

North Dakota



Retirement & Investment Office

An Agency of the State of North Dakota



Comprehensive Annual Financial Report

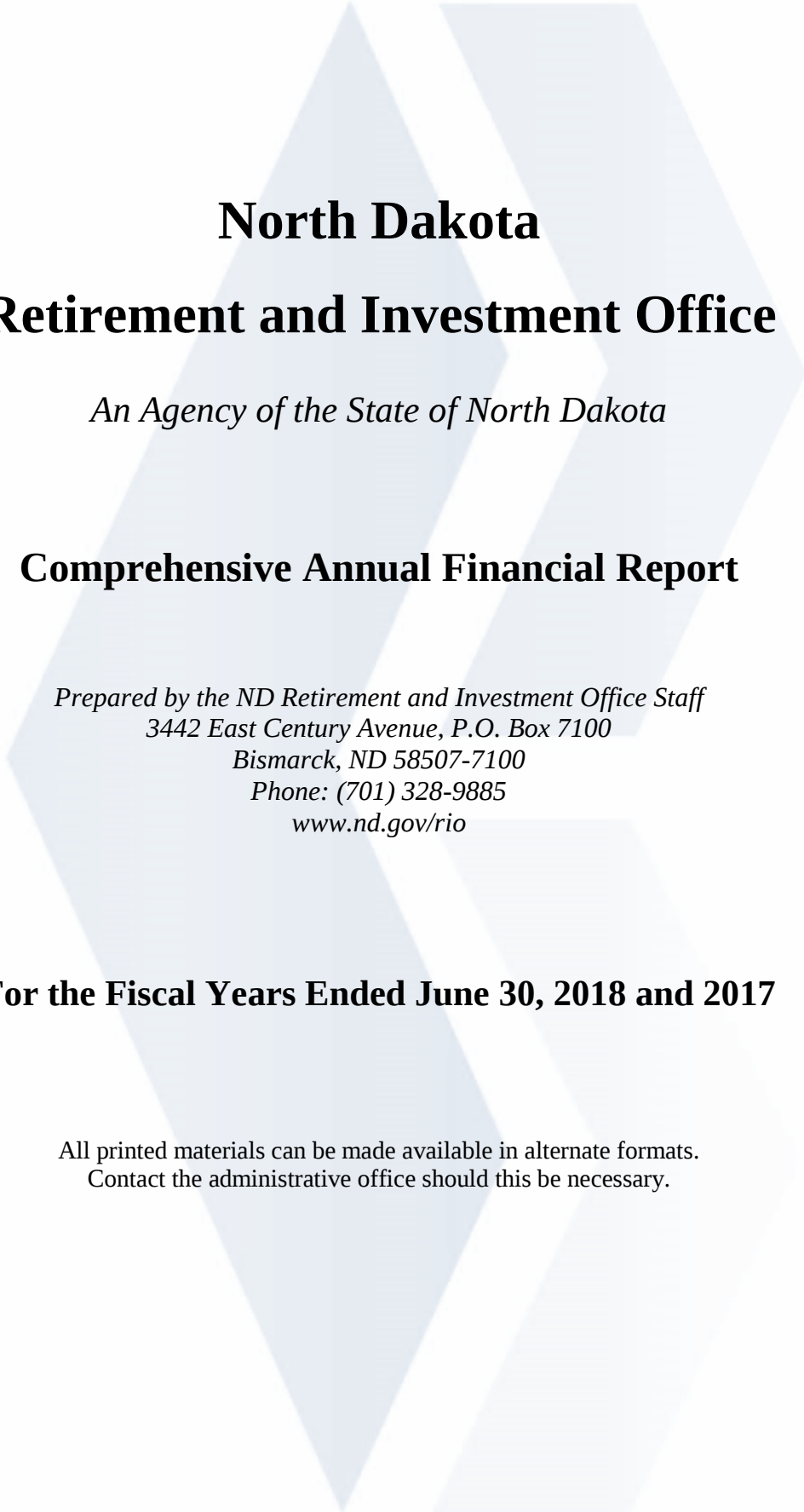
For the Fiscal Years Ended June 30, 2018 & 2017

2

0

1

8



North Dakota

Retirement and Investment Office

An Agency of the State of North Dakota

Comprehensive Annual Financial Report

*Prepared by the ND Retirement and Investment Office Staff
3442 East Century Avenue, P.O. Box 7100
Bismarck, ND 58507-7100
Phone: (701) 328-9885
www.nd.gov/rio*

For the Fiscal Years Ended June 30, 2018 and 2017

All printed materials can be made available in alternate formats.
Contact the administrative office should this be necessary.

