,597,656
S&P 500 Index	Sept 2023	Short	8,118	\$50 x S&P 500 Index	\$(1,821,780,675)

Foreign Currency Forward Contracts

The SDIC enters into foreign exchange forward contracts for SDRS to manage foreign currency exposure, as permitted by portfolio policies. The fair values of the contracts are presented in the Statement of Fiduciary Net Position as Investments, at fair value—Equities. The change in fair value of the forward contracts is presented in the statement of changes in fiduciary net position as "Net appreciation in fair value of investments." The net change in fair value from foreign currency forward contracts for fiscal year ended June 30, 2023, was \$(4,990,091). At June 30, 2023, the foreign currency forward contracts outstanding were as follows:

Description	Notional amount	Currency	Maturity date	Fair value (US dollars)
Forward buy	\$236,000,000	JPY	8/17/2023	\$(123,085)
Forward buy	\$7,182,000,000	JPY	8/17/2023	\$(3,484,369)

a) Credit Risk

SDRS is exposed to credit risk on derivative instruments that are in asset positions. The SDIC attempts to minimize credit risk by entering into derivatives contracts with major financial institutions. At June 30, 2023, the net fair value of foreign currency forward contracts was \$0. This represents the maximum loss that would be recognized at the reporting date if all counterparties failed to perform as contracted.

b) Foreign Currency Risk

SDRS is exposed to foreign currency risk on its foreign currency forward contracts because they are denominated in foreign currencies. The net fair value of the foreign currency forward contracts in U.S. dollars is \$(3,607,454).

7) Compensated Absences

Annual leave is earned by all SDRS employees. Upon termination, SDRS employees are eligible to receive compensation for their accrued annual leave balances. At June 30, 2023, a liability existed for accumulated annual leave calculated at the employees' June 30, 2023 pay rate in the amount of \$245,046. Employees who have been continuously employed by SDRS and the State for at least seven years prior to the date of their retirement, voluntary resignation, or death will receive payment for one-fourth of their accumulated sick leave balance with such payment not to exceed the sum of 12 weeks of the employee's annual compensation. For employees who have not been employed for seven continuous years, an accrued liability is calculated assuming the likelihood that they will meet the seven-year threshold in the future. At June 30, 2023, a liability existed

for accumulated and accrued sick leave, calculated at the employees' June 30, 2023 pay rate in the amount of \$220,899.

	<u>2023</u>	<u>2022</u>	<u>% change</u>
Total compensated absences	\$465,945	\$435,421	7.01%

The total leave liability for the current year is on the statement of fiduciary net position available for benefits in accounts payable and accrued expenses.

8) Supplemental Retirement Plan

SDRS offers a deferred compensation plan known as the Supplemental Retirement Plan (SRP), created in accordance with Internal Revenue Code Section 457. SRP is available to all public employees and permits them to defer a portion of their salary until future years. The deferred compensation is not available to employees until termination, retirement, death, or unforeseen emergency.

All amounts of compensation deferred under the SRP, all property and rights purchased with those amounts, and all income attributable to those amounts, property, or rights are at all times held in trust for the exclusive benefit of the participants until made available to a participant or the participant's beneficiary.

Of the \$620,364,428 net position restricted for plan benefits at June 30, 2023, \$362,196,312 was held in trust for employees of the State, while the remaining \$258,168,116 represents the assets held in trust for employees of other jurisdictions.

9) Special Pay Plan

The Special Pay Plan (SPP) was established in July 2004 as a qualified plan pursuant to Internal Revenue Code Section 401(a) under the administrative responsibility of the SDRS Board of Trustees. South Dakota state government and the South Dakota Board of Regents are participating units and every state political subdivision may become a participating unit in the plan. The SPP mandates that qualifying employees (over age 55 and \$600 or more in special pay) of participating units defer 100 percent of their special lump-sum termination pay to the plan. The participating unit transfers the deferred pay to the fund. This deferred pay is available to a participant immediately after termination, upon later retirement, or to beneficiaries or an estate upon the participant's death.

Of the \$81,131,699 net position restricted for plan benefits at June 30, 2023, \$45,234,600 was held in trust for employees of the State, while the remaining \$35,897,099 represents the assets held in trust for employees of other jurisdictions.

10) Plan Termination

SDRS is administered in accordance with South Dakota statutes. The statutes provide for full vesting in accrued benefits upon termination of the plan (SDCL 3-12C-221).

11) Commitments

At June 30, 2023, SDRS had uncalled capital commitments to private equity limited partnerships totaling approximately \$505,630,116 and to real estate limited partnerships totaling approximately \$1,122,232,686. The commitments may be called at the discretion of the general partner or may never be called.

12) Litigation

In 2014 and 2015, SDRS held an interest in Fourth Cinven Fund Limited Partnership (the "LP"), an English Limited Partnership. In those years, the LP received material dividends from Avio S.p.A. ("Avio"), an Italian joint stock company; said dividends were promptly distributed by LP to its limited partners, including SDRS.

Upon distribution, Avio subjected the Avio Dividends to withholding tax at statutory rates (the "WHT"). In 2018, SDRS, in its capacity as limited partner of a tax transparent vehicle (LP), applied for a full refund of the WHT suffered on the pro rata portion of the Avio Dividends, claiming the application of withholding tax rates reduced to zero according to the Double Tax Treaty between the United States of America and Italy.

The Italian Tax Authorities never replied to the refund application (so called "silent denial"); accordingly, in compliance with Italian laws, SDRS started the litigation proceedings before the Tax Court of First Instance in order to obtain the declaration of the right to the requested refund.

In February 2023 the Tax Court of First Instance disallowed SDRS appeal. In September, SDRS notified an appeal to the Tax Authorities which is now pending before the Tax Court of Second Instance.

The legal action does not represent an immediate negative contingency.

13) New Accounting Pronouncements

Statement No. 96, "Subscription-Based Information Technology Agreements (SBITAS)" was implemented starting with the fiscal year that ends June 30, 2023. After reviewing the SBITA principles on these agreements outlined in GASB 96, it was determined that SDRS does not have any agreements that match the lease criteria in this statement. In accordance to paragraph XIII of the statement, these SBITAs are classified as short-term leases per GASB standards; therefore, there are no assets recorded.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the System's Net Pension Liability (Asset) Last 10 Fiscal Years

	2023	2022	2021
Total pension liability			
Service cost	\$ 275,103,735	\$ 260,129,052	\$ 228,793,696
Interest	911,947,973	895,957,242	795,666,742
Changes in benefit terms	—	—	—
Differences between expected and actual experience	199,176,582	209,192,709	30,918,486
Changes of assumptions	(277,074,634)	(418,989,267)	1,134,566,674
Cement Plant consolidation	—	—	—
Department of Labor and Regulation Plan Merger	—	—	44,637,384
Benefit payments, including refunds	(735,080,247)	(696,040,676)	(661,208,044)
Net change in total pension liability	\$ 374,073,409	\$ 250,249,060	\$ 1,573,374,938
Total pension liability—beginning	14,116,619,245	13,866,370,185	12,292,995,247
Total pension liability—ending	<u>\$ 14,490,692,654</u>	<u>\$ 14,116,619,245</u>	<u>\$ 13,866,370,185</u>
Plan fiduciary net position			
Contributions—employer	154,761,704	143,270,826	136,159,432
Contributions—member	153,798,895	143,041,545	136,159,404
Net investment income	806,061,088	(91,538,866)	2,672,026,722
Benefit payments, including refunds	(735,080,247)	(696,040,676)	(661,208,044)
Administrative expense	(5,158,204)	(4,862,000)	(4,905,128)
Cement Plant consolidation	—	—	—
Department of Labor and Regulation Plan Merger	—	—	56,628,426
Net change in plan fiduciary net position	374,383,236	(506,129,171)	2,334,860,812
Plan fiduciary net position—beginning	14,126,069,868	14,632,199,039	12,297,338,227
Plan fiduciary net position—ending	<u>\$ 14,500,453,104</u>	<u>\$ 14,126,069,868</u>	<u>\$ 14,632,199,039</u>
System's net pension liability (asset)—ending	<u>\$ (9,760,450)</u>	<u>\$ (9,450,623)</u>	<u>\$ (765,828,854)</u>

Schedule of System's Net Pension Liability (Asset) Last 10 Fiscal Years

	2023	2022	2021
Total pension liability	\$14,490,692,654	\$14,116,619,245	\$13,866,370,185
Plan fiduciary net position	<u>14,500,453,104</u>	<u>14,126,069,868</u>	<u>14,632,199,039</u>
System's net pension liability (asset)	<u>\$ (9,760,450)</u>	<u>\$ (9,450,623)</u>	<u>\$ (765,828,854)</u>
Plan fiduciary net position as a percentage of the total pension liability	100.07%	100.07%	105.52%
Actuarial projected covered payroll	\$2,482,638,144	\$2,300,011,798	\$2,186,209,401
System's net pension liability (asset) as a percentage of covered payroll	-0.393%	-0.411%	-35.030%

Schedule of System's Contributions Last 10 Fiscal Years

	2023	2022	2021
Actuarially determined contribution	\$154,761,704	\$143,270,826	\$136,159,432
Contributions in relation to the actuarially determined contribution	<u>154,761,704</u>	<u>143,270,826</u>	<u>136,159,432</u>
Contribution deficiency (excess)	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>
Reported covered payroll	\$2,482,638,144	\$2,300,011,798	\$2,186,209,401
Contributions as a percentage of covered payroll	6.234%	6.229%	6.228%

Schedule of Investment Returns Last 10 Fiscal Years

	2023	2022	2021
Annual money-weighted rate or return, net of investment expenses	5.80%	-0.64%	22.01%
Annual time-weighted rate or return, net of investment expenses	5.84%	-0.69%	22.03%

These schedules are presented to illustrate the requirement to show information for 10 years.

See Notes to Required Supplementary Information.

2020	2019	2018	2017	2016	2015	2014
\$ 237,264,711	\$ 233,802,396	\$ 222,709,592	\$ 192,682,191	\$ 184,923,317	\$ 179,349,820	\$ 161,697,696
805,447,155	791,288,656	752,702,794	781,413,919	745,774,586	712,632,857	633,951,211
2,246,202	—	—	(567,079,980)	—	—	(5,082,771)
6,447,338	(6,190,846)	5,220,615	97,593,700	78,645,840	55,821,847	78,328,269
(594,816,177)	(193,660,111)	181,931,669	820,191,401	—	—	604,281,184
—	—	—	—	—	—	60,649,185
(625,796,378)	(596,424,723)	(564,141,147)	(541,090,032)	(510,496,482)	(482,494,871)	(450,490,712)
<u>\$ (169,207,149)</u>	<u>\$ 228,815,372</u>	<u>\$ 598,423,523</u>	<u>\$ 783,711,199</u>	<u>\$ 498,847,261</u>	<u>\$ 465,309,653</u>	<u>\$ 1,083,334,062</u>
<u>12,462,202,396</u>	<u>12,233,387,024</u>	<u>11,634,963,501</u>	<u>10,851,252,302</u>	<u>10,352,405,041</u>	<u>9,887,095,388</u>	<u>8,803,761,326</u>
<u>\$ 12,292,995,247</u>	<u>\$ 12,462,202,396</u>	<u>\$ 12,233,387,024</u>	<u>\$ 11,634,963,501</u>	<u>\$ 10,851,252,302</u>	<u>\$ 10,352,405,041</u>	<u>\$ 9,887,095,388</u>
131,681,949	127,572,348	124,734,270	121,907,646	114,090,075	109,549,977	104,952,985
131,541,783	127,454,956	124,262,387	122,144,961	114,443,295	110,152,580	106,175,381
192,238,245	583,573,718	911,695,475	1,431,977,414	22,836,265	435,682,659	1,695,543,796
(625,796,378)	(596,424,723)	(564,141,147)	(541,090,032)	(510,496,482)	(482,494,871)	(450,490,712)
(5,127,029)	(5,095,897)	(4,870,334)	(4,363,512)	(3,944,641)	(3,911,222)	(3,853,073)
—	—	—	—	—	—	69,519,407
(175,461,430)	237,080,402	591,680,651	1,130,576,477	(263,071,488)	168,979,123	1,521,847,784
<u>12,472,799,657</u>	<u>12,235,719,255</u>	<u>11,644,038,604</u>	<u>10,513,462,127</u>	<u>10,776,533,615</u>	<u>10,607,554,492</u>	<u>9,085,706,708</u>
<u>\$ 12,297,338,227</u>	<u>\$ 12,472,799,657</u>	<u>\$ 12,235,719,255</u>	<u>\$ 11,644,038,604</u>	<u>\$ 10,513,462,127</u>	<u>\$ 10,776,533,615</u>	<u>\$ 10,607,554,492</u>
<u>\$ (4,342,980)</u>	<u>\$ (10,597,261)</u>	<u>\$ (2,332,231)</u>	<u>\$ (9,075,103)</u>	<u>\$ 337,790,175</u>	<u>\$ (424,128,574)</u>	<u>\$ (720,459,104)</u>

2020	2019	2018	2017	2016	2015	2014
\$12,292,995,247	\$12,462,202,396	\$12,233,387,024	\$11,634,963,501	\$ 10,851,252,302	\$ 10,352,405,041	\$ 9,887,095,388
<u>12,297,338,227</u>	<u>12,472,799,657</u>	<u>12,235,719,255</u>	<u>11,644,038,604</u>	<u>10,513,462,127</u>	<u>10,776,533,615</u>	<u>10,607,554,492</u>
<u>\$ (4,342,980)</u>	<u>\$ (10,597,261)</u>	<u>\$ (2,332,231)</u>	<u>\$ (9,075,103)</u>	<u>\$ 337,790,175</u>	<u>\$ (424,128,574)</u>	<u>\$ (720,459,104)</u>
100.04%	100.09%	100.02%	100.08%	96.89%	104.10%	107.29%
\$2,115,630,733	\$2,048,204,895	\$2,001,885,527	\$1,954,735,217	\$1,829,641,099	\$1,758,315,755	\$1,685,627,785
-0.205%	-0.517%	-0.117%	-0.464%	18.462%	-24.121%	-42.741%

2020	2019	2018	2017	2016	2015	2014
\$131,681,949	\$127,572,348	\$124,734,270	\$121,907,646	\$114,090,075	\$109,549,977	\$103,483,647
<u>131,681,949</u>	<u>127,572,348</u>	<u>124,734,270</u>	<u>121,907,646</u>	<u>114,090,075</u>	<u>109,549,977</u>	<u>104,952,985</u>
<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ (1,469,338)</u>
\$2,115,630,733	\$2,048,204,895	\$2,001,885,527	\$1,954,735,217	\$1,829,641,099	\$1,758,315,755	\$1,685,627,785
6.224%	6.228%	6.231%	6.237%	6.236%	6.230%	6.226%

2020	2019	2018	2017	2016	2015	2014
1.56%	4.84%	7.95%	13.84%	0.21%	4.17%	18.91%
1.59%	4.88%	7.94%	13.81%	0.30%	4.18%	18.90%

Notes to
Trend Data

Methods and assumptions used in calculations of actuarially determined contributions. The actuarially determined contribution rates in the schedule of System’s contributions are calculated as of July 1, one year prior to the end of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule:

Actuarial Assumptions—The total pension liability was determined by an actuarial valuation as of June 30, 2023, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Salary Increases	Graded by years of service from 7.66% at entry to 3.15% after 25 years of service
Discount Rate	6.50%, net of pension plan investment expenses
Future COLAs	1.91%

All mortality rates were based on Pub-2010 amount-weighted mortality tables, projected generationally with improvement Scale MP-2020.

Active and Terminated Vested Members are as follows:
Teachers, Certified Regents, and Judicial: PubT-2010
Other Class A Members: PubG-2010
Public Safety Members: PubS-2010

Retired Members are as follows:
Teacher, Certified Regents, and Judicial Retirees: PubT-2010, 108% of rates above age 65
Other Class A Retirees: PubG-2010, 93% of rates through age 74, increasing by 2% per year until 111% of rates at age 83 and above
Public Safety Retirees: PubS-2010, 102% of rates at all ages

Beneficiaries are as follows:
PubG-2010 contingent survivor mortality table

Disabled Members are as follows:
Public Safety: PubS-2010 disabled member mortality table
Others: PubG-2010 disabled member mortality table

The actuarial assumptions used in the June 30, 2023 actuarial valuation were adopted by the SDRS Board of Trustees based on the results of an actuarial experience study for the period from July 1, 2016, to June 30, 2021.

OTHER SUPPLEMENTARY INFORMATION

Personal services	Accrual Basis
Salary and per diem	\$2,436,830
Employee benefits	643,186
Total personal services	3,080,016
Operating expenses	
Travel	62,145
Contractual services:	
Audit	140,700
Valuations	80,800
Consulting	82,440
Legal	15,800
Operations	1,035,625
Total contractual services	1,355,365
Supplies and materials	327,482
Capital assets	333,196
Total operating expenses	2,078,188
 Total administrative expenses	 <u>\$5,158,204</u>

Schedule of Administrative Expenses Year Ended June 30, 2023

Investment category	
Fixed Income	\$13,780,133
Equity	399,612
Real Estate	29,930,520
Private Equity	19,357,530
 Total investment activity expenses	 <u>\$63,467,795</u>

Schedule of Investment Activity Expenses Year Ended June 30, 2023

Investment Management Fees	\$49,687,662
Actuarial	158,537
Audit	140,700
Legal	11,099
 Total paid to consultants	 <u>\$49,997,998</u>

Schedule of Payments to Consultants Year Ended June 30, 2023



Independent Auditor’s Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards

To the Board of Trustees
South Dakota Retirement System
Pierre, South Dakota

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the South Dakota Retirement System (SDRS), as of and for the year ended June 30, 2023, and the related notes to the financial statements, and have issued our report thereon dated October 27, 2023.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered SDRS’s internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of SDRS’s internal control. Accordingly, we do not express an opinion on the effectiveness of the SDRS’s internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. *A material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity’s financial statements will not be prevented, or detected and corrected on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that have not been identified.

What inspires you, inspires us. | eidebailly.com

877 W. Main St., Ste. 800 | Boise, ID 83702-5858 | T 208.344.7150 | F 208.344.7435 | EOE

.....

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether SDRS’s financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity’s internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity’s internal control and compliance. Accordingly, this communication is not suitable for any other purpose.



Boise, Idaho
October 27, 2023



ACTUARIAL SUMMARY

- Actuary's Opinion**
- Actuarial Overview**
- Actuarial Valuation**
 - Solvency Test
- Schedule of Active Member Valuation Data
- Schedule of Retirees and Beneficiaries Added to
and Removed from Benefit Payroll
- Comparison of Actuarial Valuation Results
- Plan Summary**



222 East Capitol Avenue, Suite 8 • PO Box 1098 • Pierre, SD 57501
Toll-Free (888) 605-SDRS • Phone (605) 773-3731
Fax (605) 773-3949 • www.sd.gov/sdrs

October 25, 2023

Board of Trustees
South Dakota Retirement System
Post Office Box 1098
Pierre, SD 57501-1098

Dear Trustees:

I am pleased to submit the results of the annual Actuarial Valuation of the South Dakota Retirement System (SDRS), prepared as of June 30, 2023.

The purposes of this report are to:

- Determine if the funded status of SDRS is at least 100% assuming future COLAs are equal to the baseline COLA assumption of 2.25% and if not, to determine the restricted maximum COLA that results in a funded status of 100%
- Determine the 2024 SDRS COLA as defined in South Dakota Codified Law (SDCL)
- Determine the funded status of SDRS as of June 30, 2023
- Confirm that the fixed, statutory Member and Employer contributions are the Actuarially Determined Contributions (ADC)
- Determine if corrective action recommendations are required to be made to the Retirement Laws Committee in accordance with SDCL 3-12C-228
- Provide accounting information under Governmental Accounting Standards Board Statements No. 67 and 68 (GASB 67 and 68)
- Identify, assess, and disclose risks to future SDRS funding.

This Actuarial Valuation is based on financial and member data provided by SDRS staff and summarized in this report. The actuary did not audit the data submitted but did perform tests for consistency and reasonableness.

All members of SDRS and all benefits in effect on June 30, 2023 have been considered in this Actuarial Valuation. SDRS benefit provisions, member data, and trust information are summarized in the sections that follow. No adjustments for events after the June 30, 2023 measurement date have been included.

The actuarial assumptions and methods used in this valuation meet the parameters set by the Actuarial Standards of Practice maintained by the Actuarial Standards Board for assessing the funded status of SDRS. The assumptions and methods used to determine the ADC as outlined in this report and all supporting schedules meet the parameters and requirements for disclosure of GASB 67. All SDRS benefits are included in the determination of the ADC that is developed using the Entry Age actuarial cost method. The Actuarial Value of Assets is equal to the Fair Value of Assets. The undersigned believes the assumptions are, individually and in the aggregate, reasonably related to experience and to expectations of future experience.

SDRS's Funding Policy establishes funding objectives necessary for the management of SDRS based on fixed, statutory member and employer contributions. The Funding Policy objectives include:

- Fair Value Funded Ratio (FVFR) of at least 100 percent
- A fully funded System based on the Fair Value of Assets and the Entry Age Normal Cost method
- Actuarially determined benefits that are supported by the fixed, statutory member and employer contributions

The results of this valuation indicate that as of June 30, 2023, SDRS continues to be a very well-funded system with a Fair Value Funded Ratio of 100.1 percent. The actuarially determined benefits are supported by the fixed, statutory member and employer contributions. All objectives are met as of June 30, 2023.

The SDRS Board of Trustees' Funding and System Management Policies are attached in Section 12 of the actuarial valuation report.

A valuation model was used to develop the liabilities for this actuarial valuation. The model relies on ProVal actuarial valuation software, which was leased from Winklevoss Technologies, LLC, to calculate liabilities and projected benefits. The undersigned actuary coded and reviewed the software for the SDRS provisions, assumptions, methods, and data and has relied on the ProVal programming. In the professional judgement of this actuary, the ProVal programming has the capability to provide results that are consistent with the purposes of the actuarial valuation and has no material limitations or known weaknesses. Detailed sample life calculations are analyzed to ensure that the ProVal reasonably models the intended liability calculations.

In addition, the projections included in Section 5 of the actuarial valuation report were developed using a spreadsheet-based projection model to determine the impact of a range of potential investment returns on SDRS funding and assessing progress towards SDRS' funding objectives. To determine the likelihoods of meeting specific funding thresholds reported in Section 5 of the actuarial valuation report, the actuary has relied on estimated investment portfolio statistics determined by staff of the South Dakota Investment Council. The projection model excludes the effect of future demographic gains and losses.

Future actuarial results may differ significantly from current measurements presented in this report due to such factors as plan experience differing from that anticipated by the economic and demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed. Assessment of certain risks to future funding measurements is included in Section 5 of the actuarial valuation report.

The results herein are appropriate for evaluating the ability of accumulated assets and future contributions to fund SDRS benefits but make no assessment regarding the funded status of the System if the System were to settle (i.e., purchase annuities) for a portion or all of its liabilities. In various places in this report, Funded Ratios and liabilities are shown based upon varying sets of assumptions as is required for certain disclosure information per accounting rules, Actuarial Standards of Practice, or South Dakota Law. Where this has been done it has been clearly indicated.

The undersigned is an Enrolled Actuary, an Associate of the Society of Actuaries, a Member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. He is an employee of SDRS and is available to answer any questions on the material contained in the report or to provide explanations or further details as may be appropriate.

.....

This report has been prepared in accordance with all applicable Actuarial Standards of Practice. The undersigned believes all actuarial assumptions and methods used to develop the following results were reasonable and appropriate.

The undersigned actuary prepared the following schedules included in the Actuarial Section of the Annual Comprehensive Financial Report:

- Measures of Actuarial Soundness
- Summary of Key Actuarial Measures
- Actuarial Liability Gains and Losses
- Actuarial Assumption Tables
- Summary of Funded Ratios and Funding Periods
- Summary of Actuarial Accrued Liability and Unfunded Actuarial Accrued Liability
- Solvency Test
- Schedule of Active Member Valuation Data
- Schedule of Retirees and Beneficiaries Added to and Removed from Benefit Payroll
- Comparison of Actuarial Valuation Results

Respectfully submitted,



Douglas J. Fiddler, ASA, EA, MAAA, FCA
Senior Actuary
South Dakota Retirement System

Note: Use of this report for any other purposes or by anyone other than the Board of Trustees and SDRS staff may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions or methods or the inapplicability of this report for other purposes. The attached pages should not be provided without a copy of this cover letter. Because of the risk of misinterpretation of actuarial results, you should ask the report's author to review any statement you wish to make on the results contained in this report.



Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

November 17, 2023

Board of Trustees
South Dakota Retirement System
Post Office Box 1098
Pierre, SD 57501-1098

Dear Board of Trustees:

At your request, Cavanaugh Macdonald Consulting, LLC has performed a limited scope actuarial audit of the June 30, 2023 actuarial valuation for the South Dakota Retirement System. This audit is limited to an examination of the internal staff actuary's actuarial assumptions, funding methods, and procedures for reasonableness, internal consistency, and consistency with the previous year's actuarial valuation and a review of the internal staff actuary's valuation report for compliance with actuarial standards. The limited scope review does not include any actuarial calculations. In the first half of 2022, we reviewed and provided our opinion on the findings and recommendations in the quinquennial Experience Analysis performed and presented to the Board. The results of the demographic assumptions analysis were presented at the April 5, 2022 Board meeting and the results of the economic assumptions analysis were presented at the June 1, 2022 meeting. As a result of the Experience Analysis, several changes to the set of actuarial assumptions were adopted by the Board, and were first reflected in the June 30, 2022 valuation. We performed a Full Replication Actuarial Audit of the June 30, 2022 Actuarial Valuation to confirm the assumptions and methods were implemented appropriately, which they were. Our report dated November 9, 2022 contains our review, which we presented at the December 1, 2022 Board meeting. We anticipate that the next Full Replication Audit will be performed on the June 30, 2027 actuarial valuation, with Limited Scope Audits such as this performed on intervening actuarial valuations.

Our analysis of the actuarial assumptions and methods was based largely on the most recent experience study covering the time period from July 1, 2016 through June 30, 2021 and implemented effective with the June 30, 2022 actuarial valuation. We would like to thank Doug Fiddler, the SDRS Senior Actuary, for his cooperation and assistance in providing the required information to us in a timely manner.

3802 Raynor Pkwy, Suite 202, Bellevue, NE 68123
Phone (402) 905-4461 • Fax (402) 905-4464
www.CavMacConsulting.com
Offices in Kennesaw, GA • Bellevue, NE

Board of Trustees
November 17, 2023
Page 2



We find the actuarial assumptions, methods and procedures in the June 30, 2023 actuarial valuation to be reasonable and developed in accordance with applicable Actuarial Standards of Practice. They are consistent with those used in the prior valuation. The valuation report also complies with applicable Actuarial Standards Board.

If you need anything else, please do not hesitate to give us a call. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Sincerely,

A handwritten signature in blue ink, appearing to read 'LL'.

Larry Langer, ASA, EA, FCA, MAAA
Principal and Consulting Actuary

A handwritten signature in blue ink, appearing to read 'Patrice Beckham'.

Patrice A. Beckham, FSA, EA, FCA, MAAA
Consulting Actuary

A handwritten signature in blue ink, appearing to read 'Aaron Chochon'.

Aaron Chochon, ASA, EA, FCA, MAAA
Senior Actuary

ACTUARIAL OVERVIEW

Purpose of the Actuarial Valuation

The Actuarial Valuation is a snapshot of the funded position of SDRS, performed each June 30 for the following purposes:

- To determine:
 - if the funded status is at least 100 percent assuming future COLAs are equal to the baseline COLA assumption of 2.25 percent, and
 - if it is less than 100 percent, the restricted maximum COLA that results in a funded status of 100 percent assuming future COLAs are equal to the restricted maximum;
- To set the COLA paid at the beginning of the following fiscal year based on the rate of inflation for the prior year and the funded status determinations;
- To review the current funded status of SDRS;
- To disclose the System assets and liability measures as of the valuation date;
- To confirm the fixed, statutory member and employer contributions are the Actuarially Determined Contributions
- To determine if a recommendation for corrective actions is required to be made to the Retirement Laws Committee, in accordance with statutory requirements;
- To compare actual and expected experience under SDRS during the most recent fiscal year;
- To disclose the accounting measures as required by GASB Statement Nos. 67 and 68 as of the end of the fiscal year;
- To report trends in contributions, assets, liabilities and funded status;
- To identify, assess, and disclose risks to future SDRS funding.

This June 30, 2023 Actuarial Valuation is the thirty-eighth Actuarial Valuation of SDRS since consolidation in 1974. It is based on the statutory plan provisions as amended through the 2023 Legislative Session and membership, assets, and actuarial assumptions as of the valuation date.

Actuarial Accrued Liability

The Actuarial Accrued Liability (AAL) is equal to the Present Value of All Benefits less the Present Value of Future Normal Costs. It is the portion of the Present Value of All Benefits assigned to prior periods by the Entry Age Normal Cost Method.

Funded Ratio

Two measurements of the funded ratio are calculated each year. The actuarial value funded ratio (AVFR) is equal to the actuarial value of assets divided by the AAL. The fair value funded ratio (FVFR) is equal to the fair value of assets divided by the AAL. A ratio in excess of 100 percent indicates that the AAL is fully funded. Effective June 30, 2017, the actuarial value of assets is equal to the fair value of assets. As a result, the AVFR will be equal to the FVFR.

Funding Period

The funding period measures the length of time required to amortize unfunded actuarial accrued liabilities as well as pay the on-going normal costs, interest charges and expenses with the current contributions. The shorter the funding period, the more favorable the actuarial measure. In accordance with the Board of Trustees' funding policy objectives, the unfunded actuarial accrued liability has been \$0 since June 30, 2013, and no funding period is applicable.

The June 30, 2023 Actuarial Valuation reflects no changes to the plan provisions or actuarial methods and one change to the actuarial assumptions from the June 30, 2022 Actuarial Valuation as described below.

Changes from Prior Valuation

During the 2023 Legislative Session no significant SDRS benefit changes were made and emergency medical services personnel prospectively became Class B Public Safety Members.

SDRS Benefit Provision Changes

The SDRS COLA equals the percentage increase in the most recent third calendar quarter CPI-W over the prior year, no less than 0 percent and no greater than 3.5 percent. However, if the FVFR assuming the long-term COLA is equal to the baseline COLA assumption (currently 2.25 percent) is less than 100 percent, the maximum COLA payable will be limited to the increase that if assumed on a long-term basis, results in a FVFR equal to or exceeding 100 percent.

SDRS Actuarial Assumption Changes

As of June 30, 2022, the FVFR assuming the long-term COLA is equal to the baseline COLA assumption (2.25 percent) was less than 100 percent and the July 2023 SDRS COLA was limited to a restricted maximum of 2.10 percent. For the June 30, 2022 Actuarial Valuation, future COLAs were assumed to equal the restricted maximum COLA assumption of 2.10 percent.

As of June 30, 2023, the FVFR assuming future COLAs equal to the baseline COLA assumption of 2.25 percent is again less than 100 percent and the July 2024 SDRS COLA is limited to a restricted maximum of 1.91 percent. The July 2024 SDRS COLA will equal inflation, between 0 and 1.91 percent. For this June 30, 2023 Actuarial Valuation, future COLAs were assumed to equal the restricted maximum COLA of 1.91 percent.

The changes in the actuarial assumption for future COLAs decreased the Actuarial Accrued Liability by \$277 million, or 1.9 percent of the Actuarial Accrued Liability based on the 2.10 percent prior COLA assumption.

Actuarial assumptions are reviewed for reasonability annually and reviewed in depth periodically, with the next experience analysis anticipated before the June 30, 2027 Actuarial Valuation and any recommended changes approved by the Board of Trustees are anticipated to be first implemented in the June 30, 2027 Actuarial Valuation.

No changes in actuarial methods were made since the prior valuation.

SDRS Actuarial Method Changes

The Board of Trustees' Funding Policy objectives are designed to manage SDRS based on the fixed, statutory member and employer contributions. The objectives include a Fair Value Funded Ratio of at least 100 percent, a fully funded System, and actuarially determined benefits that are variable and are supported by the fixed, statutory contributions. These objectives are currently met as no Unfunded Actuarial Accrued Liability currently exists and the Fair Value Funded Ratio is 100.1 percent as of June 30, 2023.

SDRS Actuarial Valuation Results and Implications of SDRS' Funding Policy

Based on the current Funded Ratios, the SDRS Funding Policy, fixed statutory contribution rates, and future experience matching the actuarial assumptions detailed in this report, the Fair Value Funded Ratio is expected to remain 100 percent or greater and the fixed, statutory contribution rates are expected to remain greater than the Normal Cost and amortization of any Unfunded Actuarial Accrued Liability, if one should arise.

The current restricted maximum COLA of 1.91 percent is expected to remain stable in the absence of unexpected future gains or losses.

Adherence to the SDRS Funding Policy has effectively funded SDRS benefits as is evidenced by the Fair Value Funded Ratio history. The SDRS Funding Policy is consistent with SDRS accumulating adequate assets to make all promised benefit payments.

**Statutory
Determinations:
COLA**

The SDRS COLA equals the percentage increase in the third calendar quarter average CPI-W for the prior year, no less than 0 percent and no greater than 3.5 percent. However, if the Fair Value Funded Ratio (FVFR) assuming the long-term COLA is equal to the baseline COLA assumption (currently 2.25 percent) is less than 100 percent, the maximum COLA payable will be limited to the increase that if assumed on a long-term basis, results in a FVFR equal to or exceeding 100 percent. The 2022 increase in the CPI-W of 8.75 percent was greater than the 2022 maximum COLA of 2.10 percent; therefore, monthly benefits were increased by 2.10 percent effective with the July 2023 payment. The 2023 increase in the CPI-W of 3.20 percent is greater than the 2023 maximum COLA of 1.91 percent; therefore, monthly benefits will be increased by the 1.91 percent effective with the July 2024 payment.

**Statutory
Determinations:
Satisfying
Conditions of SDCL
3-12C-228**

SDCL 3-12C-228 requires that the SDRS Board of Trustees recommend corrective actions to the Retirement Laws Committee if either of two conditions is not satisfied. The two conditions are a Fair Value Funded Ratio (FVFR) of at least 100 percent and fixed, statutory contributions sufficient to fund the minimum SDCL 3-12C-228 requirements. Both conditions are satisfied as of June 30, 2022, and as of June 30, 2023, and no corrective action recommendation is required.

**Actuarial
Soundness**

The determination of the affordable COLA, the funded status, and the adequacy of the statutory contributions to SDRS are the most important indicators of the long-term actuarial soundness of SDRS. The soundness is measured by:

- The maximum SDRS COLA payable the following July 1 and assumed for future years
- The Fair Value Funded Ratio
- The adequacy of the total fixed, statutory contributions available

As of the June 30, 2023 valuation date, the restricted maximum COLA is 1.91 percent, the Fair Value Funded Status is 100.1 percent, and the Unfunded Actuarial Accrued Liability remains at \$0.

If future experience meets expectations, the Fair Value Funded Ratio is expected to remain at or above 100 percent and the restricted COLA is expected to remain constant at the current 1.91 percent.

Future events such as adverse investment returns, increases in life expectancies greater than assumed, or other demographic losses may result in the restricted maximum COLA again applying and, if severe enough, may adversely impact the future funded status of SDRS and require corrective action recommendations.

Corrective action recommendations are required if the Fair Value Funded Ratio is less than 100 percent. That condition does not exist currently. If it exists in the future, SDRS is expected to have Unfunded Actuarial Accrued Liabilities unless future System experience is more favorable than assumed or until legislation is enacted to meet the requirements of SDCL 3-12C-228.

The combination of actuarial assumptions and methods used in the Actuarial Valuation, the actual experience of the System, and the actuarial measures determined in this report all indicate a continuing sound System.

Measures of Actuarial Soundness

	2023 actuarial valuation	2022 actuarial valuation
Assumed Future COLAs	1.91%	2.10%
Actuarial value funded ratio (actuarial value of assets/AAL)	100.1%	100.1%
Fair value funded ratio (fair value of assets/AAL)	100.1%	100.1%
Funding period	N/A	N/A

Summary of Key Actuarial Measures

	2022 actuarial valuation results	System investment and liability experience for year ¹	Membership changes and maturity of system ²	Changes in benefit provisions, actuarial methods or actuarial assumptions effective July 1, 2022	2023 actuarial valuation results
Normal cost rate with expense provision	12.095%	—	(0.078%)	(0.257%)³	11.760%
Funding period	N/A	—	—	—	N/A
Unfunded actuarial accrued liability	\$0	\$267M	—	(\$267M)	\$0
Actuarial value funded ratio	100.1%³	(1.9%)	—	1.9%³	100.1%³
Fair value funded ratio	100.1%³	(1.9%)	—	1.9%³	100.1%³

¹ SDRS actuarial investment and liability gains and losses impact the actuarial and fair value funded ratios immediately.

² Changes to the membership from year to year will cause minor changes in the normal cost rate.

³ In years when a restricted maximum COLA applies, changes to the assumed future SDRS COLA that correspond to actuarial investment and liability experience will drive changes in the funded ratios and the normal cost rate.

**Actuarial
Investment Return
Gains/Losses
For the year ended
June 30, 2023**

The time-weighted annualized investment performance based on the fair value of assets of the system for the most recent year was 5.84 percent after consideration of investment expenses. The money-weighted annualized investment performance based on the fair value of assets for the period was 5.80 percent after deducting investment expenses, less than the assumed rate of 6.50 percent for fiscal year 2023. This resulted in an actuarial investment loss of \$98 million.

**Actuarial Liability
Gains/Losses
For the year ended
June 30, 2023**

	Amount of liability gain (loss)	Percentage of actuarial accrued liability
(Loss) due to compensation increases	\$(187M)	(1.29%)
Gain due to mortality	4M	0.03%
Gain due to retirements	5M	0.04%
(Loss) due to rehired and new members	(36M)	(0.25%)
Gain due to terminations	10M	0.07%
Miscellaneous Gain	5M	0.03%
Total system (Loss)	\$(199M)	(1.37%)

**Actuarially
Determined
Contributions**

SDRS member and employer contribution rates are fixed in statute and do not change based on experience. The SDRS COLA will vary between 0 percent and 3.5 percent based on inflation and the long-term affordability of the COLA, as indicated by a fair value funded ratio equal to or greater than 100 percent. From 2017 to 2020, the SDRS COLA range was 0.5 percent to 3.5 percent. From 2011 to 2016, the SDRS COLA varied from 2.1 percent to 3.1 percent based on funded status and inflation.

To test the adequacy of the fixed contribution rates, an actuarially determined requirement is calculated based on the minimum annual statutory COLA payable (0 percent) and the maximum annual statutory COLA payable (3.5 percent) as of June 30, 2023. If the SDRS fixed contributions are within that range of actuarially determined requirements, they will support the SDRS benefit structure and reflect the minimum and maximum long-term costs of the system.

The June 30, 2023 actuarial valuation confirms that the actuarially determined contribution rate will be 100 percent of the statutory contribution rate for fiscal years 2023 and 2024.

The actuarially determined contribution rate described above meets the requirements for reasonable actuarially determined contributions in Actuarial Standards of Practice No.4, Section 3.21.

The reasonable actuarially determined contribution corresponds to the Fair Value Funded Ratio (FVFR) of 100.1 percent. In addition to the actuarial methods and assumptions detailed in this report, the SDRS fixed contributions are determined to be the reasonable actuarially determined contribution if they are between the actuarially determined contribution if the minimum SDRS COLA is payable and the actuarially determined contribution if the maximum SDRS COLA is payable.

.....

This procedure ensures SDRS benefits, including current and projected future SDRS COLAs, remain sustainably funded, limiting the COLAs to those that can be afforded for the lifetimes of all current SDRS members considering current assets and liabilities and the fixed, statutory member and employer contributions. The procedure maximizes the long-term benefits that can be sustainably funded with the fixed, statutory contributions, balancing benefit security and intergenerational equity with the statutory requirement of fixed contributions. The procedure will keep the FVFR at 100 percent or above, unless and until a severe or prolonged economic downturn causes a FVFR less than 100 percent with no affordable SDRS COLA. Such a condition would require the SDRS Board of Trustees to make a recommendation for a corrective action.

Actuarial Cost Method

Liabilities and contributions shown in this report are computed using the Entry Age Actuarial Cost Method.

Sometimes called a “funding method,” this is a particular technique used by actuaries for establishing the amount and incidence of the annual actuarial cost of pension plan benefits, or Normal Cost, and the related unfunded actuarial accrued liability. The annual contribution requirement to the plan is comprised of (1) the Normal Cost and (2) an amortization payment on the Unfunded Actuarial Accrued Liability (if one exists).