Table of Contents

Introductory Section

Letter of Transmittal	2
North Dakota Retirement and Investment Office (RIO)	8
North Dakota State Investment Board (SIB)	9
North Dakota Teachers' Fund for Retirement (TFFR)	10
Administrative Organization	11
Consulting and Professional Services	12
Government Finance Officers Association (GFOA)	
Certificate of Achievement	13
Public Pension Coordinating Council (PPCC) Recognition Award for Administration	14

Financial Section

Independent Auditors' Report	16
Management's Discussion and Analysis	18
Basic Financial Statements:	
<i>Fund Financial Statements</i>	
Statements of Net Position – Fiduciary Funds	24
Statements of Changes in Net Position – Fiduciary Funds	25
Notes to the Financial Statements	26
Required Supplementary Information:	
Schedule of Changes in Net Pension Liability (NPL) and Related Ratios – ND Teachers' Fund for Retirement	63
Schedule of Employer Contributions – ND Teachers' Fund for Retirement	64
Schedule of Investment Returns – ND Teachers' Fund for Retirement	65
Schedule of Employer's Share of Net Pension & OPEB Liability – ND Public Employees Retirement System	66
Schedule of Employer Pension and OPEB Contributions ND Public Employees Retirement System	67
Combining and Individual Fund Financial Statements:	
Combining Statement of Net Position – Investment Trust Funds – Fiduciary Funds	68
Combining Statement of Changes in Net Position – Investment Trust Funds – Fiduciary Funds	70
Supplementary Information:	
Pension and Investment Trust Funds – Schedule of Administrative Expenses	72
Schedule of Appropriations – Budget Basis – Fiduciary Funds	73
Pension and Investment Trust Funds – Schedule of Consultant Expenses	74
Pension and Investment Trust Funds – Schedule of Investment Expenses	75

Investment Section

Investment Director's Letter	78
Investment Performance Summary	82
Schedule of Investment Consultants and Results	83
Largest Holdings	90
Schedule of Investment Fees	92
Schedule of Commissions	94

Investment Objectives and Policy Guidelines and Actual Asset Allocation (by Fund):

Pension Pool Participants

Teachers' Fund for Retirement	95
Public Employees Retirement System	99
Bismarck City Employee Pension Plan	103
Bismarck City Police Pension Plan	106
City of Grand Forks Pension Plan	109
Grand Forks Park District Pension Plan	112

Insurance Pool Participants

Workforce Safety & Insurance Fund	115
State Fire and Tornado Fund	118
State Bonding Fund	121
Petroleum Tank Release Compensation Fund	123
Insurance Regulatory Trust Fund	126
State Risk Management Fund	129
State Risk Management Workers Comp. Fund	132
ND Cultural Endowment Fund	135
Budget Stabilization Fund	137
North Dakota Association of Counties	139
City of Bismarck Deferred Sick Leave	141
NDPERS Group Insurance Account	143
City of Fargo FargoDome Permanent Fund	145
ND State Board of Medicine Fund	147
Lewis & Clark Interpretive Center Endowment Fund	150

Individual Investment Accounts

Legacy Fund	153
Retirement Plan for Employees of Job Service ND	156
Retiree Health Insurance Credit Fund	159
Tobacco Prevention and Control Fund	162

Actuarial Section

Actuary's Certification Letter	166
Summary of Actuarial Valuation Results	169
Summary of Actuarial Assumptions and Methods	170
Schedule of Active Members	174
Schedule of Retirees and Beneficiaries	174
Analysis of Change in Actuarially Determined Contribution (ADC)	175
Development of Unfunded Actuarial Accrued Liability (UAAL)	175
Solvency Test	176
Schedule of Funding Progress	176
Summary of Plan Provisions	177
Summary of Plan Changes	181

Statistical Section

Changes in Net Position-Pension Trust Fund	186
Benefit and Refund Deductions by Type	186
Schedule of Contribution Rates	187
Principal Participating Employers	188
Schedule of Participating Employers	189
Schedule of Retirees Residing in ND by County	191
Schedule of Average Benefit Payments	192
Schedule of Retirees by Benefit Amount	193
Schedule of Retirees by Benefit Type	193
Schedule of New Retirees by Type	194
Summary of Operations	195



INTRODUCTORY SECTION



3442 East Century Avenue | P.O. Box 7100 | Bismarck, ND 58507-7100
Telephone: 701-328-9885 | Toll Free: 800-952-2970 | Fax: 701-328-9897 | www.nd.gov/rio

December 1, 2018

Members of the
North Dakota State Investment Board
North Dakota Teachers' Fund for Retirement Board

Dear Board Members:

We present to you the June 30, 2018, Comprehensive Annual Financial Report (CAFR) for the North Dakota Retirement and Investment Office (RIO). The report is a complete review of the financial, investment, and actuarial conditions of the two programs for which you are responsible. Responsibility for both the accuracy of the data, and the completeness and fairness of the presentation, rests with the management of RIO.