Under the Entry Age Actuarial Cost Method, the Normal Cost is computed as the percentage of pay which, if paid from the date of the member’s entry into the system to each member’s assumed retirement or termination, would accumulate with interest at the assumed rate of investment return to a fund sufficient to pay all benefits under the plan.

For inactive members, the Actuarial Accrued Liability is the Present Value of All Benefits. For active members, the Actuarial Accrued Liability is the Present Value of All Benefits less the Present Value of Future Normal Costs. Normal Cost and Present Value of Future Normal Cost for active members is determined considering only the ongoing benefit formula, disregarding the historical benefit improvements for periods of past service which are thereby included in the Actuarial Accrued Liability.

The aggregate Normal Cost Rate for SDRS is determined by taking aggregate present value of future Normal Costs for the membership group and dividing this result by the aggregate Present Value of Total Projected Payroll of members before assumed retirement age. The Normal Cost Rate is then adjusted by a half-year’s interest and multiplied by the total payroll for active members before assumed retirement to determine the Normal Cost. This procedure is performed for the group as a whole, not as the sum of individual Normal Cost calculations.

For the determination of the Actuarial Accrued Liability, Normal Cost, Actuarially Determined Contributions, and the statutory determination of the COLA and SDCL 3-12C-228 requirements, the liability for former Cement Plant Retirement Plan Members is calculated as the Present Value of their frozen accrued benefits and Normal Cost is calculated for the remaining active members.

For purposes of GASB 67 and 68, the Normal Cost for SDRS is the sum of individual Normal Cost calculations and will therefore vary minimally from the

.....

**Asset Valuation
Method**

Normal Cost calculated for other purposes. In addition, the Total Pension Liability and Service Cost for former Cement Plant Retirement Plan members is calculated using the Individual Entry Age Actuarial Cost Method.

The Unfunded Actuarial Accrued Liability is the excess, if any, of the Actuarial Accrued Liability over the Actuarial Value of Assets as of the valuation date.

The Actuarial Value of Assets is equal to the Fair Value of Assets.

**Contribution
Allocation
Procedure**

The Actuarially Determined Contribution is equal to the fixed, statutory contributions if the fixed, statutory contributions are greater than the Normal Cost, system administrative expenses and an amortization of the Unfunded Actuarial Accrued Liability (if any) over a period not to exceed 20 years assuming the minimum SDRS COLA and do not exceed the same measure assuming future COLAs are equal to the maximum SDRS COLA.

**Valuation
Procedures**

No actuarial liability is included for non-vested members who terminated prior to the valuation date, except those due a refund of Accumulated Contributions.

The compensation amounts used in the projection of benefits and liabilities were annualized, prior-year compensation amounts projected with assumed salary increases to the valuation year.

In computing accrued retirement benefits, Final Average Compensation was determined using actual compensation histories supplied by SDRS staff.

For active and vested terminated members, the spouse age difference assumption was used to populate beneficiaries' dates of birth.

Termination and retirement benefits were limited to the dollar limitation required by the Internal Revenue Code Section 415 limits for governmental plans but unreduced for early commencement if members retire before age 62 and actuarially increased for late retirement up to age 70 if members retire after age 65.

Compensation was limited to the dollar amount defined under Internal Revenue Code Section 401(a)(17) for affected members.

Decrements are assumed to occur mid-year.

**Actuarial
Assumptions**

Significant actuarial assumptions used include: a) a discount rate equal to the expected rate of return on the present and future assets of 6.5 percent a year, compounded; b) projected Social Security cost-of-living increases of 2.50 percent and wage inflation of 3.15 percent per year compounded annually; c) pre-retirement and post-retirement cost of living adjustment (COLA) increases of 1.91 percent per year compounded annually; d) active member salary increases that are graded by years of service, from 7.66 percent per year at entry to 3.15 percent per year after 25 years of service, compounded annually; e) 80 percent of non-retired members are assumed to be married; f) male members are assumed to be two years older than their spouses and female members are

.....

assumed to be two years younger than their spouses; g) mortality rates are based upon Pub-2010 amount-weighted mortality tables using the PubT tables for teachers, certified regental employees, and judicial members, the PubG table for other Class A members, and the PubS table for public safety members, all projected generationally with MP-2020; Mortality tables for retirees are adjusted based on credible experience as follows: for teachers, certified regental employees and judicial retirees, 108 percent of PubT rates after age 65, for other Class A retirees, Class C retirees, and Class D retirees, 93 percent of PubG rates through age 74, with the adjustment increasing 2 percent each year until 111 percent of rates at age 83 and above, and for public safety retirees 102 percent of PubS rates; h) mortality rates for disabled public safety pensioners are based upon the PubS-2010 amount-weighted Disabled Mortality Table, mortality rates for other disabled members are based upon the PubG-2010 amount-weighted Disabled Mortality Table, projected generationally with MP-2020; i) at termination of employment, members will elect either a refund of accumulated contributions or the deferred vested benefit payable at retirement according to a percent in an experience based table that decreases as service increases; and j) terminated vested members are assumed to start receipt of benefits three years prior to normal retirement, except for Class A members with twenty or more years of service who are assumed to start receipt of benefits at age 58 and Public Safety members with fifteen or more years of service are assumed to start receipt at age 48.

The SDRS COLA is based on the percentage increase in the third calendar quarter CPI-W for the prior year, not less than 0 percent and not greater than 3.5 percent. In addition, the COLA will be limited to a restricted maximum COLA under certain circumstances. The SDRS COLA effective July 1, 2023, was 2.10 percent.

The baseline COLA assumption is 2.25 percent. If the fair value funded ratio (FVFR) assuming future COLAs are equal to the baseline COLA assumption is less than 100 percent, a restricted maximum COLA is calculated such that, if future COLAs are equal to the restricted maximum COLA, the FVFR is equal to 100 percent.

For each actuarial valuation, future COLAs are assumed to equal the baseline COLA assumption if the FVFR assuming future COLAs are equal to the baseline COLA is at least 100 percent and future COLAs are assumed to equal the restricted maximum COLA otherwise. Based on the results of this June 30, 2023 Actuarial Valuation, the 2024 COLA will be equal to the restricted maximum SDRS COLA of 1.91 percent since the increase in the third calendar quarter CPI-W for the 2023 of 3.20 percent is greater than the restricted maximum SDRS COLA of 1.91 percent. The Actuarial Accrued Liabilities and Normal Costs reported in this Actuarial Valuation are calculated assuming future COLAs are equal to the baseline COLA assumption of 1.91 percent.

A detailed experience analysis covering the period from June 30, 2016, to June 30, 2021, was conducted and appropriate modifications in the economic and demographic assumptions were made effective with the June 30, 2022 actuarial valuation.

The actuarial assumptions were recommended by the actuary and adopted by the SDRS Board of Trustees. Please see pages 58-62 for tables of actuarial assumption rates.

The actuarial assumptions for funding purposes are identical to the assumptions used for financial reporting purposes.

• ~~Effective with the June 30, 2017 actuarial valuation, the actuarial value of assets~~

**Actuarial
Assumption Tables**

Sample Separation Rates

Assumed Mortality Rates⁽¹⁾						
Active and Terminated Vested Members - Annual Rate per 100 Members, Rates as of 2023						
	Teachers, Certified Regents, and Judicial Members		Other Class A Members All Class C and D Members		Public Safety Members	
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
25	0.0194	0.0113	0.0340	0.0113	0.0450	0.0252
30	0.0318	0.0199	0.0520	0.0213	0.0592	0.0384
35	0.0461	0.0285	0.0722	0.0328	0.0722	0.0514
40	0.0568	0.0374	0.0892	0.0435	0.0797	0.0592
45	0.0720	0.0474	0.1053	0.0553	0.0881	0.0662
50	0.1045	0.0680	0.1403	0.0773	0.1130	0.0847
55	0.1647	0.1081	0.2097	0.1243	0.1676	0.1243
60	0.2713	0.1687	0.3278	0.1949	0.2713	0.1760
65	0.4385	0.2585	0.4717	0.2834	0.4133	0.2183
Retired Members - Annual Rate per 100 Members, Rates as of 2023						
	Teachers, Certified Regents, And Judicial Members		Other Class A Members All Class C and D Members		Public Safety Members	
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
45	0.0720	0.0474	0.0979	0.0515	0.1337	0.0877
50	0.1045	0.0680	0.2610	0.1923	0.1844	0.1415
55	0.2135	0.1950	0.3838	0.2688	0.2989	0.2659
60	0.3669	0.3007	0.5878	0.3741	0.5325	0.4766
65	0.6445	0.4612	0.8559	0.5459	0.9058	0.7520
70	1.0740	0.7350	1.3190	0.8737	1.4864	1.1980
75	1.9598	1.3977	2.2672	1.5846	2.5754	2.0735
80	3.7326	2.7980	4.5049	3.2435	4.6744	3.7153
85	7.1852	5.5053	8.7676	6.5187	8.5669	6.6051
90	13.4224	10.4364	15.2642	12.2127	15.1623	11.5429
95	22.6263	18.6061	23.8530	19.9684	22.8383	18.4780
Beneficiaries and Disabled Members - Annual Rate per 100 Members, Rates as of 2023						
	Beneficiaries		Disabled Public Safety Members		Other Disabled Members	
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
45	0.5899	0.2588	0.2600	0.2203	1.0820	0.9730
50	0.6602	0.2980	0.3324	0.2831	1.5115	1.3811
55	0.7891	0.4507	0.4597	0.4658	2.0244	1.7603
60	1.0400	0.6517	0.7554	0.7324	2.5723	2.0494
65	1.3951	0.8608	1.1955	1.0159	3.0684	2.1601
70	1.9787	1.1958	1.7724	1.4229	3.6256	2.5294
75	3.0217	1.9053	2.8957	2.1640	4.6389	3.5458
80	4.8167	3.2848	5.0305	3.6424	6.6032	5.5225
85	8.0385	5.9777	8.4706	6.4756	9.9436	8.8313
90	13.5135	10.8511	14.8650	11.3165	15.2334	13.0885
95	21.4066	17.7650	22.3905	18.1157	22.1736	18.4415

⁽¹⁾ Five percent of deaths within the first three years of employment are assumed to be job-related.

Assumed Disability Rates⁽¹⁾

Annual Rate per 100 Members					
	Class A Low Incidence Groups ⁽²⁾		Class A Higher Incidence Groups ⁽³⁾		Class B Public Safety Members
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male and Female</u>
25	0.0043	0.0078	0.0135	0.0068	0.0123
30	0.0048	0.0096	0.0135	0.0076	0.0135
35	0.0055	0.0116	0.0300	0.0312	0.0717
40	0.0067	0.0140	0.0300	0.0520	0.1648
45	0.0110	0.0257	0.0460	0.0800	0.3248
50	0.0173	0.0473	0.0666	0.0912	0.3248
55	0.0354	0.0499	0.1400	0.1332	0.3248
60	0.0749	0.0697	0.2184	0.1788	0.5790
65	0.1234	0.0905	0.3024	0.2268	1.0065

⁽¹⁾ No disability is assumed for Class B Judicial Members. Five percent of disabilities within the first three years of employment are assumed to be job-related disabilities.

⁽²⁾ Includes teachers and certified regents

⁽³⁾ Includes non-certified regents, state employees, city employees, non-certified school employees, and county employees.

Assumed Termination Rates – First 5 Years of Employment⁽⁴⁾

Annual Rate per 100 Members									
	Teachers		Regents, Non-Certified Schools		State Employees		City, County Employees		Class B Public Safety Members
<u>Credited Service</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male and Female</u>
0	20.00	19.25	23.00	24.00	17.25	24.00	17.00	20.00	22.00
1	14.50	13.25	18.00	19.50	16.00	18.00	14.50	17.25	14.75
2	13.25	12.00	16.00	17.50	13.25	15.75	11.75	13.25	12.75
3	11.25	10.50	14.25	14.75	12.25	13.00	11.50	11.00	10.75
4	9.75	8.50	13.75	12.50	11.25	11.00	9.50	11.00	9.75

Assumed Termination Rates – After 5 Years of Employment⁽⁴⁾

Annual Rate per 100 Members										
	Teachers		Regents, Non-Certified Schools		State Employees		City, County Employees		Class B Public Safety Members	Former CPRP Members
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male and Female</u>	<u>Male and Female</u>
25	7.00	6.50	10.00	10.00	8.50	10.00	7.75	16.50	8.25	5.27
30	6.25	5.60	8.95	8.80	7.45	8.50	7.15	11.70	6.90	4.83
35	4.55	4.10	7.50	6.95	5.85	6.45	5.55	6.85	4.80	4.47
40	3.45	3.05	6.40	6.10	4.50	4.85	4.45	5.30	4.00	3.84
45	3.10	2.75	5.70	5.40	3.40	3.80	3.95	5.00	4.00	3.21
50	3.00	2.75	4.60	5.00	3.00	3.50	3.75	4.40	4.00	1.52
55	3.00	2.75	4.00	5.00	3.00	3.50	3.75	4.00	4.00	0.33

⁽⁴⁾ No pre-retirement termination is assumed for Class B Judicial members.

.....

Assumed Retirement Rates, Foundation Members

Annual Rate per 100 Members Eligible to Retire												
	Class A Teachers				Other Class A Members				Class B Judicial Members		Class B Public Safety Members	
	Reduced		Unreduced		Reduced		Unreduced		Reduced	Unreduced	Reduced	Unreduced
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>				
45											4.00	33.00
46											4.75	33.00
47											6.00	33.00
48											12.00	33.00
49											12.00	33.00
50											12.00	20.00
51											16.00	17.50
52											12.00	22.50
53											3.50	18.00
54											16.50	33.00
55	11.00	6.00	19.00	18.00	4.75	5.25	13.00	9.00	12.00	24.00		25.00
56	7.50	7.25	14.00	15.00	4.75	5.25	10.00	9.00	9.00	10.00		17.00
57	7.50	8.50	15.00	12.00	4.75	5.25	10.00	13.00	9.00	10.00		17.00
58	7.50	10.00	15.00	15.00	4.75	5.25	10.00	9.25	9.00	10.00		17.00
59	13.25	10.00	13.25	17.00	4.75	6.50	11.00	9.25	9.00	10.00		17.00
60	13.25	10.00	13.25	15.00	6.25	6.50	11.00	9.25	9.00	10.00		17.00
61	9.25	16.25	32.50	25.00	7.25	8.25	15.00	12.50	9.00	10.00		17.00
62	9.25	14.00	30.00	25.00	9.50	13.00	17.50	13.00	9.00	10.00		30.00
63	9.25	21.00	30.00	25.00	10.00	12.00	12.50	17.50	9.00	10.00		30.00
64	28.50	28.25	40.00	35.00	21.00	21.50	30.00	30.00	15.00	15.00		30.00
65			40.00	45.00			35.00	37.50		15.00		40.00
66			40.00	45.00			30.00	40.00		27.50		40.00
67			32.50	30.00			30.00	25.00		27.50		25.00
68			32.50	30.00			30.00	25.00		27.50		25.00
69			32.50	30.00			30.00	25.00		27.50		50.00
70			32.50	30.00			30.00	25.00		50.00		100.00
71			32.50	30.00			30.00	25.00		100.00		
72			32.50	30.00			30.00	25.00				
73			32.50	30.00			30.00	25.00				
74			32.50	30.00			30.00	25.00				
75			100.00	100.00			30.00	25.00				
76							30.00	25.00				
77-79							30.00	40.00				
80							100.00	100.00				

.....

Assumed Retirement Rates, Generational Members

Annual Rate per 100 Members Eligible to Retire												
	Class A Teachers				Other Class A Members				Class B Judicial Members		Class B Public Safety Members	
	Reduced		Unreduced		Reduced		Unreduced		Reduced	Unreduced	Reduced	Unreduced
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>				
47											6.00	
48											12.00	
49											12.00	
50											12.00	
51											16.00	
52											12.00	
53											3.50	
54											16.50	
55											25.00	
56											25.00	
57	7.50	8.50			4.75	5.25			9.00			35.00
58	7.50	10.00			4.75	5.25			9.00			35.00
59	13.25	10.00			4.75	6.50			9.00			17.00
60	13.25	10.00			6.25	6.50			9.00			17.00
61	9.25	16.25			7.25	8.25			9.00			17.00
62	9.25	14.00			9.50	13.00			9.00			30.00
63	9.25	21.00			10.00	12.00			9.00			30.00
64	28.50	28.25			21.00	21.50			15.00			30.00
65	30.00	35.00			30.00	30.00			25.00			40.00
66	35.00	40.00			30.00	30.00			25.00			40.00
67			40.00	45.00			40.00	40.00		35.00		25.00
68			40.00	45.00			40.00	40.00		35.00		25.00
69			32.50	30.00			30.00	25.00		27.50		50.00
70			32.50	30.00			30.00	25.00		50.00		100.00
71			32.50	30.00			30.00	25.00		100.00		
72-74			32.50	30.00			30.00	25.00				
75			100.00	100.00			30.00	25.00				
77-79							30.00	40.00				
80							100.00	100.00				

Assumed Rates of Salary Increases							
Credited Service	Merit and Seniority	Wage Inflation	Total Increase	Credited Service	Merit and Seniority	Wage Inflation	Total Increase
0	4.3689%	3.15%	7.6565%	15	0.5340%	3.15%	3.7008%
1	3.1068%	3.15%	6.3547%	16	0.4369%	3.15%	3.6007%
2	2.4272%	3.15%	5.6537%	17	0.3883%	3.15%	3.5505%
3	2.0874%	3.15%	5.3032%	18	0.3398%	3.15%	3.5005%
4	1.8447%	3.15%	5.0528%	19	0.2913%	3.15%	3.4505%
5	1.6505%	3.15%	4.8525%	20	0.2427%	3.15%	3.4003%
6	1.5049%	3.15%	4.7023%	21	0.1942%	3.15%	3.3503%
7	1.3592%	3.15%	4.5520%	22	0.1456%	3.15%	3.3002%
8	1.2136%	3.15%	4.4018%	23	0.0971%	3.15%	3.2502%
9	1.1165%	3.15%	4.3017%	24	0.0485%	3.15%	3.2000%
10	0.9709%	3.15%	4.1515%	25	0.0000%	3.15%	3.1500%
11	0.8738%	3.15%	4.0513%	Over 25	0.0000%	3.15%	3.1500%
12	0.7767%	3.15%	3.9512%				
13	0.6796%	3.15%	3.8510%				
14	0.6311%	3.15%	3.8010%				

Percent of Terminated Members Assumed to Elect the Portable Retirement Option					
Credited Service at Termination	Percent Electing Portable Retirement Option	Percent Electing Vested Benefit at Retirement	Credited Service at Termination	Percent Electing Portable Retirement Option	Percent Electing Vested Benefit at Retirement
0	100.0%	0.0%	15	22.5%	77.5%
1	100.0%	0.0%	16	22.5%	77.5%
2	100.0%	0.0%	17	22.5%	77.5%
3	47.5%	52.5%	18	22.5%	77.5%
4	47.5%	52.5%	19	22.5%	77.5%
5	47.5%	52.5%	20	12.5%	87.5%
6	40.0%	60.0%	21	12.5%	87.5%
7	40.0%	60.0%	22	12.5%	87.5%
8	40.0%	60.0%	23	12.5%	87.5%
9	32.5%	67.5%	24	12.5%	87.5%
10	32.5%	67.5%	25	7.5%	92.5%
11	32.5%	67.5%	26	7.5%	92.5%
12	32.5%	67.5%	27	7.5%	92.5%
13	22.5%	77.5%	28	7.5%	92.5%
14	22.5%	77.5%	29	7.5%	92.5%
			30 or More	0.0%	100.0%

ACTUARIAL VALUATION

Effective with the June 30, 2017 actuarial valuation, the actuarial value of assets is equal to the fair value of assets.

SDRS Actuarial Value of Assets As of June 30, 2023

The SDRS Board of Trustees is responsible for maintaining the system's funding policy. The current funding policy includes the funding objectives, the policy regarding consideration of benefit improvements and the conditions requiring recommendation for corrective actions.

Funding Policy

The SDRS long-term benefit goals include:

- Lifetime income from SDRS of at least 50 percent of final average compensation for career members with credited service of at least:
 - 30 years for Class A
 - 25 years for Public Safety
 - 20 years for Judicial
- SDRS will educate members of the need for additional savings and will encourage members to accumulate personal savings of at least 100 percent of annual pay at retirement to provide retirement benefits in addition to those provided by SDRS and Social Security
- Educate, advise, and encourage members to plan for retirement by establishing a total retirement income goal based on their unique circumstances and considering benefits available from SDRS, Social Security, and personal savings
- Provide unreduced benefit at appropriate age considering physical demands of Public Safety employment and increasing life expectancy
- Provide appropriate early retirement opportunities
- Inflation protection after retirement and after termination of employment before benefits begin
- Disability and survivor income protection
- Equitable benefits for short-service members who terminate employment before retirement

Benefit and Funding Objectives and Historical Summary

The maximum SDRS COLA payable, funded ratio and the adequacy of the fixed, statutory contributions are the primary measures of SDRS' soundness.

The SDRS funding objectives are to maintain:

- A fair value funded ratio of at least 100 percent
- A fully funded system, with no unfunded liabilities under the entry age normal cost method
- Actuarially determined benefits that are variable and can be supported by the fixed, statutory contributions

Summary of Funded Ratios and Funding Periods

Valuation date	Actuarial accrued liability	Actuarial value of assets	Fair value of assets	Actuarial value funded ratio	Fair value funded ratio	Funding period
1988	\$1,078,235,569	\$1,050,836,113	\$1,192,526,624	97.5%	110.6%	6 years
1990	1,404,616,511	1,275,091,534	1,417,163,483	90.8	100.8	46 years
1992	1,714,482,245	1,605,481,514	1,783,732,116	93.6	104.0	16 years
1994	2,108,309,129	1,945,856,251	2,179,759,081	92.3	103.4	38 years
1996	2,539,008,893	2,390,236,436	2,909,982,912	94.1	114.6	30 years
1997	2,956,497,152	2,813,304,611	3,516,630,764	95.2	118.9	23 years
1998	3,471,898,003	3,337,293,439	4,171,616,799	96.1	120.2	22 years
1999	3,997,927,795	3,875,171,467	4,717,115,757	96.9	118.0	21 years
2000	4,611,913,087	4,427,102,390	5,156,294,800	96.0	111.8	20 years
2001	4,688,408,562	4,521,403,578	4,939,705,889	96.4	105.4	20 years
2002	4,576,948,810	4,425,392,396	4,624,866,872	96.7	101.0	20 years
2003	4,818,943,695	4,685,890,770	4,784,187,048	97.2	99.3	20 years
2004	5,051,728,157	4,937,493,861	5,518,225,955	97.7	109.2	20 years
2005	5,571,842,384	5,380,999,357	6,159,934,879	96.6	110.6	20 years
2006	5,859,994,198	5,668,535,060	6,844,629,634	96.7	116.8	20 years
2007	6,718,761,091	6,526,534,941	8,158,168,676	97.1	121.4	20 years
2008	6,976,811,927	6,784,291,685	7,312,107,461	97.2	104.8	20 years
2009	7,387,406,340	6,778,520,575	5,648,767,146	91.8	76.5	N/A ¹
2010	7,393,250,948	7,119,874,593	6,496,634,989	96.3	87.9	30 years
2011	7,712,556,672	7,433,776,511	7,936,269,496	96.4	102.9	30 years
2012	8,452,840,068	7,827,601,564	7,842,524,241	92.6	92.8	29 years
2013	8,803,761,326	8,803,761,326	9,085,706,708	100.0	103.2	N/A ²
2014	9,887,095,388	9,887,095,388	10,607,554,492	100.0	107.3	N/A ²
2015	10,352,405,041	10,352,405,041	10,776,533,615	100.0	104.1	N/A ²
2016	10,851,252,302	10,851,252,302	10,513,462,127	100.0	96.9	N/A ²
2017	11,634,963,501	11,644,038,604	11,644,038,604	100.1	100.1	N/A ²
2018	12,233,387,024	12,235,719,255	12,235,719,255	100.0	100.0	N/A ²
2019	12,461,820,956	12,472,799,657	12,472,799,657	100.1	100.1	N/A ²
2020	12,336,269,952	12,353,966,653	12,353,966,653	100.1	100.1	N/A ²
2021	13,865,352,058	14,632,199,039	14,632,199,039	105.5	105.5	N/A ²
2022	14,116,661,375	14,126,069,868	14,126,069,868	100.1	100.1	N/A ²
2023	14,490,723,479	14,500,453,104	14,500,453,104	100.1	100.1	N/A ²

¹Member and employer contributions were not sufficient to amortize the frozen unfunded actuarial accrued liability.

²Unfunded actuarial accrued liability is \$0 as of June 30, 2013 through June 30, 2023.

The schedule below compares total actuarial accrued liabilities to assets at actuarial value and unfunded actuarial accrued liabilities to payroll over time.

The assets to total liabilities ratios show the growth of assets compared to the growth of liabilities. The unfunded liabilities to covered payroll ratios are a measure of the ability of SDRS to meet its long-term obligations.

Level or increasing values for the first ratio and level or declining values for the second ratio are an indication of stable or improving funding.

Summary of Actuarial Accrued Liability and Unfunded Actuarial Accrued Liability

Fiscal year	Actuarial accrued liability	Actuarial value of assets	Actuarial as a % of accrued actuarial liability	Unfunded actuarial accrued liability	Total covered payroll (000,000)	Unfunded liability as a % of payroll
1987-88	\$1,078,235,569	\$1,050,836,113	97.5	\$27,399,456	\$530.0	5.2
1989-90	1,404,616,511	1,275,091,534	90.8	129,524,977	582.7	22.2
1991-92	1,714,482,245	1,605,481,514	93.6	109,000,731	694.3	15.7
1993-94	2,108,309,129	1,945,856,251	92.3	162,452,878	788.6	20.6
1995-96	2,539,008,893	2,390,236,436	94.1	148,772,457	820.1	18.1
1997	2,956,497,152	2,813,304,611	95.2	143,192,541	835.1	17.1
1998	3,471,898,003	3,337,293,439	96.1	134,604,564	875.9	15.4
1999	3,997,927,795	3,875,171,467	96.9	122,756,328	902.5	13.6
2000	4,611,913,087	4,427,102,390	96.0	184,810,697	944.6	19.6
2001	4,688,408,562	4,521,403,578	96.4	167,004,984	1,029.7	16.2
2002	4,576,948,810	4,425,392,396	96.7	151,556,414	1,080.1	14.0
2003	4,818,943,695	4,685,890,770	97.2	133,052,925	1,117.2	11.9
2004	5,051,728,157	4,937,493,861	97.7	114,234,296	1,164.0	9.8
2005	5,571,842,384	5,380,999,357	96.6	190,843,027	1,206.1	15.8
2006	5,859,994,198	5,668,535,060	96.7	191,459,138	1,229.9	15.6
2007	6,718,761,091	6,526,534,941	97.1	192,226,150	1,297.2	14.8
2008	6,976,811,927	6,784,291,685	97.2	192,520,242	1,363.9	14.1
2009	7,387,406,340	6,778,520,575	91.8	608,885,765	1,450.7	42.0
2010	7,393,250,948	7,119,874,593	96.3	273,376,355	1,491.1	18.3
2011	7,712,556,672	7,433,776,511	96.4	278,780,161	1,490.5	18.7
2012	8,452,840,068	7,827,601,564	92.6	625,238,504	1,502.7	41.6
2013	8,803,761,326	8,803,761,326	100.0	0	1,519.7	0.0
2014	9,887,095,388	9,887,095,388	100.0	0	1,587.1	0.0
2015	10,352,405,041	10,352,405,041	100.0	0	1,654.8	0.0
2016	10,851,252,302	10,851,252,302	100.0	0	1,724.4	0.0
2017	11,634,963,501	11,644,038,604	100.1	0	1,849.4	0.0
2018	12,233,387,024	12,235,719,255	100.0	0	1,902.7	0.0
2019	12,461,820,956	12,472,799,657	100.1	0	1,946.7	0.0
2020	12,336,269,952	12,353,966,653	100.1	0	1,994.0	0.0
2021	13,865,352,058	14,632,199,039	105.5	0	2,043.1	0.0
2022	14,116,661,375	14,126,069,868	100.1	0	2,137.7	0.0
2023	14,490,723,479	14,500,453,104	100.1	0	2,320.0	0.0

Solvency Test

The solvency test is a comparison of the adequacy of SDRS actuarial value of assets to the AAL for: 1) active member contributions; 2) benefits for present benefit recipients; and 3) employer-financed active member benefits.

Fiscal year	Actuarial accrued liability for				Portion of actuarial accrued liability covered by actuarial value of assets for		
	(1) Member contributions	(2) Current retirees and beneficiaries and terminated employees	(3) Current employees: employer financed	Actuarial value of assets	(1)	(2)	(3) ¹
1987-88	\$231,163,590	\$397,780,471	\$449,291,508	\$1,050,836,113	100.0	100.0	93.9
1989-90	283,584,495	524,168,024	596,863,992	1,275,091,534	100.0	100.0	78.3
1991-92	350,130,362	685,091,034	679,260,849	1,605,481,514	100.0	100.0	84.0
1993-94	421,403,799	834,896,391	852,008,939	1,945,856,251	100.0	100.0	80.9
1995-96	484,228,278	1,017,938,827	1,036,841,788	2,390,236,436	100.0	100.0	85.7
1997	517,164,580	1,158,342,002	1,280,990,570	2,813,304,611	100.0	100.0	88.8
1998	553,386,759	1,375,461,393	1,543,049,851	3,337,293,439	100.0	100.0	91.3
1999	560,276,444	1,595,941,304	1,841,710,047	3,875,171,467	100.0	100.0	93.3
2000	618,625,484	1,889,571,734	2,103,715,869	4,427,102,390	100.0	100.0	91.2
2001	624,310,539	2,045,346,869	2,018,751,154	4,521,403,578	100.0	100.0	91.7
2002	691,820,949	2,236,330,911	1,648,796,950	4,425,392,396	100.0	100.0	90.8
2003	741,729,358	2,435,411,371	1,641,802,966	4,685,890,770	100.0	100.0	91.9
2004	807,055,387	2,637,073,090	1,607,599,680	4,937,493,861	100.0	100.0	92.9
2005	831,968,303	2,987,636,584	1,752,237,497	5,380,999,357	100.0	100.0	89.1
2006	854,928,129	3,174,042,596	1,831,023,473	5,668,535,060	100.0	100.0	89.5
2007	894,141,271	3,405,374,537	2,419,245,283	6,526,534,941	100.0	100.0	92.1
2008	946,604,328	3,811,968,488	2,218,239,111	6,784,291,685	100.0	100.0	91.3
2009	1,008,833,732	4,041,735,745	2,336,836,863	6,778,520,575	100.0	100.0	73.9
2010	1,042,639,270	4,125,804,303	2,224,807,375	7,119,874,593	100.0	100.0	87.7
2011	1,041,479,674	4,436,638,326	2,234,438,672	7,433,776,511	100.0	100.0	87.5
2012	1,046,798,327	4,909,919,285	2,496,122,456	7,827,601,564	100.0	100.0	75.0
2013	1,053,144,685	5,199,059,332	2,551,557,309	8,803,761,326	100.0	100.0	100.0
2014	1,057,991,944	5,902,266,864	2,926,836,580	9,887,095,388	100.0	100.0	100.0
2015	1,064,011,490	6,250,881,939	3,037,511,612	10,352,405,041	100.0	100.0	100.0
2016	1,078,941,286	6,627,703,346	3,144,607,670	10,851,252,302	100.0	100.0	100.0
2017	1,106,977,216	7,016,162,273	3,511,824,012	11,644,038,604	100.0	100.0	100.0
2018	1,139,798,233	7,436,513,800	3,657,074,991	12,235,719,255	100.0	100.0	100.0
2019	1,166,852,994	7,697,593,396	3,597,374,566	12,472,799,657	100.0	100.0	100.0
2020	1,201,851,866	7,756,098,263	3,378,319,823	12,336,269,952	100.0	100.0	100.0
2021	1,231,438,624	8,767,545,092	3,866,368,342	14,632,199,039	100.0	100.0	100.0
2022	1,245,382,047	8,999,041,699	3,872,237,629	14,116,661,375	100.0	100.0	100.0
2023	1,279,615,081	9,152,533,585	4,058,574,813	14,500,453,104	100.0	100.0	100.0

¹ Indicates the percentage of liabilities in this category currently funded after fully funding categories (1) and (2).

Valuation date	# of active members	Covered payroll (000,000)	Average annual pay	% increase in average pay	# of participating employers
1987	27,906	500.2	17,924	1.9	
1988	28,411	530.0	18,655	4.1	
1989	28,749	554.9	19,302	3.5	
1990	29,378	582.7	19,835	2.8	
1991	30,524	616.8	20,207	1.9	
1992	31,717	694.3	21,890	8.3	
1993	32,512	731.1	22,487	2.7	
1994	33,301	788.6	23,681	5.3	
1995	33,390	811.1	24,292	2.6	
1996	32,624	820.1	25,139	3.5	
1997	32,397	835.1	25,776	2.5	
1998	32,903	875.9	26,620	3.3	
1999	33,664	902.5	26,810	0.7	
2000	34,180	944.6	27,637	3.1	
2001	34,887	1,029.7	29,515	6.8	
2002	35,130	1,080.1	30,745	4.2	
2003	35,114	1,117.2	31,818	3.5	
2004	35,408	1,164.0	32,875	3.3	
2005	35,774	1,206.1	33,715	2.6	
2006	36,074	1,229.9	34,094	1.1	
2007	37,311	1,297.2	34,769	2.0	
2008	37,707	1,363.9	36,170	4.0	474
2009	38,596	1,450.7	37,586	3.9	468
2010	39,014	1,491.1	38,220	1.7	470
2011	38,490	1,490.5	38,725	1.3	471
2012	38,207	1,502.7	39,329	1.6	473
2013	38,594	1,519.7	39,377	0.1	474
2014	38,951	1,587.1	40,745	3.5	476
2015	39,383	1,654.8	42,037	3.1	481
2016	39,940	1,724.4	43,194	2.8	485
2017	40,452	1,849.4	45,734	5.9	491
2018	41,180	1,902.7	46,220	1.1	495
2019	41,500	1,946.7	46,924	1.5	497
2020	41,327	1,994.0	48,265	2.9	500
2021	41,305	2,043.1	49,480	2.5	502
2022	41,878	2,137.7	51,058	3.2	503
2023	42,504	2,320.0	54,595	6.9	507

Schedule of Active Member Valuation Data

**Schedule of Retirees
and Beneficiaries
Added to and
Removed from
Benefit Payroll**

The schedule below identifies retirees' and beneficiaries' benefits considered in the current and previous actuarial valuations.

Valuation date	Beginning of year balance	Number added to payroll	Number removed from payroll	End of year balance	Annual pension added to payroll	Annual pension removed from payroll	Annual pension benefit amount	Average annual benefit	% increase in average benefit
2002	15,390	1,051	548	15,893	\$14,781,382	\$4,286,698	\$175,339,813	\$11,033	5.4
2003	15,893	1,112	564	16,441	16,904,111	4,612,777	191,738,495	11,662	5.7
2004	16,441	1,207	619	17,029	19,647,803	4,991,607	211,424,721	12,416	6.5
2005	17,029	1,121	602	17,458	16,955,458	4,970,672	228,469,621	13,020	4.9
2006	17,458	1,130	602	18,076	17,273,416	5,866,751	245,707,324	13,593	4.4
2007	18,076	1,306	663	18,719	20,128,796	5,699,854	265,922,928	14,206	4.5
2008	18,719	1,279	677	19,321	20,931,066	6,957,387	297,672,788	15,407	8.5
2009	19,321	1,295	667	19,949	21,285,086	7,429,345	318,556,151	15,969	3.6
2010	19,949	1,318	706	20,561	20,287,505	8,415,997	335,034,177	16,295	2.0
2011	20,561	1,575	679	21,457	27,164,131	8,006,912	359,385,525	16,749	2.8
2012	21,457	1,663	712	22,408	26,727,462	8,827,261	386,478,319	17,247	3.0
2013	22,408	1,683	764	23,327	27,259,699	9,535,172	410,679,002	17,605	2.1
2014	23,327	1,975	740	24,562	33,048,542	10,296,988	444,472,655	18,096	2.8
2015	24,562	1,766	839	25,489	29,958,087	12,083,416	474,690,226	18,623	2.9
2016	25,489	1,773	842	26,420	28,875,202	11,641,932	505,019,297	19,115	2.6
2017	26,420	1,689	891	27,218	29,833,466	13,829,331	530,508,306	19,491	2.0
2018	27,218	1,719	856	28,081	30,153,607	13,099,610	556,533,473	19,819	1.7
2019	28,081	1,917	929	29,069	36,042,932	14,900,910	587,929,811	20,225	2.0
2020	29,069	2,094	951	30,212	40,396,713	15,582,345	621,517,155	20,572	1.7
2021	30,212	2,094	1,063	31,243	37,990,554	18,405,552	648,373,800	20,753	0.9
2022	31,243	2,025	1,015	32,253	38,243,586	17,756,792	690,848,821	21,420	3.2
2023	32,253	1,935	997	33,191	35,215,201	18,192,054	721,854,550	21,749	1.5

Comparison of Actuarial Valuation Results

	2023 actuarial valuation	2022 actuarial valuation	% change
Active members			
Number	42,504	41,878	1.5
Average age	44.3	44.3	0.0
Average credited service	10.4	10.5	(1.0)
Annual prior year's compensation of members	\$2,319,954,580	\$2,137,706,450	8.5
Average annual compensation ¹	\$54,595	\$51,058	6.9
Benefit recipients			
RETIRED MEMBERS			
Number	28,934	28,085	3.0
Average age	72.7	72.7	0.0
Total annualized benefits	\$658,772,993	\$630,994,799	4.4
Average annualized benefits	\$22,768	\$22,467	1.3
BENEFICIARIES			
Number	4,008	3,906	2.6
Total annualized benefits	\$59,537,708	\$56,272,844	5.8
Average annualized benefits	\$14,855	\$14,407	3.1
DISABILITIES			
Number	249	262	(5.0)
Total annualized benefits	\$3,543,849	\$3,581,178	(1.0)
Average annualized benefits	\$14,232	\$13,669	4.1
Total benefit recipients			
Number	33,191	32,253	2.9
Total annual benefits	\$721,854,550	\$690,848,821	4.5
Average annual benefits	\$21,749	\$21,420	1.5
Suspended benefit recipients			
Number of suspended retirees	13	17	(23.5)
Number of suspended beneficiaries	77	78	(1.3)
Total suspended benefit recipients	90	95	(5.3)
Terminated members			
Number—vested	12,598	11,990	5.1
Number—non-vested (entitled to accumulated contributions only)	12,445	11,614	7.2
Total terminated members	25,403	23,604	6.1
Total system members	100,828	97,830	3.1
Results of actuarial valuation			
Normal cost ² (without expenses)	11.512%	11.846%	(2.8)
(with expenses)	11.760%	12.095%	(2.8)
Frozen unfunded actuarial accrued liability	\$0	\$0	
Fair value of assets	\$14,500,453,104	\$14,126,069,868	2.7
Actuarial value of assets	\$14,500,453,104	\$14,126,069,868	2.7
Actuarial accrued liability (AAL)	\$14,490,723,479	\$14,116,661,375	2.6
Actuarial value funded ratio	100.1%	100.1%	0.0
Fair value funded ratio	100.1%	100.1%	0.0

¹ Excludes active, former Cement Plant Retirement Plan members for whom no compensation is reported.

² Includes variable retirement contribution for generational members.

PLAN SUMMARY

South Dakota Retirement System (SDRS)

Effective Date SDRS was established effective July 1, 1974. The Supreme and Circuit Court Judicial Retirement System, District County Court and Municipal Court Judges' Retirement Program, South Dakota Teachers' Retirement System, South Dakota Municipal Retirement System, South Dakota Law Enforcement Retirement System, South Dakota Public Employees' Retirement System and South Dakota Board of Regents Retirement System (effective July 1, 1975) were consolidated into SDRS. Effective April 1, 2014, the South Dakota Cement Plant Retirement Plan was merged into SDRS and effective July 1, 2020, the Department of Labor and Regulation Plan was merged into SDRS.

Type of System SDRS is a governmental retirement system created by Act of the State of South Dakota.

System Administration The Retirement System is administered by the Board of Trustees consisting of two state government members; two teacher members; a participating municipality member; a participating county member; a currently contributing Class B member other than a justice, judge or magistrate judge; a justice, judge, or magistrate judge; a participating classified employee member; one head of a principal department or one head of a bureau under the office of executive management; an individual appointed by the governor; a county commissioner of a participating county; a school district board member; an elected municipal official of a participating municipality; a faculty or administrative member employed by the Board of Regents; a retiree; and an investment council representative, ex-officio non-voting.

The board of trustees appoints an executive director as the system's chief executive officer.

Employers Included Employers include the State of South Dakota and its departments, bureaus, boards, or commissions, and any of its governmental or political subdivisions or any public corporation of the State of South Dakota that elects to become a participating unit.

Members All of the following eligible employees are included as Members in the System:

- All state employees;
- All teachers;
- All justices, judges, and magistrate judges;
- All law enforcement employees of counties and municipalities that are participating with their Class B employees;
- All general employees of counties and municipalities that are participating with their Class A employees;
- All classified employees of school districts that are participating with their classified employees;
- All employees of the Board of Regents;
- All state law enforcement officers.

.....

Employees of the Department of Labor hired before July 1, 1980, who elected to remain covered under a former retirement plan, and members of the governing body of any participating county, municipality, or other public subdivision were excluded from SDRS membership prior to July 1, 2020. Sioux Falls municipal employees hired prior to July 1, 2013, are also excluded from SDRS membership.

Membership is immediate upon hire and is subdivided into four classes as follow:

- Class A members: all members other than Class B members or Class C members
- Class B members: members who are justices, judges and magistrate judges (*Class B Judicial Members*) and state law enforcement officers, police officers, firefighters, county sheriffs, deputy county sheriffs, correctional security staff, parole agents, air rescue firefighters, emergency medical services personnel, campus security officers, court services officers, juvenile corrections agents, gaming enforcement agents, conservation officers, and park rangers (*Class B Public Safety Members*).
- Class C members: former members of the Cement Plant Retirement Plan.
- Class D members: former members of the Department of Labor and Regulation Plan

Class A members constitute 92 percent of SDRS membership.

During the 2016 South Dakota Legislative Session, a new benefit structure was enacted for members joining SDRS after June 30, 2017. Members joining after that date will be called generational members and will have a different benefit structure than foundation members—members who joined on or before June 30, 2017. As of June 30, 2023, Generational members constitute 42.5 percent of SDRS active membership.

Credited Service is the period of employment for an SDRS member which is considered in determining the amount of benefits. It includes the following:

- Years and fractional years for which member contributions were made (contributory service).
- The period of non-contributory service credited prior to July 1, 1974, under the prior retirement systems consolidated under this system.
- For employees of the Board of Regents, the period of service between April 1, 1964, and June 30, 1975, for which purchase was made to Bankers Life and the period of service prior to April 1, 1964, up to a maximum of 20 years, for which purchase was made.
- Periods of non-contributory service credited due to specific legislation since 1974.

Credited service may be purchased for public employment for which members are not entitled to retirement benefits, at an actuarial cost based on age and subject to a minimum of 100 percent of combined member and employer contributions. Credited service purchased after July 1, 2004, shall not be considered contributory service for vesting. Credited service is purchased with an after-tax payment or a trustee-to-trustee transfer.

Credited Service

Compensation

Compensation is gross wages paid to a member for credited service rendered during the period for which payment was earned. It includes W-2 wages, plus any amount contributed to a member's individual retirement plan, plus a member's contribution to SDRS made on a before-tax basis, plus any amount contributed by a member to a plan that meets the requirements of Section 125, 401, 403, 308, or 457 of the Internal Revenue Code. Compensation does not include any allowance, payment or reimbursement for travel, meals, lodging, moving, uniforms or any other expense incidental to employment, any lump sum payment for sick or annual leave, any payments for or in lieu of insurance coverage, or any other benefit paid by an employer, any allowance or payment for housing or vehicles, any temporary payment not due to additional duties, any payment paid as a lump sum or over a period of time and based on or attributable to retirement or an agreement to retire in the future or results in an incentive to retire, any payment upon dismissal or severance, any worker's compensation payments and any payment contingent on a member terminating employment at a specified time in the future, even if included in W-2 wages.

Compensation for members hired after June 30, 1996, is limited as prescribed in Section 401(a)(17) of the Internal Revenue Code. For members hired on or before June 30, 1996, compensation is unlimited for credited service before January 1, 2018, and limited as prescribed in Section 401(a)(17) of the Internal Revenue Code for credited service on or after January 1, 2018.

Final Average Compensation

For Generational Members and Foundation Members whose Credited Service ends after June 30, 2022: Final Average Compensation is the highest average annual Compensation earned by a member during 20 consecutive calendar quarters of the last 40 such quarters of Credited Service. The Final Average Compensation is limited by statutory provisions that prevent increases greater than 5 percent in Compensation in the final quarter and in the year prior to termination.

The 5 percent limit on Compensation increases will be applied to each of the four-consecutive-calendar-quarter periods considered in the calculation of Final Average Compensation. At the commencement of retirement, disability or death benefits, Member and Employer contributions on Compensation excluded from the calculation of Final Average Compensation due to the application of the limits will be returned to the Member with credited investment return based on the actual investment earnings of the SDRS trust fund (Contribution Credit).

Fixed Statutory Employer Contributions

Employer contributions equal those amounts contributed by members except for the additional contributions noted on the next page.

Fixed Statutory Member Contributions

Class A members: 6 percent of compensation
Class B Public Safety members: 8 percent of compensation
Class B Judicial members: 9 percent of compensation

Member contributions are made on a pre-tax basis as permitted under Section 414(h) of the Internal Revenue Code.

For members with less than three years of contributory service, accumulated contributions are equal to member contributions and 50 percent of employer contributions. For members with three or more years of contributory service, accumulated contributions are equal to member contributions and 85 percent of employer contributions. Interest is credited annually at a rate established by the Board of Trustees that is no greater than 90 percent of the average 91-day U.S. Treasury Bill rate for the immediately preceding calendar year. Such rate shall have no minimum limitation and shall not be greater than the assumed rate of investment return, which is currently 6.5 percent.

Accumulated Contributions

Accumulated contributions for members who terminated prior to July 1, 2010, include 75 percent of employer contributions with less than three years of contributory service or 100 percent of employer contributions with three or more years of contributory service.

Effective July 1, 2002, employers contribute 6.2 percent of Class A Foundation member's calendar year compensation in excess of the maximum taxable amount for Social Security for the calendar year. These additional contributions are not included in accumulated contributions.

Additional Contributions

All benefits except those depending on the member's accumulated contributions are annually increased by the COLA.

Cost-of-Living Adjustment (COLA)

Prior to the COLA payable July 1, 2018, the annual increase in the amount of the SDRS benefits payable on each July 1st was indexed to CPI and based on the SDRS fair value funded ratio as of the prior July 1. The amount of the increase was:

- If the SDRS fair value funded ratio is 100 percent or more—3.1 percent COLA
- If the SDRS fair value funded ratio is at least 90 percent, but less than 100 percent, CPI with a 2.1 percent minimum and a 2.8 percent maximum
- If the SDRS fair value funded ratio is at least 80 percent, but less than 90 percent, CPI with a 2.1 percent minimum and a 2.4 percent maximum
- If the SDRS fair value funded ratio is less than 80 percent—2.1 percent COLA

Effective with the COLA payable July 1, 2018, the annual increase in the amount of the SDRS benefits payable on each July 1 is the percentage increase in the third calendar quarter consumer price index (CPI-W) for the prior year and further limited as follows:

- If the SDRS FVFR calculated assuming the COLA is equal to the baseline COLA assumption (2.25 percent) is at least 100 percent: CPI-W increase with a 0 percent minimum (0.5 percent minimum prior to the July 1, 2022 COLA) and a 3.5 percent maximum
- If the SDRS FVFR calculated assuming the COLA is equal to the baseline COLA assumption (2.25 percent) is less than 100 percent: CPI-W increase with a 0 percent minimum and a restricted maximum such that, if future COLAs are assumed to equal the restricted maximum, the SDRS FVFR is at least 100 percent.

.....

History of SDRS COLA

Benefit Increase in July	SDRS Minimum COLA	SDRS Maximum COLA	Prior Year Inflation ¹	SDRS COLA
1983 to 2009	COLA Fixed by Statute			3.10%
2010	COLA Fixed by Statute			2.10%
2011	2.10%	2.40%	1.49%	2.10%
2012	3.10%	3.10%	4.25%	3.10%
2013	2.10%	2.80%	1.66%	2.10%
2014	3.10%	3.10%	1.49%	3.10%
2015	3.10%	3.10%	1.70%	3.10%
2016	3.10%	3.10%	(0.41%)	3.10%
2017	2.10%	2.80%	0.76%	2.10%
2018	0.50%	1.89%	1.96%	1.89%
2019	0.50%	2.03%	2.79%	2.03%
2020	0.50%	1.88%	1.56%	1.56%
2021	0.50%	1.41%	1.28%	1.28%
2022	0.00%	3.50%	5.92%	3.50%
2023	0.00%	2.10%	8.75%	2.10%
2024	0.00%	1.91%	3.20%	1.91%

Normal Retirement Age

Foundation Members

The normal retirement age is age 65 with three years of contributory service for Class A and Class B Judicial members of the system and the normal retirement age is age 55 with three years of contributory service for Class B Public Safety members.

Generational Members

The normal retirement age is age 67 with three years of contributory service for Class A and Class B Judicial members of the system and the normal retirement age is age 57 with three years of contributory service for Class B Public Safety members.

Normal Retirement Benefit

Foundation Members

Members are entitled to retire with a benefit commencing in the month in which they reach normal retirement age and are payable for life, with an automatic 60 percent surviving spouse's benefit paid for the spouse's lifetime.

Class A Benefit

The Class A benefit is the larger of that provided by the following standard formula or alternate formula:

Standard Formula

Enhanced Benefit

1.7 percent times final average compensation times Class A credited service prior to July 1, 2008, plus

Base Benefit

1.55 percent times final average compensation times Class A credited service after July 1, 2008.

OR

.....

Alternate Formula

Enhanced Benefit

2.4 percent times final average compensation times Class A credited service prior to July 1, 2008, plus

Base Benefit

2.25 percent times final average compensation times Class A credited service after July 1, 2008, less

80 percent of primary Social Security benefit.

Class B Public Safety Benefit

The Class B Public Safety benefit is:

Enhanced Benefit

2.4 percent times final average compensation times Class B Public Safety credited service prior to July 1, 2008, plus

Base Benefit

2.0 percent times final average compensation times Class B Public Safety credited service after July 1, 2008.

Class B Judicial Benefit

The Class B Judicial benefit is the sum of the following:

First 15 Years of Credited Service

Enhanced Benefit

3.733 percent times final average compensation times Class B Judicial service credited prior to July 1, 2008, with a maximum of 15 years, plus

Base Benefit

3.333 percent times final average compensation times Class B Judicial credited service after July 1, 2008, with a maximum of 15 years less Class B Judicial credited service prior to July 1, 2008, plus

Years of Credited Service in Excess of 15 Years

Enhanced Benefit

2.4 percent times final average compensation times Class B Judicial credited service in excess of 15 years and prior to July 1, 2008, plus

Base Benefit

2.0 percent times final average compensation times Class B Judicial credited service in excess of 15 years and after July 1, 2008.

Generational Members

Members are entitled to retire with a benefit commencing in the month in which they reach normal retirement age and are payable for life. Optional reduced benefits are available, with a 60 percent or 100 percent surviving spouse benefit paid for the spouse's lifetime.

Class A Benefit

The Class A benefit is 1.8 percent times final average compensation times Class A credited service.

.....

Class B Public Safety Benefit

The Class B Public Safety benefit is 2.0 percent times final average compensation times Class B Public Safety credited service.

Class B Judicial Benefit

The Class B Judicial benefit is the sum of the following:

First 15 Years of Credited Service

3.333 percent times final average compensation times Class B Judicial credited service with a maximum of 15 years, plus

Years of Credited Service in Excess of 15 Years

2.0 Percent times final average compensation times Class B Judicial credited service in excess of 15 years.

In addition to the formula benefits, a notional variable retirement account will be funded with annual variable retirement contributions and credited with the actual investment return of the SDRS trust fund. The variable retirement contributions will be a portion of the employer contributions, initially set at 1.5 percent of compensation. At retirement, disability or death, generational members will receive the contributions and credited investment return as a lump sum, rolled over to an eligible retirement account or the SDRS Supplemental Retirement Plan, or used to purchase a Supplemental Pension Benefit.

All SDRS benefits are limited to the maximum benefit under Section 415 of the Internal Revenue Code.

Delayed Retirement Benefit

The monthly benefit payable upon retirement after normal retirement date is based on credited service and final average compensation to the member's actual retirement date.

Special Early Retirement Date (Rule of 85, Rule of 80, and Rule of 75)

Foundation Members

Members are entitled to retire at the member's special early retirement date with a benefit equal to the normal retirement benefit based on credited service and final average compensation to date of retirement, with no reduction for early payment.

The special early retirement date is the date at which age plus credited service equal:

- 85 for Class A members, but not prior to age 55
- 80 for Class B Judicial members, but not prior to age 55
- 75 for Class B Public Safety members, but not prior to age 45

Generational Members

No special early retirement benefits are available.

Early Retirement Benefit

Any member with at least three years of contributory service can retire in the ten years preceding their normal retirement age. The member will be entitled to receive the normal retirement benefit based on credited service and final average compensation to date of retirement, with a reduction for early commencement. Benefits commence in the month following retirement (or the date chosen for payment to commence) and 30 days after the application for

.....

retirement benefits has been received by SDRS.

Foundation Members

Benefits will be reduced by 1/4 of 1 percent for each full month by which the commencement of payments precedes the earlier of the normal retirement age or the special early retirement date.

Generational Members

Benefits will be reduced by 5/12 of 1 percent for each full month by which the commencement of payments precedes the normal retirement age.

SDRS benefits are restricted by IRC Section 415(b). The QBPA pays a portion of the SDRS benefits that are restricted. The total benefits paid from SDRS and the QBPA will be no greater than the applicable limit but unreduced for early commencement if the member retires before age 62 and actuarially increased for late retirement up to age 70 if the member retires after age 65. Benefits payable from both SDRS and the QBPA are considered in the Actuarial Valuation.

Qualified Benefit Preservation Arrangement (QBPA)

A terminated member with at least three years of contributory service will be entitled to receive the normal or early retirement based on the member's credited service at the time of termination of employment and increased by the cost-of-living adjustment from the date of termination to the date benefits commence.

Vested Benefit and Portable Retirement Option

In lieu of any monthly lifetime retirement benefits under the system, a terminating member may receive a lump-sum of his or her accumulated contributions under the portable retirement option.

A contributing member, who becomes disabled with at least three years of contributory service, or was disabled by accidental means while performing the usual duties of his or her job, is entitled to an immediate monthly disability benefit.

Disability Benefit

For disability applications received on or before June 30, 2015, the disability benefit is equal to:

- For the first 36 months, 50 percent of the member's final average compensation, increased 10 percent for each eligible child to a maximum of four children.

Starting with the 37th month,

- if the member is receiving disability benefits from Social Security, the greater of:
 - 50 percent of final average compensation plus 10 percent for each eligible child to a maximum of 90 percent less the amount of primary Social Security.
 - 20 percent of final average compensation increased by the COLA
 - the unreduced accrued retirement benefit at date of disability
- if the member is not receiving disability benefits from Social Security, the greater of:
 - 20 percent of final average compensation increased by the COLA
 - the unreduced accrued retirement benefit at date of disability

.....

The maximum benefit is 100 percent of final average compensation (increased by the COLA) reduced by earned income and primary Social Security.

At age 65 (or when there are no eligible children, if later), but not before five years of disability, the benefit payable is converted to the normal retirement benefits based on compensation increased by the COLA for the period between the date of disability and normal retirement age, and credited service as if employment had continued uninterrupted to normal retirement age.

For disability applications received after June 30, 2015, the disability benefit is equal to the greater of:

- 25 percent of the member's final average compensation at the date of disability
- the unreduced accrued retirement benefit at the date of disability

A surviving spouse of a disabled member who dies while receiving a benefit will receive 60 percent of the member's benefit for the spouse's lifetime, commencing at the spouse's age 65 (or age 67 for spouses of Generational members).

Survivor Benefits

Pre-Normal Retirement Age and Post-Disability Deaths

For deaths on or before June 30, 2015:

If an active member with at least one year of contributory service, or a member receiving a disability benefit commencing after July 1, 1974, dies, the surviving spouse having the care of eligible dependent children will receive an immediate benefit equal to 40 percent of the member's final average compensation, increased 10 percent for each child to a maximum of six children. If the surviving eligible dependent children are under the care of a guardian, the benefit payable will be 20 percent of the member's final average compensation for each child (to a maximum of five children).

The above survivor benefits are all payable monthly without improvements and reduced by 75 percent of primary Social Security benefit.

If no benefit is payable as defined above or payment has ceased, and the member's accumulated contributions have not been withdrawn, the spouse is entitled to receive at the spouse's age 65 a benefit equal to 60 percent of the normal retirement benefit that would have been payable to the deceased member at normal retirement age based on projected credited service and projected compensation, and further increased by the COLA for any time between normal retirement date and payment commencement date.

The benefit is payable to the spouse when the spouse reaches age 65. Effective July 1, 2015, a member's spouse may elect to commence survivor benefits as early as age 55 and the spouse's benefit is reduced by five percent for each year commencement precedes the spouse's age 65.

For deaths after June 30, 2015:

If an active member with at least three years of contributory service, or a member receiving a disability benefit approved after June 30, 2015, dies, the eligible dependent children will receive an immediate benefit equal to the greater of:

- 25 percent of the member's final average compensation at the date of disability
- the unreduced accrued retirement benefit at the date of disability

.....

The benefit will be split equally among any eligible children of the member. The benefit ceases if there are no eligible children. If no benefit is payable as defined above, the spouse is entitled to receive at the spouse's age 65 (or age 67 for spouses of Generational members) a benefit equal to 60 percent of the benefit payable above increased by the COLA for any time between the date of the member's death and payment commencement date. If the benefit ceases due to no eligible children, the benefit is increased by the COLA for any time between the date benefit ceased and payment commencement date.

The spouse may elect to commence survivor benefits as early as age 55 (age 57 for spouses of Generational members) and the spouse's benefit is reduced by five percent for each year commencement precedes the spouse's age 65 (age 67 for spouses of Generational members).

Post-Normal Retirement Age and Post-Retirement Deaths Foundation Members

Upon the death of a Foundation retiree or Foundation member at or beyond normal retirement age, the surviving spouse is entitled to receive 60 percent of the monthly retirement benefit the member was receiving or was eligible to receive.

Generational Members

Upon the death of a Generational member at or beyond normal retirement age but not yet receiving benefits, the surviving spouse is entitled to receive a lifetime benefit equal to 60 percent of the benefit the member would have received if the member retired on the date of death and elected the 60 percent joint and survivor benefit.

Upon the death of a Generational member receiving retirement benefits, the surviving spouse is entitled to receive a lifetime benefit equal to 60 percent or 100 percent of the monthly retirement benefit the member was receiving if the member had elected a joint and survivor benefit at retirement.

Terminated Member

If a member dies prior to benefit commencement, the accumulated contributions are refunded to the designated beneficiary, children, or estate in a lump sum.

Optional Spouse Coverage

Prior to June 30, 2010, a member could have elected to provide an additional benefit payable to the surviving spouse within 365 days after becoming a member, within 90 days following attainment of age 35, or within 90 days after the first anniversary of marriage. This optional coverage may continue until the member's spouse attains age 65, the death or disability of the member, the death of the member's spouse, termination of the member's marriage to his spouse, or the member's termination of employment or termination of coverage.

The elected additional monthly benefit is equal to 40 percent of the member's final average compensation multiplied by the COLA for each full year between the date of death or disability of the member to payment commencement. Such benefit is paid upon the member's death from the time there are no eligible children until the spouse dies or attains age 65.

The cost of this protection is paid by the member through an additional

.....

contribution of 1.5 percent of compensation, which will not be matched by the employer and is not refundable.

Accumulated Contributions as Minimum Benefits

If the aggregate benefit payments received by a member and the member's beneficiary (excluding benefits received under the optional spouse coverage benefit provisions) do not equal the sum of the accumulated contributions, then the difference will be paid to the member's designated beneficiary, children, or estate in a lump sum.

Optional Forms of Retirement Payments

The monthly retirement benefits may be modified to an optional form of payment which is the actuarial equivalent of the benefit due under the system.

Foundation Members

A Social Security level income payment option is available for members who retire before age 62.

Generational Members

A joint and survivor benefit with 60 percent or 100 percent of the member's benefit continuing to a surviving spouse is available with a reduced member's benefit.

Administrative Expenses

Administrative expenses are paid from the system's assets in an amount not to exceed 3 percent of the annual member and employer contributions received by the system.

Prior Benefit Formula Improvements for Foundation Members

Retired and terminated vested Foundation members' benefits have been increased to reflect the benefit formula currently in effect for active Foundation members.



INVESTMENT SUMMARY

State Investment Officer's Letter Investment Analysis

The Investment Council
Investment Objectives and Policy
Prudent Man Standard
Investment Performance
Schedule of Investment Management Expenses
Summary of Investment Portfolios
Asset Allocation
SDRS Rates of Return
Real Estate and Private Equity LP Investments

STATE INVESTMENT OFFICER'S LETTER

TO THE SOUTH DAKOTA RETIREMENT SYSTEM BOARD OF TRUSTEES:

This letter summarizes fiscal year 2023 investment performance and discusses the South Dakota Investment Council's (Council) investment objectives, long-term approach, and future return expectations for South Dakota Retirement System (SDRS) assets. Additional information about SDRS investments may be found in the Council's annual report available at www.sdjc.sd.gov.

FISCAL YEAR 2023 PERFORMANCE

The fiscal year 2023 time-weighted investment return was 5.8% net of investment management cost. This was less than the Council's capital markets benchmark return of 10.7%. The underperformance resulted from having lower exposures to equities and from underperformance against benchmark of private equity and real estate partnerships.

INVESTMENT OBJECTIVES

The primary investment objective for SDRS assets is to achieve and exceed over the long term the return of the Council's capital markets benchmark. This benchmark reflects the Council's benchmark asset allocation applied to index returns for each category. Accomplishment of this objective provides the best opportunity to earn returns sufficient to maintain the financial strength of SDRS. The secondary objective is to achieve and exceed over the long term the median return earned by peer funds.

INVESTING FOR THE LONG TERM

The Council has managed SDRS assets since consolidation in 1974. Since inception, investment returns have meaningfully exceeded the Council's capital markets benchmark and the median return of other state retirement systems across the nation.

The Council invests in assets believed to be undervalued from a long-term perspective. The investment valuation process is based on the view that the worth of an asset is the present value of its future cash flows. Internal research efforts focus on estimating future cash flows and assessing risk which impacts the rate used to discount cash flows to present value.

Results vary significantly from year to year with many interim periods of underperformance in the Council's history. Whether an individual year is good, bad, or average, it is important to be mindful that the Council invests for the long term and that actions taken in one year may impact performance several years down the road. Success has resulted primarily from adhering to the long-term strategies during underperforming periods.

RETURN EXPECTATIONS

The Council believes market return expectations should be based on forward-looking long-term cash flows rather than extrapolation of past returns which tend to relate inversely to future results.

As of June 30, 2023, long-term expected returns were 3.8% for bonds and 8.0% for stocks. Rising interest rates foreshadow higher future bond returns than in recent years. The expected return for stocks remains lower than earned on average historically. The expected long-term return for the overall SDRS fund, which is diversified across several asset categories, was 5.7% incorporating the SDRS inflation assumption of 2.5%. This excluded any potential value added or detracted relative to index returns and any impact of timing of withdrawals to pay benefits. The expected return is the mid-point of a range of possible outcomes. The one standard deviation range, which statistically encompasses the central two-thirds of potential outcomes, is 0.9% to 10.6% per annum for a ten-year horizon and 2.3% to 9.2% for a 20-year horizon.

Unsustainable buildup of global debt is potentially the greatest risk to markets. Increased inflation is the typical initial consequence. Efforts to rein in inflation may require government spending restraint and reversal of prior monetary stimulus. Those efforts could lead to recession and possibly deflationary debt liquidation, or if inadequate, higher sustained inflation. In the past year, short-term interest rates have increased significantly. As loans roll over to the higher rates, monetary tightening will become more impactful. Government debt growth remains problematic and at risk of acceleration as interest cost surge.

The Council values the excellent cooperative relationship with the SDRS Board of Trustees and staff. The Council believes this teamwork and a disciplined focus on long-term investment value will serve us well in the decades to come.

Submitted by:


Matthew L. Clark, CFA
State Investment Officer

The SDRS trust fund is invested under the direction of the South Dakota Investment Council. The Council is composed of eight voting members, including five members who have training and experience in the field of investment or finance chosen by the Executive Board of the Legislative Research Council and three ex-officio members—the State Treasurer, the Commissioner of School and Public Lands, and the SDRS Executive Director. The Council is a policy-making board and attends to matters such as asset allocation, portfolio strategy, and the selection or dismissal of outside investment managers.

The Investment Council

The data in the investment section of this report was prepared by the South Dakota Investment Council. The South Dakota Retirement System in conjunction with the South Dakota Investment Council and external auditors, Eide Bailly LLP, prepared the investment section of this report.

The South Dakota Investment Council’s primary investment objective for SDRS assets is to achieve and exceed over the long term the return of the Council’s Capital Markets Benchmark. Accomplishment of this objective provides the best opportunity to earn returns sufficient to maintain the financial strength of SDRS. An estimate of the long-term return of the benchmark is used by the SDRS actuary to assess the funding status of SDRS. If investment markets prove disappointing or the Council underperforms, benefit reductions may be statutorily required.

Investment Objectives and Policy

The Capital Markets Benchmark reflects the Council’s benchmark asset allocation applied to index returns for each asset category. The key investment policy decision relates to asset allocation as discussed in the SDRS Asset Allocation Focus in the Council’s annual report, which may be found on their website, sdic.sd.gov. The index-based capital markets benchmark is believed to represent a challenging comparison as the average investor tends to underperform market indexes over time due to management fees and transactions costs.

This objective has been achieved for the majority of rolling 5 and 10-year periods and all 20-year and 30-year periods. The table on page 86 summarizes SDRS total fund performance versus the Council’s capital markets benchmark.

A secondary objective is to achieve and exceed over the long term the median return earned by peer funds. Comparison to peer funds can help in assessing performance as most peer funds have similar long-term return objectives.

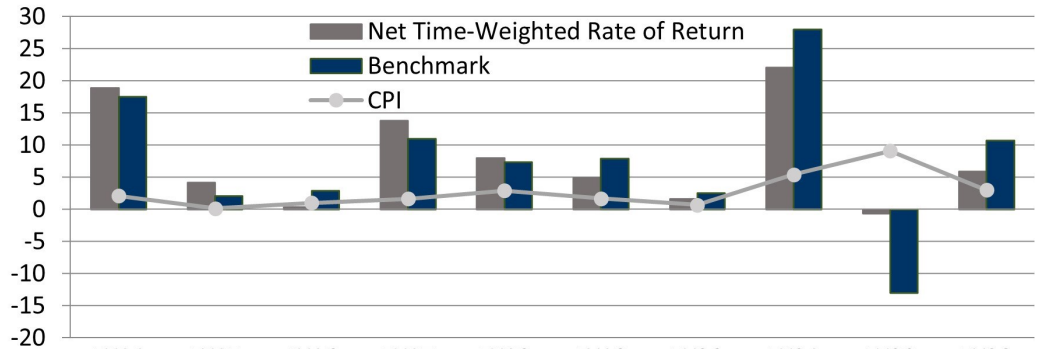
South Dakota Codified Law 4-5-27 requires that the South Dakota Retirement System trust fund be invested according to the Prudent Person Standard. South Dakota Codified Law defines the Prudent Person Standard as follows:

Prudent Person Standard

Any investments under the provisions of SDCL 4-5-12 to 4-5-39, inclusive, shall be made with the exercise of that degree of judgment and care, under circumstances then prevailing, which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation but for investment, considering the probable safety of their capital as well as the probable income to be derived.

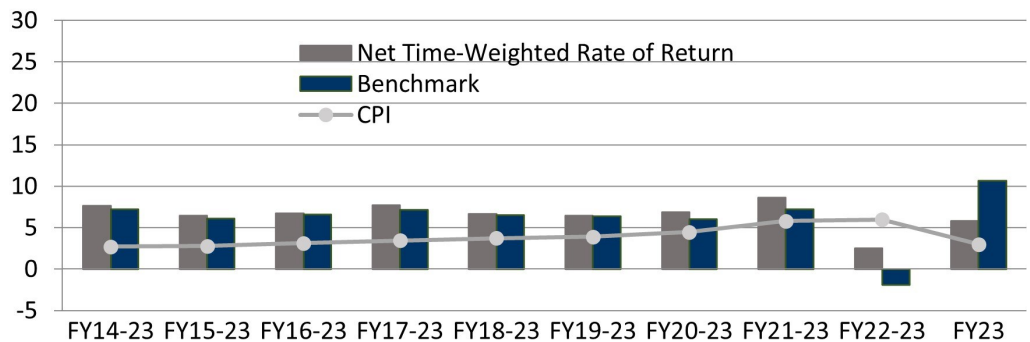
Though monthly benefit payments exceed monthly contributions, the South Dakota Retirement System is not subject to sudden, substantial, and unexpected withdrawals. As a result, it is not necessary to have a high percentage of assets in short-term investments unless this is deemed to be the best investment strategy. This allows the trust fund to be as fully invested in stocks, bonds, and other alternatives as investment strategy dictates.

Investment Performance Compared to Capital Market Benchmark and Inflation



	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Net Time-Weighted Rate of Return	18.90	4.18	0.30	13.81	7.94	4.88	1.59	22.03	-0.69	5.84
Benchmark	17.49	2.09	2.88	10.96	7.33	7.91	2.52	27.97	-13.02	10.65
CPI	2.07	0.12	1.00	1.63	2.87	1.65	0.65	5.39	9.06	2.97

Cumulative Investment Performance Compared to Capital Market Benchmark and Inflation



	FY14-23	FY15-23	FY16-23	FY17-23	FY18-23	FY19-23	FY20-23	FY21-23	FY22-23	FY23
Net Time-Weighted Rate of Return	7.63	6.44	6.73	7.68	6.69	6.44	6.84	8.65	2.52	5.84
Benchmark	7.19	6.10	6.62	7.16	6.54	6.38	6.00	7.19	-1.89	10.65
CPI	2.71	2.78	3.12	3.43	3.73	3.90	4.47	5.78	5.97	2.97

Schedule of Investment Management Fees and Expenses
Year Ended June 30, 2023

Investment category	
Internal Management Fees—Fixed Income	\$13,780,133
External Management Fees—Equity	399,612
External Management Fees—Real Estate	29,930,520
External Management Fees—Private Equity	19,357,530
Total investment activity expenses	<u>\$63,467,795</u>

Summary of Investment Portfolios
As of June 30, 2023

	Fair Value Excluding Futures	Futures Exposure	Fair Value with Futures	Percent of Fund with Futures	Capital Markets Benchmark Percent
Public Equity					
Internal Global Large-Cap Equity	\$3,637,145,249				
Internal Emerging Markets ETF	564,769,695				
Internal Small/Mid-Cap Equity	789,392,096				
Sanders Capital	87,077,785				
Equity Index Futures		\$(1,806,409,242)	\$3,271,975,583	22.6	56.3
Private Equity					
Blackstone Capital Partners	126,768,201				
Blackstone Energy Partners	159,718,996				
Capital International	13,810,572				
Carlyle	47,546,418				
Cinven	241,634,848				
CVC	250,201,364				
Cypress	17,454				
Doughty Hanson	533,324				
EnCap Energy Capital	52,695,938				
KKR	353,720				
PineBridge	3,048,518				
Riverstone	113,307,834				
Silver Lake	616,822,457	0	1,626,459,644	11.2	0.0
Aggressive Absolute Return					
Bridgewater	100,995,151				
Telsey	14,641,888	0	115,637,039	0.8	0.0
Real Estate					
Internal REIT	154,492,968				
Blackstone Real Estate Partners	1,142,811,277				
Brookfield Strategic Partners	249,105,319				
Lone Star	122,301,066				
Rockpoint	140,404,328				
Starwood	171,716,468	0	1,980,831,426	13.7	12.0
Investment Grade Debt					
Internal Investment Grade	1,071,418,798				
Internal Treasury Notes	276,620,907				
Internal Investment Grade Bond EFT	229,643,775				
Treasury Note Futures		228,687,750	1,806,371,230	12.5	22.8
High Yield Debt (Corporate)					
Internal High Yield	629,673,810	0	629,673,810	4.3	7.0
Cash & Cash Equivalents					
Internal Cash	75,098,023				
Internal Treasury Bills	892,620,907				
Internal Money Market Funds	2,509,864,409				
Cash from Futures		1,577,721,492	5,055,304,831	34.9	1.9
Total	<u>\$14,486,253,563</u>	<u>\$0</u>	<u>\$14,486,253,563</u>	<u>100%</u>	<u>100%</u>

Asset Allocation

Allocation of assets to categories may be the most impactful investment decision. The Council establishes a benchmark asset allocation which considers expected long-term returns and risk. Categories included in the benchmark are those that are significant in size and can be passively implemented. These include public equity, real estate, high yield debt, investment grade debt, and cash. The Council's Capital Markets Benchmark (CMB) is based on the benchmark asset allocation and is intended to represent what is achievable through index funds without requiring exceptional skill. The Capital Markets Benchmark is used to compare against actual results to assess whether value has been added. The benchmark is viewed as a challenging hurdle as it is difficult for most investors to exceed index returns. The Council also establishes a minimum and maximum for each category. Niche or skill-based categories are not included in the benchmark but can have a permitted range for when it is believed that valuation of a category is depressed or if superior managers have been identified.

Use of multiple asset categories can complicate understanding of total fund risk as categories may have varying sensitivities to changing economic and market conditions. When the Council began managing assets in the early 1970's, most institutional portfolios consisted of bonds, some stocks, and cash. Investors back then could understand the level of risk by simply looking at the percentage invested in stocks. To help in understanding the risk of today's more complicated portfolios, the Council focuses on equity-like and bond-like risk. Equity-like risk is the percentage invested in stocks plus any embedded equity exposure of other categories, particularly during times of market stress. Bond-like risk is the percentage invested in investment grade bonds plus any embedded bond exposure of other categories. The benchmark equity-like risk is 70 percent with a permitted range of 40 percent to 85 percent. The benchmark bond-like risk is 27 percent with a permitted range of 15 percent to 60 percent. There are also ranges around the benchmark allocation to individual asset categories.

The valuation process which drives allocations within the ranges is based on the present value of estimated future cash flows. Internal research efforts focus on estimating cash flows and risk-based discount rates. Conventional statistical measures of risk are calculated. These include standard deviation as a measure of volatility and correlation as a measure of the degree that categories provide diversification. Conventional measures are helpful for understanding risk in normal times but can understate real-world frequency and magnitude of severe declines. The Council adjusts statistical measures to better reflect risk during severe declines. Liquidity is monitored to minimize risk of forced liquidations.

The equity-like risk of the SDRS fund was near 50.0 percent for fiscal year 2023 compared the Capital Markets Benchmark level of 70.0 percent. The actual level can fluctuate within a small rebalance band around the target.

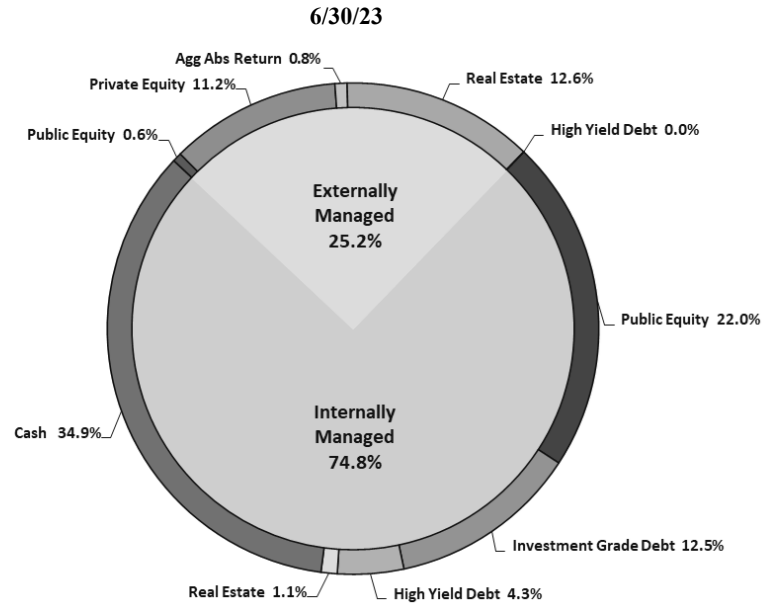
The expected long-term return for the benchmark allocation as of June 30, 2023, was 5.7 percent incorporating the SDRS inflation assumption of 2.5 percent. The actual portfolio can be significantly different than the benchmark at any point in time, but the long-term average level of equity-like risk is expected to be close to the 70.0 percent benchmark level. The expected return for the benchmark excludes any potential value added or detracted relative to index returns resulting from actively managing the fund and the impact of timing of withdrawals to pay benefits. Standard deviation was estimated to be 15.4 percent after adjustments to capture real-world frequency of adverse events. These statistics indicate a 66 percent chance the return for any year would be between (9.7 percent) and 21.1 percent and a 95 percent chance the return would be between (25.1 percent) and 36.5 percent.

In recent years, unsustainable buildup of global debt was highlighted as potentially the greatest risk to markets. The expected consequences were muted growth and increased inflation. Subsequent efforts to lower inflation could require government spending restraint and reversal of prior monetary stimulus. Those efforts could lead to deflationary debt liquidation, or if inadequate, higher sustained inflation.

In the past year, short-term interest rates have increased significantly. As loans roll over to the new rates, the monetary tightening will become more impactful and potentially lead to a recession. Government debt growth remains problematic and at risk of acceleration as higher rates increase interest cost. Debt growth continues to be a significant long-term risk for markets.

Asset Allocation

	6/30/21	6/30/22	6/30/23
Public equities	24.1%	22.5%	22.6%
Fixed income	22.6%	17.5%	16.8%
Cash	31.8%	36.5%	34.9%
Arbitrage/AAR	0.6%	1.0%	0.8%
Real estate	10.0%	11.5%	13.7%
Private equity	10.9%	11.0%	11.2%



SDRS Rates of Return

Annual Returns

Fiscal Year	Time Weighted Gross of Fees	Time Weighted Net of Fees	Capital Markets Benchmark	Money Weighted Net of Fees
2023	6.31%	5.84%	10.65%	5.80%
2022	-0.34%	-0.69%	-13.02%	-0.64%
2021	22.48%	22.03%	27.97%	22.01%
2020	2.01%	1.59%	2.52%	1.56%
2019	5.32%	4.88%	7.91%	4.84%
2018	8.35%	7.94%	7.33%	7.95%
2017	14.16%	13.81%	10.96%	13.84%
2016	0.61%	0.30%	2.88%	0.21%
2015	4.39%	4.18%	2.09%	4.17%
2014	19.32%	18.90%	17.49%	18.91%

Annualized Returns

	Time Weighted Net of Fees	Capital Markets Benchmark
FY23	5.84%	10.65%
FY22-23	2.52%	-1.89%
FY21-23	8.65%	7.19%
FY20-23	6.84%	6.00%
FY19-23	6.44%	6.38%
FY18-23	6.69%	6.54%
FY17-23	7.68%	7.16%
FY16-23	6.73%	6.62%
FY15-23	6.44%	6.10%
FY14-23	7.63%	7.19%

Time-Weighted Rate of Return is the rate of investment growth earned on a unit of assets held continuously for the entire period measured and is used to compare returns against other investment managers and indexes.

Money-Weighted Rate of Return considers the changing amounts actually invested during a period and weights the amount of pension plan investment by the proportion of time they are available to earn a return during that period. The rate of return is then calculated by solving, through an iterative process, for the rate that equates (1) the sum of the weighted external cash flows into and out of pension plan investments to (2) the ending fair value of the pension plan investment.

Capital Markets Benchmark is the asset allocation policy approved by the Investment Council applied to the appropriate index returns.

FY 2023 Asset Class Returns and Benchmarks

Fiscal Year 2023	Public Equity Internal	Public Equity Composite	Investment Grade FI Internal	High Yield Internal	Opportunistic Real Estate Partnerships*	Private Equity Partnerships**	Total Fund
SDRS	19.70%	17.68%	-0.95%	10.99%	-3.21%	10.88%	5.84%
Benchmark	19.98%	18.23%	-0.97%	9.06%	-0.09%	18.23%	10.65%
Difference	-0.28%	-0.54%	0.02%	1.93%	-3.12%	-7.35%	-4.82%

3 Years Ended 6/30/23	Public Equity Internal	Public Equity Composite	Investment Grade FI Internal	High Yield Internal	Opportunistic Real Estate Partnerships*	Private Equity Partnerships**	Total Fund
SDRS	18.76%	17.59%	-4.16%	9.67%	14.22%	20.21%	8.65%
Benchmark	13.43%	12.15%	-4.03%	3.51%	8.88%	12.15%	7.19%
Difference	5.33%	5.44%	-0.13%	6.16%	5.34%	8.06%	1.46%

5 Years Ended 6/30/23	Public Equity Internal	Public Equity Composite	Investment Grade FI Internal	High Yield Internal	Opportunistic Real Estate Partnerships*	Private Equity Partnerships**	Total Fund
SDRS	10.93%	9.80%	0.89%	0.81%	9.74%	10.58%	6.44%
Benchmark	10.24%	9.10%	0.77%	2.94%	4.55%	9.10%	6.38%
Difference	0.69%	0.70%	0.11%	-2.13%	5.19%	1.47%	0.06%

Asset Class Benchmarks:

Global Equity Internal—S&P 1200 Ex-Emerging Markets, Ex-Real Estate Index (02/01/22-06/30/22, 2023); S&P 1200 Ex-Emerging Markets Index (2020-01/30/22); S&P 1200 Index weighted 2/3 plus S&P 500 Index weighted 1/3 (2019)
 Public Equity composite—MSCI All Country IMI Ex-Real Estate Index weighted 3/4 plus MSCI IMI USA Ex-Real Estate Index weighted 1/4 (02/01/22-06/30/22, 2023); MSCI All Country IMI Index weighted 3/4 plus MSCI IMI USA Index weighted 1/4 (2019-01/31/22)

Investment Grade Fixed Income Internal—FTSE US Broad Investment-Grade Bond Index (USBIG)

High Yield Internal—FTSE US High Yield Market Cash-Pay Capped North American Custom Index (02/01/23-06/30/23), FTSE US High Yield Cash-Pay Capped Custom Index (2019-01/31/23)

*Opportunistic Real Estate Partnerships returns are based on Internal Rate of Return (IRR). IRR is a commonly used return methodology for investments with varying cash flows.

Evaluation of real estate partnerships is net of all fees and is based on a comparison to public market equivalent (PME) index that can be adjusted for differences in use of leverage and geographic exposure.

The benchmark return shown is MSCI US Reit Index

**Private Equity Partnerships returns are based on Internal Rate of Return (IRR). IRR is a commonly used return methodology for investments with varying cash flows.

Evaluation of private equity partnerships is net of all fees and is based on a comparison to a public market equivalent (PME) index that can be adjusted for differences in use of leverage, industry, and geographic exposure.

The benchmark return shown is the same as the Public Equity Composite Benchmark

Total Fund Benchmark

	Public Equity	Investment Grade Fixed Income	Real Estate	High Yield Debt	Cash
2023	56.3%	22.8%	12.0%	7.0%	1.9%
2022	58%	23%	10%	7%	2%
2021	58%	23%	10%	7%	2%
2020	58%	23%	10%	7%	2%
2019	58%	23%	10%	7%	2%
2018	58%	23%	10%	7%	2%

Public Equity—MSCI All Country IMI Ex-Real Estate Index weighted 3/4 plus MSCI USA IMI USA Ex-Real Estate Index weighted 1/4 (2023), MSCI All Country IMI Index weighted 3/4 plus MSCI USA Index weighted 1/4 (2020-2022); MSCI All Country World Index weighted 2/3 plus MSCI USA Index weighted 1/3 (2019)

Investment Grade Fixed Income—FTSE US Broad Investment-Grade Bond Index (USBIG)

Real Estate—MSCI US REIT Index

High Yield Debt—FTSE High-Yield Market Index

Cash—FTSE US Three-Month Treasury-Bill Index

**Private Equity
and Real Estate
Limited
Partnership
Investments**

The Council has invested in real estate (RE) and private equity (PE) limited partnerships since the mid-1990s. Although these investments are illiquid and have higher fees, the Council believes that they offer diversification and the opportunity for added value net-of-fees over public market investments. The funding of these investments is made over several years as the partnerships call money from investors to buy assets and later return it when assets are sold. According to industry standards, the return analysis for these investments requires the use of a since inception internal rate of return (SI-IRR).

SI-IRR is the calculation that equates the present value of all cash flows (capital calls and distributions) with the period-end value. The public market equivalent (PME) is a method where a public market index is expressed in terms of a SI-IRR, using the same cash flows and timing as those of the partnership investment over the same time period. The partnership SI-IRR is calculated net-of-fees (management fees, performance based fees, and general partner carried interest). Also, a composite SI-IRR that combines the partnerships in each category is calculated.

From November 1995 through June 2023, the net-of-fees SI-IRR for the composite PE limited partnership investments was 9.8 percent. This can be compared to the S&P 500 Index PME of 6.9 percent for the same period. RE limited partnerships net-of-fees SI-IRR composite from December 1994 through June 2023 was 20.3 percent. A PME using the MSCI US REIT Index could not be calculated using the same cash flows because the return of the RE limited partnerships was significantly higher than the index. The annualized time-weighted rate of return for the MSCI US REIT Index was 9.3 percent for the same period of time.

The composite return of the RE limited partnerships has significantly exceeded and the PE limited partnerships has slightly exceeded Council expectations. The Council will continue its ongoing evaluation of RE and PE limited partnerships.

See the South Dakota Investment Council Annual Report on the SDIC website, sdic.sd.gov, for more details on this topic.



STATISTICAL SUMMARY

Membership Profile

- Public Entities Participating in SDRS
- SDRS Benefits Paid: Class A & B
- Membership by Age: Class A & B
- Membership by County of Residence: Class A & B
- SDRS Benefits Paid: Class C
- Membership by Age: Class C
- Membership by County of Residence: Class C
- Membership by Group
- Benefit Recipients by Group
- Average Benefit Payments
- Historical Views

MEMBERSHIP PROFILE

All teachers, higher education personnel, and legislative, executive, and judicial employees are required to participate in SDRS. Counties, municipalities, and other public entities, however, have the option of participating, and school districts may choose whether or not to include their classified employees.

The following schedules list SDRS participating entities by group, the number of active members in each group, and each group's percentage of the 42,504 total active members as of June 30, 2023.

Aberdeen	Cornbelt Coop	Harding County	Mitchell	South Central
Agar-Blunt-Onida	Corsica-Stickney	Harrisburg	Mobridge-Pollock	South East Area
Alcester-Hudson	Custer	Henry	Montrose	Spearfish
Andes Central	Dakota Valley	Herreid	Mt. Vernon	Stanley County
Arlington	Dell Rapids	Highmore-Harold	New Underwood	Summit
Armour	DeSmet	Hill City	Newell	Tea Area
Avon	Deubrook Area	Hitchcock-Tulare	North Central Coop	Three Rivers
Baltic	Deuel	Hot Springs	Northeast Tech	Timber Lake
Belle Fourche	Doland	Hoven	Northeast Ed Serv	Todd County
Bennett County	Douglas	Howard	Northwest Area	Tripp-Delmont
Beresford	Dupree	Huron	Northwestern	Tri-Valley
Big Stone City	Eagle Butte	Ipswich	Oahe Special Ed	Vermillion
Bison	East Dakota Ed	Irene-Wakonda	Oelrichs	Viborg-Hurley
Black Hills Special	Edgemont	Iroquois	Oglala Lakota	Wagner
Serv Coop	Edmunds Central	James Valley Ed	County	Wall
Bon Homme	Elk Mountain	Coop	Oldham-Ramona	Warner
Bowdle	Elk Point-Jefferson	Jones County	Parker	Watertown
Brandon Valley	Elkton	Kadoka Area	Parkston	Waubay
Bridgewater-Emerly	Estelline	Kimball	Pierre	Waverly
Britton-Hecla	Ethan	Lake Preston	Plankinton	Webster Area
Brookings	Eureka	Langford Area	Platte-Geddes	Wessington Springs
Burke	Faith	Lead-Deadwood	Prairie Lakes Ed	West Central
Canistota	Faulton	Lemmon	Coop	Western Dakota
Canton	Flandreau	Lennox	Rapid City	Tech
Castlewood	Florence	Leola	Redfield	White Lake
Centerville	Frederick Area	Lyman	Rosholt	White River
Chamberlain	Freeman	Madison Central	Rutland	Willow Lake
Chester Area	Garretson	Marion	Sanborn Central	Wilmot
Children's Hospital/	Gayville-Volin	McCook Central	Scotland	Winner
Lifescape	Gettysburg	McIntosh	Selby Area	Wolsey-Wessington
Clark	Gregory	McLaughlin	Sioux Falls	Woonsocket
Colman-Egan	Groton Area	Meade County	Sioux Valley	Yankton
Colome	Haakon County	Menno	Sisseton	
Core Education	Hamlin	Milbank	Smee	
Coop	Hanson	Miller	South Central Coop	

Public Entities Participating in SDRS

School Districts Membership: 19,987

Percentage of total active members: 47.0%
Units: 165

Executive Management	Lottery	Attorney General
Agriculture	Military	State Auditor
Corrections	Public Safety	State Treasurer
Education	Revenue	School & Public Lands
Environment & Natural Resources	Social Services	Public Utilities Commission
Game, Fish & Parks	Tourism	Legislative Audit
Governor's Office of Economic Dev	Transportation	Legislative Research Council
Health	Tribal Relations	Unified Judicial System
Human Services	Veterans Affairs	SD Investment Council
Labor & Regulation	Secretary of State	SD Retirement System

Legislative, Executive, and Judicial Agencies Membership: 7,961

Percentage of total active members: 18.7%
Units: 1

Board of Regents Central Office	Black Hills State University
University of South Dakota	Dakota State University
South Dakota State University	South Dakota School for the Visually Impaired
South Dakota School of Mines and Technology	South Dakota School for the Deaf
Northern State University	

Institutions of Higher Education Membership: 4,393

Percentage of total active members: 10.3%
Units: 1

Municipalities
Membership: 5,294

Percentage of total active members: 12.5%
Units: 171

Aberdeen	Chancellor	Freeman	Lake Andes	Parker	Toronto
Alcester	Clark	Garretson	Lake Norden	Parkston	Tripp
Alexandria	Clear Lake	Gary	Lake Preston	Philip	Tyndall
Arlington	Colman	Gettysburg	Langford	Pickstown	Valley Springs
Armour	Colome	Gregory	Lead	Pierre	Veblen
Aurora	Colton	Groton	Lemmon	Plankinton	Vermillion
Avon	Conde	Harrisburg	Lennox	Platte	Viborg
Baltic	Corsica	Hartford	Leola	Pollock	Volga
Belle Fourche	Crooks	Hayti	Madison	Presho	Wagner
Beresford	Custer	Hecla	Marion	Pukwana	Wakonda
Big Stone City	Dallas	Henry	Martin	Rapid City	Wall
Bison	Deadwood	Hermosa	McIntosh	Redfield	Warner
Bonesteel	Dell Rapids	Herreid	McLaughlin	Reliance	Watertown
Bowdle	Delmont	Highmore	Menno	Roscoe	Waubay
Box Elder	DeSmet	Hill City	Midland	Rosholt	Webster
Brandon	Doland	Hot Springs	Milbank	Salem	Wessington
Bridgewater	Dupree	Hoven	Miller	Scotland	Springs
Britton	Eagle Butte	Howard	Mission	Selby	White
Brookings	Edgemont	Hudson	Mitchell	Sioux Falls	White Lake
Bruce	Elk Point	Humboldt	Mobridge	Sisseton	White River
Bryant	Elkton	Hurley	Montrose	Spearfish	Whitewood
Buffalo	Emery	Huron	Mt. Vernon	Springfield	Willow Lake
Burke	Estelline	Ipswich	Murdo	Stickney	Wilmot
Canistota	Ethan	Irene	New Effington	Sturgis	Winner
Canton	Eureka	Jefferson	New Underwood	Summerset	Woonsocket
Carthage	Faith	Kadoka	Newell	Summit	Worthing
Castlewood	Faulkton	Kennebec	North Sioux City	Tabor	Yankton
Centerville	Flandreau	Keystone	Oacoma	Tea	
Chamberlain	Ft. Pierre	Kimball	Onida	Timber Lake	

Counties
Membership: 4,201

Percentage of total active members: 9.9%
Units: 65

Aurora	Codington	Grant	Jones	Minnehaha	Tripp
Beadle	Corson	Gregory	Kingsbury	Moody	Todd
Bennett	Custer	Haakon	Lake	Pennington	Turner
Bon Homme	Davison	Hamlin	Lawrence	Perkins	Union
Brookings	Day	Hand	Lincoln	Potter	Walworth
Brown	Deuel	Hanson	Lyman	Roberts	Yankton
Brule	Dewey	Harding	Marshall	Sanborn	Ziebach
Butte	Douglas	Hughes	McCook	Spink	
Campbell	Edmunds	Hutchinson	McPherson	Springdale	
Charles Mix	Fall River-	Hyde	Meade	Township	
Clark	Oglala Lakota	Jackson	Mellette	Stanley	
Clay	Faulk	Jerauld	Miner	Sully	

Other Public Entities
Membership: 668

Percentage of total active members: 1.6%
Units: 104

Aberdeen Housing Auth	Faulkton Area Med Center	Mina Lake Sani & Water Dist
Angostura Irrigation Dist	First District Assoc of Local Gov	Miner County Cons Dist
Assoc School Boards of SD	Grant County Cons	Minnehaha County Cons Dist
Aurora County Cons Dist	Gregory County Cons	Mitchell Housing & Redev
B-Y Water Dist	Haakon County Cons Dist	N.E. Council of Govt
Battle Creek Fire Protection Dist	Hamlin County Cons	Pennington County Housing Dev
Beadle County Cons Dist	Hand County Cons Dist	Perkins County Cons Dist
Belle Fourche Irrigation	Harding County Cons Dist	Piedmont Fire Protection Dist
Black Hawk Water Users Dist	Heartland Consumer Power Dist	Pierre Housing & Redev
Black Hills Council of Local Govt	Hill City Ambulance Dist	Planning & Dev Dist III
Box Elder Rural Fire Protection Dist	Hill City Fire Protection Dist	Potter County Cons Dist
Brookings County Cons Dist	Hot Springs Housing & Redev	Powder House Pass Comm Imp Dist
Brown County Conservation	Hughes County Cons	Randall Community Water
Brule-Butte Cons Dist	Hutchinson County Cons	Rapid Valley Sanitary Dist
Burke Housing & Redev	Hyde County Cons Dist	Redfield Housing
Butte County Ambulance	James River Water Dev Dist	Roberts Cons Board
Butte County Cons Dist	Jerauld Cty Cons Dist	School Admin. Of SD
Butte-Meade Water Dist	Keystone Fire Protection	Sioux Falls Airport Authority
Campbell County Cons Dist	Kingsbury Cons Dist	Sisseton Housing & Redev
Canton Housing and Redev Com	Lake Madison Sanitary Dist	SD Assoc of County Commissioners
Cement Plant	Lake Poinsett Sanitary Dist	SD High School Activities Assoc
Central Plains Water	Lead-Deadwood Sanitary Dist	SD Housing Dev Authority
Central SD Enhancement Dist	Lemmon Housing Authority	SD Municipal League
Charles Mix Cons Dist	Lennox Housing & Redev	SD Pharmacists Assoc.
Clark County Cons	Lincoln County Cons	SD Science & Technology Auth
Codington County Cons	Madison Housing & Redev	Southeastern Council of Gov.
Dakota Dunes Improvement Dist	Marshall County Cons	Southern Missouri Recycle & Waste
Dakota Valley Fire	Marshall County Hospital	Spink County Cons Dist
Davison Cons Dist	McCook Lake Sanitary Dist	State Bar of SD
Day County Cons	McPherson County Cons Dist	Tri-County Conservation
Deuel County Cons	Meade County Housing & Redev	Tripp County Water Users Dist
East Dakota Water Dev	Mellette County Cons Dist	Walworth County Cons
Edmunds County Cons Dist	Metro Communications	War Hawk Emergency Mgmt Dist
Fall River Water Users Dist	Milbank Housing & Redev	Watertown Housing Auth
Faulk Cons Dist	Miller Housing & Redev	

County	FY 2023 members receiving benefits	Annualized benefits	County	FY 2023 members receiving benefits	Annualized benefits
Aurora	130	2,203,811	Jackson	55	994,390
Beadle	550	11,375,916	Jerauld	85	1,465,752
Bennett	56	939,755	Jones	38	893,877
Bon Homme	340	5,924,667	Kingsbury	247	4,714,374
Brookings	1,691	46,616,277	Lake	483	10,991,889
Brown	1,392	31,286,822	Lawrence	1,110	25,292,693
Brule	162	3,543,452	Lincoln	521	9,846,483
Buffalo	3	55,111	Lyman	110	1,950,625
Butte	352	6,128,878	Marshall	208	3,755,966
Campbell	63	958,334	McCook	174	3,582,083
Charles Mix	249	5,119,222	McPherson	77	1,263,252
Clark	141	2,194,023	Meade	809	16,417,994
Clay	709	19,557,306	Mellette	60	830,643
Codington	924	22,549,103	Miner	82	1,732,293
Corson	54	1,012,256	Minnehaha	4,612	113,275,652
Custer	418	7,827,633	Moody	214	3,551,256
Davison	638	14,994,925	Oglala		
Day	232	4,244,531	Lakota	21	384,596
Deuel	139	2,330,583	Pennington	3,814	89,703,620
Dewey	115	1,978,554	Perkins	94	1,403,767
Douglas	97	1,742,720	Potter	114	2,137,410
Edmunds	118	2,156,842	Roberts	291	5,210,969
Fall River	343	5,478,813	Sanborn	94	1,624,116
Faulk	134	1,947,263	Spink	456	8,124,945
Grant	211	4,138,065	Stanley	258	6,455,288
Gregory	180	3,137,087	Sully	66	1,037,915
Haakon	67	1,135,265	Todd	70	1,352,860
Hamlin	220	3,863,705	Tripp	211	3,704,171
Hand	121	2,042,750	Turner	273	4,854,786
Hanson	63	1,111,687	Union	361	7,276,781
Harding	42	624,650	Walworth	235	4,418,360
Hughes	1,579	44,631,984	Yankton	999	21,421,257
Hutchinson	272	5,139,507	Ziebach	28	581,741
Hyde	62	773,250			
Total benefits payable by county				28,137	\$629,016,551

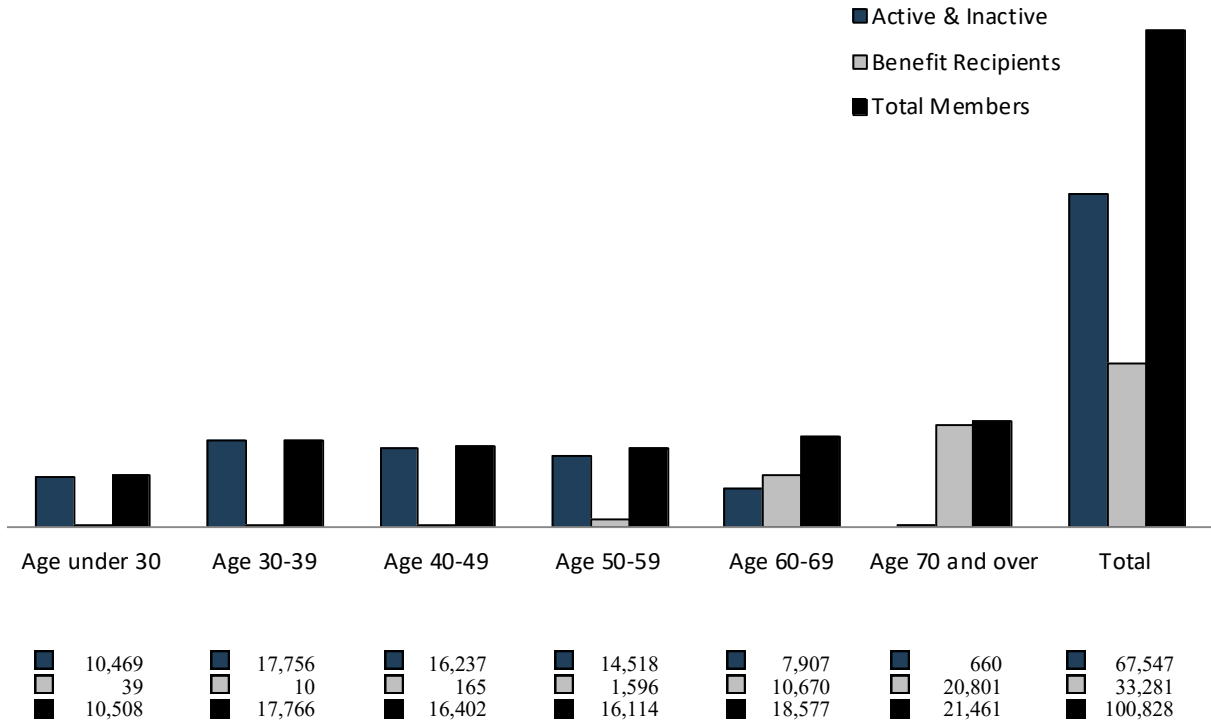
SDRS Benefits Paid

SDRS Benefits Paid by County of Residence

State	Members receiving benefits	Annualized benefits	State	Members receiving benefits	Annualized benefits
Arizona	452	10,116,135	North Dakota	278	4,481,897
California	112	1,963,404	Texas	257	5,426,339
Colorado	268	5,036,174	Wisconsin	154	2,807,597
Florida	245	5,379,607	Wyoming	161	1,982,261
Iowa	344	5,845,832			
Minnesota	789	13,557,682	Other states and foreign countries	1,496	26,771,963
Montana	127	2,322,991			
Nebraska	461	7,146,117			
Total benefits payable outside South Dakota				5,144	\$92,837,999
Total benefit recipients and benefits payable				<u>33,281</u>	<u>\$721,854,550</u>

SDRS Benefits Paid Outside of South Dakota

Membership by Age



Membership by County of Residence

Active, Inactive, and Retired Members

County	Total members	County	Total members	County	Total members
Aurora	351	Faulk	363	Mellette	241
Beadle	1,559	Grant	585	Miner	237
Bennett	288	Gregory	468	Minnehaha	15,750
Bon Homme	947	Haakon	210	Moody	556
Brookings	5,195	Hamlin	679	Oglala	
Brown	3,877	Hand	300	Lakota	343
Brule	539	Hanson	277	Pennington	10,580
Buffalo	11	Harding	126	Perkins	276
Butte	1,067	Hughes	4,889	Potter	299
Campbell	154	Hutchinson	737	Roberts	826
Charles Mix	796	Hyde	143	Sanborn	265
Clark	391	Jackson	190	Spink	1,178
Clay	2,311	Jerauld	216	Stanley	708
Codington	2,746	Jones	131	Sully	194
Corson	244	Kingsbury	700	Todd	498
Custer	972	Lake	1,497	Tripp	663
Davison	1,781	Lawrence	2,908	Turner	807
Day	582	Lincoln	2,336	Union	1,178
Deuel	455	Lyman	306	Walworth	716
Dewey	508	Marshall	541	Yankton	2,704
Douglas	269	McCook	531	Ziebach	143
Edmunds	390	McPherson	236		
Fall River	1,020	Meade	2,552	Out of state/ Other	15,292
				Total membership	100,828

Membership by Group

	Active members			Inactive members			Total members
	Vested	Non-vested	Total active	Vested	Non-vested	Total inactive	
Board of Regents							
Female	1,177	385	1,562	782	371	1,153	2,715
Male	1,093	392	1,485	763	418	1,181	2,666
Total	2,270	777	3,047	1,545	789	2,334	5,381
County General							
Female	1,237	476	1,713	516	490	1,006	2,719
Male	1,007	393	1,400	332	399	731	2,131
Total	2,244	869	3,113	848	889	1,737	4,850
County Public Safety							
Female	145	117	262	50	136	186	448
Male	561	265	826	150	277	427	1,253
Total	706	382	1,088	200	413	613	1,701
Judicial							
Female	29	0	29	1	0	1	30
Male	34	2	36	1	0	1	37
Total	63	2	65	2	0	2	67
Municipal General							
Female	1,158	570	1,728	528	813	1,341	3,069
Male	1,630	698	2,328	474	595	1,069	3,397
Total	2,788	1,268	4,056	1,002	1,408	2,410	6,466
Municipal Public Safety							
Female	74	58	132	23	24	47	179
Male	773	333	1,106	145	171	316	1,422
Total	847	391	1,238	168	195	363	1,601
Public School & Board of Regents Classified							
Female	4,835	2,380	7,215	2,606	3,771	6,377	13,592
Male	1,852	919	2,771	671	1,424	2,095	4,866
Total	6,687	3,299	9,986	3,277	5,195	8,472	18,458
State General							
Female	3,051	940	3,991	1,179	1,303	2,482	6,473
Male	2,203	686	2,889	728	688	1,416	4,305
Total	5,254	1,626	6,880	1,907	1,991	3,898	10,778
State Public Safety and Penitentiary							
Female	195	75	270	58	126	184	454
Male	578	177	755	140	280	420	1,175
Total	773	252	1,025	198	406	604	1,629
Teachers							
Female	7,668	1,349	9,017	2,603	871	3,474	12,491
Male	2,529	450	2,979	823	288	1,111	4,090
Total	10,197	1,799	11,996	3,426	1,159	4,585	16,581
Cement Plant							
Female	0	0	0	3	0	3	3
Male	10	0	10	22	0	22	32
Total	10	0	10	25	0	25	35
Grand Total							
Female	19,569	6,350	25,919	8,349	7,905	16,254	42,173
Male	12,270	4,315	16,585	4,249	4,540	8,789	25,374
Total	31,839	10,665	42,504	12,598	12,445	25,043	67,547

Benefit Recipients by Group

	Retirement benefits		Disability benefits		Survivor benefits		Total benefits	
	2023	2022	2023	2022	2023	2022	2023	2022
Board of Regents								
Male	1,225	1,199	2	3	35	38	1,262	1,240
Female	890	847	6	4	326	316	1,222	1,167
Total	2,115	2,046	8	7	361	354	2,484	2,407
County General								
Male	979	955	9	10	68	74	1,056	1,039
Female	1,177	1,123	13	15	327	314	1,517	1,452
Total	2,156	2,078	22	25	395	388	2,573	2,491
County Public Safety								
Male	372	352	7	5	6	7	385	364
Female	68	63	6	5	42	44	116	112
Total	440	415	13	10	48	51	501	476
Judicial								
Male	58	60	0	0	0	0	58	60
Female	11	10	0	0	20	20	31	30
Total	69	70	0	0	20	20	89	90
Municipal General								
Male	1,178	1,133	15	15	48	45	1,241	1,193
Female	963	914	10	11	305	295	1,278	1,220
Total	2,141	2,047	25	26	353	340	2,519	2,413
Municipal Public Safety								
Male	612	593	15	15	0	0	627	608
Female	16	16	3	2	112	109	131	127
Total	628	609	18	17	112	109	758	735
Public School & Board of Regents Classified								
Male	1,524	1,476	26	29	268	262	1,818	1,767
Female	4,642	4,467	35	38	407	396	5,084	4,901
Total	6,166	5,943	61	67	675	658	6,902	6,668
State General								
Male	2,314	2,279	25	22	204	191	2,543	2,492
Female	2,594	2,513	40	48	676	656	3,310	3,217
Total	4,908	4,792	65	70	880	847	5,853	5,709
State Public Safety and Penitentiary								
Male	583	567	6	7	5	5	594	579
Female	97	91	1	2	91	91	189	184
Total	680	658	7	9	96	96	783	763
Teachers								
Male	2,718	2,687	8	7	395	379	3,121	3,073
Female	6,586	6,405	20	21	618	610	7,224	7,036
Total	9,304	9,092	28	28	1,013	989	10,345	10,109
Cement Plant								
Male	166	168	2	3	0	0	168	171
Female	21	21	0	0	36	35	57	56
Total	187	189	2	3	36	35	225	227
Department of Labor								
Male	64	65	0	0	5	5	69	70
Female	76	81	0	0	14	14	90	95
Total	140	146	0	0	19	19	159	165
Grand Total								
Male	11,793	11,534	115	116	1,034	1,006	12,942	12,656
Female	17,141	16,551	134	146	2,974	2,900	20,249	19,597
Total	28,934	28,085	249	262	4,008	3,906	33,191¹	32,253²

¹ In addition, there are 90 members or beneficiaries as of July 1, 2023, whose benefits are currently suspended but who are entitled to future benefits.

² In addition, there are 95 members or beneficiaries as of July 1, 2022, whose benefits are currently suspended but who are entitled to future benefits.

**Average Benefits
Payments***
Last 10 Fiscal Years

Retirement effective dates	Years of credited service							Average
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
Period 7/1/2013—6/30/2014								
Average monthly benefit	618	565	723	1,021	1,407	1,948	2,746	1,409
Average final average salary	34,927	38,589	38,756	43,057	43,358	46,517	52,059	43,495
Number of retired members	75	229	195	152	159	174	263	1,247
Period 7/1/2014—6/30/2015								
Average monthly benefit	389	533	831	1,138	1,517	1,942	2,807	1,493
Average final average salary	41,146	39,288	41,706	41,238	44,422	48,450	53,088	45,140
Number of retired members	79	240	215	168	188	218	318	1,426
Period 7/1/2015—6/30/2016								
Average monthly benefit	323	392	772	1,025	1,489	2,198	2,802	1,441
Average final average salary	45,322	33,944	41,635	41,269	45,914	53,496	54,154	44,818
Number of retired members	80	211	209	173	167	178	279	1,297
Period 7/1/2016—6/30/2017								
Average monthly benefit	345	547	813	1,146	1,555	2,173	2,980	1,595
Average final average salary	37,727	42,105	46,370	45,787	47,832	53,824	58,227	49,249
Number of retired members	88	209	215	206	146	221	338	1,423
Period 7/1/2017—6/30/2018								
Average monthly benefit	362	521	810	1,185	1,592	2,318	3,083	1,620
Average final average salary	37,558	41,416	43,287	47,260	50,336	57,132	60,047	49,789
Number of retired members	93	208	239	181	167	180	339	1,407
Period 7/1/2018—6/30/2019								
Average monthly benefit	250	425	678	1,020	1,621	2,103	3,078	1,636
Average final average salary	46,523	44,326	42,151	47,136	51,984	53,639	63,383	51,910
Number of retired members	98	221	258	209	216	260	458	1,720
Period 7/1/2019—6/30/2020								
Average monthly benefit	210	407	702	1,407	1,657	2,342	3,077	1,644
Average final average salary	38,189	43,703	43,635	47,142	54,879	60,553	63,698	52,774
Number of retired members	99	242	231	200	204	218	435	1,629
Period 7/1/2020—6/30/2021								
Average monthly benefit	197	410	750	1,078	1,614	2,339	3,086	1,630
Average final average salary	39,892	42,233	47,095	48,959	53,911	61,108	62,756	52,935
Number of retired members	90	257	249	220	241	210	438	1,705
Period 7/1/2021—6/30/2022								
Average monthly benefit	215	450	740	1,053	1,666	2,298	3,228	1,650
Average final average salary	39,267	43,769	46,613	48,069	55,173	59,756	66,412	53,693
Number of retired members	106	272	223	233	237	214	430	1,715
Period 7/1/2022—6/30/2023								
Average monthly benefit	221	451	785	1,077	1,574	2,213	3,160	1,588
Average final average salary	39,333	47,096	49,607	48,792	53,100	60,355	65,866	54,148
Number of retired members	97	275	210	208	250	200	381	1,621

* Note: Not all tables include Class C membership

Historical Views

Benefit Recipients and Benefits Paid

Group	2016	2017	2018	2019	2020	2021	2022	2023
Board of Regents	1,962	2,038	2,106	2,159	2,228	2,302	2,407	2,484
County general	2,061	2,120	2,176	2,242	2,321	2,405	2,491	2,573
County public safety	325	347	360	398	424	462	476	501
Judicial	75	80	87	92	92	91	90	89
Municipal general	1,792	1,865	1,966	2,099	2,203	2,283	2,413	2,519
Municipal public safety	602	618	630	653	672	707	735	758
Public school & Board of Regents classified	5,074	5,312	5,541	5,777	6,032	6,353	6,668	6,902
State general	4,905	4,995	5,139	5,251	5,392	5,539	5,709	5,853
State public safety & penitentiary	571	603	636	688	722	754	763	783
Teachers	8,811	8,997	9,200	9,471	9,717	9,941	10,109	10,345
Cement Plant	242	243	240	239	234	231	227	225
Department of Labor	—	—	—	—	—	175	165	159
Total benefit recipients	26,420	27,218	28,081	29,069	30,037	31,243	32,253	33,191
Suspended members or beneficiaries ¹	134	123	113	127	130	80	95	90
Total benefits paid during period	\$487,053,001	\$517,012,353	\$542,300,333	\$572,351,398	\$602,352,394	\$635,766,143	\$665,067,430	\$707,072,236
Average benefits paid during period	\$18,435	\$18,995	\$19,312	\$19,689	\$20,054	\$20,349	\$20,620	\$21,303

Active and Inactive Members

Group	2016	2017	2018	2019	2020	2021	2022	2023
Board of Regents	4,640	4,796	4,966	5,065	5,119	5,100	5,206	5,381
County general	4,213	4,245	4,317	4,395	4,456	4,594	4,719	4,850
County public safety	1,137	1,202	1,278	1,302	1,412	1,492	1,612	1,701
Judicial	65	64	63	65	66	66	69	67
Municipal general	5,045	5,231	5,380	5,476	5,672	5,898	6,120	6,466
Municipal public safety	1,152	1,208	1,281	1,333	1,368	1,425	1,506	1,601
Public school & Board of Regents classified	14,656	15,126	15,418	15,600	16,182	16,832	17,688	18,458
State general	9,848	10,080	10,154	10,169	10,306	10,455	10,619	10,778
State public safety & penitentiary	1,397	1,436	1,470	1,516	1,600	1,631	1,629	1,629
Teachers	15,280	15,467	15,534	15,521	15,755	15,818	16,276	16,581
Cement Plant	61	55	51	47	44	41	38	35
Total active and inactive members	57,494	58,910	59,912	60,489	61,980	63,352	65,482	67,547

¹ This line represents the additional number of members or beneficiaries as of July 1 of the given year whose benefits are currently suspended but who are entitled to future benefits.

Benefit and Expenses by Type

	Benefits					Refunds		Total benefits & refunds	Admin. expenses
	Retirement benefits	Disability benefits	Survivor benefits	Supp. Pension benefits	Variable Ret. Acct. benefits	Member refund benefits	Survivor refund benefits		
FY 2014	387,535,490	4,292,862	33,967,464	28,112	—	22,085,301	2,581,484	450,490,713	3,857,226
FY 2015	415,583,635	4,216,593	36,453,062	44,134	—	23,800,904	2,396,543	482,494,871	3,911,222
FY 2016	443,826,905	4,005,759	39,173,616	46,721	—	21,435,281	2,008,200	510,496,482	3,944,641
FY 2017	471,526,048	3,745,753	41,692,383	48,169	—	21,396,651	2,681,028	541,090,032	4,363,512
FY 2018	495,529,956	3,418,152	43,302,968	49,257	—	19,242,181	2,598,633	564,141,147	4,870,334
FY 2019	523,657,166	3,125,654	45,518,294	50,284	—	19,598,170	4,475,155	596,424,723	5,095,897
FY 2020	551,378,462	3,162,829	47,759,710	51,393	2,181	21,095,721	2,346,081	625,796,377	5,127,029
FY 2021	581,960,638	3,418,517	50,334,664	52,324	33,202	21,207,143	4,201,556	661,208,044	4,905,128
FY 2022	608,413,523	3,473,314	52,985,957	53,152	141,484	27,649,359	3,323,887	696,040,676	4,862,000
FY 2023	646,398,701	3,647,868	56,900,076	54,976	70,615	25,178,813	2,829,198	735,080,247	5,158,204

Changes in Net Position Last 10 Fiscal Years

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Additions										
Member contributions	106,175,381	110,152,580	114,443,295	122,144,961	124,262,387	127,454,956	131,541,783	136,159,404	143,041,545	153,798,895
Employer contributions	112,551,482	109,549,977	114,090,075	121,907,646	124,734,270	127,572,348	131,681,949	136,159,432	143,270,826	154,761,704
Transfer in from related plan	—	—	—	—	—	—	—	56,628,426	—	—
Investment income (loss) (net of expenses)	1,703,240,824	435,682,659	22,836,265	1,431,977,414	911,695,475	583,573,718	192,238,245	2,672,026,722	(91,538,866)	806,061,088
Total additions (deductions) to plan net position	1,921,967,687	655,385,216	251,369,635	1,676,030,021	1,160,692,132	838,601,022	455,461,977	3,000,973,984	194,773,505	1,114,621,687
Deductions										
Benefit payments	425,823,928	456,297,424	487,053,001	517,012,353	542,300,333	572,351,398	602,352,394	635,766,143	665,067,460	707,072,236
Refunds	24,666,785	26,197,447	23,443,481	24,077,679	21,840,814	24,073,325	23,443,984	25,441,901	30,973,246	28,008,011
Administrative expenses	3,857,226	3,911,222	3,944,641	4,363,512	4,870,334	5,095,897	5,127,029	4,905,128	4,862,000	5,158,204
Total deductions from plan net position	454,347,939	486,406,093	514,441,123	545,453,544	569,011,481	601,520,620	630,923,407	666,113,172	700,902,676	740,238,451
Change in net position	1,467,619,748	168,979,123	(263,071,488)	1,130,576,477	591,680,651	237,080,402	(175,461,430)	2,334,860,812	(506,129,171)	374,383,236

**Principal
Participating
Employers**

2023

Participating government	Covered employees	Rank	Percentage of total system
State of South Dakota	7,961	1	19%
Board of Regents	4,393	2	10%
Sioux Falls Schools	3,387	3	8%
Rapid City Schools	1,477	4	3%
City of Rapid City	874	5	2%
Harrisburg Schools	799	6	2%
City of Sioux Falls	735	7	2%
Watertown Schools	691	8	2%
Pennington County	690	9	2%
Minnehaha County	583	10	1%
All Other	20,914		49%
Total (503 governments)	<u>42,504</u>		<u>100%</u>

2013

Participating government	Covered employees	Rank	Percentage of total system
State of South Dakota	8,074	1	21%
Board of Regents	4,500	2	12%
Sioux Falls Schools	2,910	3	7%
Rapid City Schools	1,868	4	5%
City of Rapid City	740	5	2%
Watertown Schools	659	6	2%
City of Brookings and Hospital	625	7	2%
Pennington County	599	8	1%
Minnehaha County	507	9	1%
Aberdeen Schools	488	10	1%
All Other	17,624		46%
Total (474 governments)	<u>38,594</u>		<u>100%</u>

**Retired Members
By Type and
Amount of Benefit***

As of June 30, 2023

**Class A, Class B Public
Safety and Judicial**

Amount of monthly benefit	Normal	Early Unreduced	Early Reduced	Disability	Survivor of Active Member	Spouse Option	Survivor of Retired Member	Level Income Unreduced	Level Income Reduced
\$1—\$250	804	149	1,313	5	37	0	388	1	31
\$251—\$500	944	202	1,866	16	132	0	504	4	85
\$501—\$750	816	277	1,524	48	89	0	416	11	70
\$751—\$1,000	709	270	1,241	58	91	0	335	22	70
\$1,001—\$1,250	613	314	874	38	79	3	321	41	76
\$1,251—\$1,500	521	490	645	37	57	6	283	69	48
\$1,501—\$1,750	423	536	466	11	38	7	223	94	53
\$1,751—\$2,000	336	663	333	5	29	6	192	166	51
Over \$2,000	1,955	7,329	821	31	100	13	605	1,314	123
	<u>7,121</u>	<u>10,230</u>	<u>9,083</u>	<u>249</u>	<u>652</u>	<u>35</u>	<u>3,267</u>	<u>1,722</u>	<u>607</u>

* Note: Not all tables include Class C membership

NOTES



A series of 25 horizontal solid lines, evenly spaced, providing a template for writing notes.



For more information on the South Dakota Retirement System, please contact:

South Dakota Retirement System
PO Box 1098
Pierre, South Dakota 57501-1098

Phone: (605) 773-3731
Fax: (605) 773-3949
Toll-Free: (888) 605-SDRS (7377)

Website: www.sd.gov/sdrs

A comprehensive brochure explaining the system's provisions is available online or upon request.

SOUTH DAKOTA RETIREMENT SYSTEM

222 East Capitol Avenue

PO Box 1098

Pierre, SD 57501

Toll-Free (888) 605-SDRS

Local (605) 773-3731