Generally accepted accounting principles (GAAP) require that management provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. RIO's MD&A can be found immediately following the report of the independent auditors in the Financial Section.

RIO is an agency of the State of North Dakota. The agency was created by the 1989 Legislative Assembly to capture administrative and investment cost savings in the management of two important long-standing state programs – the retirement program of the Teachers' Fund for Retirement (TFFR) and the investment program of the State Investment Board (SIB).

Established in 1913, TFFR is one of the oldest retirement plans in the nation. TFFR is a qualified defined benefit public pension plan covered under Section 401(a) of the Internal Revenue Code. North Dakota Century Code Chapter 15-39.1 contains the actual language governing the fund. The plan covers North Dakota public school teachers and administrators. The TFFR plan is funded on an actuarial reserve basis. Benefit funding comes from member and employer contributions and investment earnings. TFFR serves nearly 10,900 teachers from 214 employer groups and pays benefits to more than 8,700 retirees and beneficiaries. High quality member services and outreach programs are offered to members and employers as part of the continuing effort to keep them informed about the retirement program.

The SIB is responsible for setting policies and procedures guiding the investment of over \$13.7 billion in assets for seven pension funds and 18 non-pension funds. Their investments are divided into two investment trust funds and four individual investment accounts. Individual investment guidelines for each fund can be found in the Investment Section. These guidelines include goals and objectives, risk tolerance, liquidity constraints, asset allocation and portfolio restrictions specific to each fund's unique circumstances. When creating investment pools to implement the asset allocations for each client fund, the SIB takes all of these guidelines into consideration in order to best meet the objectives of each fund and safeguard fund assets. The following table details the participants in each trust fund as of June 30, 2018:

	Fair Value in millions	% Of Pool	FY2018 Return		Fair Value in millions	% Of Pool	FY2018 Return
PENSION POOL PARTICIPANTS				INSURANCE POOL PARTICIPANTS			
Teachers' Fund for Retirement	\$2,485.84	43.5%	9.11%	Workforce Safety & Insurance Fund	\$1,923.12	88.6%	5.34%
Public Employees Retirement System	3,024.22	52.9%	9.19%	State Fire and Tornado Fund	23.07	1.1%	5.32%
Bismarck City Employee Pension Fund	99.18	1.7%	7.86%	State Bonding Fund	3.41	0.2%	1.07%
Bismarck City Police Pension Fund	40.11	0.7%	8.36%	Petroleum Tank Release Fund	6.17	0.3%	1.13%
City of Grand Forks Pension Fund	63.63	1.1%	9.46%	Insurance Regulatory Trust Fund	5.64	0.3%	4.53%
Grand Forks Park District Pension Fund	6.77	0.1%	9.33%	State Risk Management Fund	4.96	0.2%	5.14%
Subtotal Pension Pool Participants	\$5,719.75	100.0%		State Risk Management Workers Comp	5.36	0.2%	6.03%
INDIVIDUAL INVESTMENT ACCOUNTS				Cultural Endowment Fund	0.45	0.0%	8.27%
Legacy Fund	\$5,577.32		7.57%	Budget Stabilization Fund	113.60	5.2%	0.32%
Retiree Health Insurance Credit Fund	126.61		7.15%	ND Assoc. of Counties (NDACo) Fund	5.91	0.3%	4.48%
Job Service of North Dakota	95.69		3.15%	City of Bismarck Deferred Sick Leave	0.73	0.0%	4.66%
Tobacco Prevention and Control Trust Fund	54.37		1.63%	PERS Group Insurance	31.61	1.5%	0.41%
				State Board of Medical Examiners	2.25	0.1%	3.12%
				City of Fargo FargoDome Permanent Fund	44.63	2.1%	7.64%
				Lewis & Clark Interpretive Center Endowment	0.70	0.0%	*
				Subtotal Insurance Pool Participants	2,171.60	100.0%	
TOTAL ASSETS UNDER MANAGEMENT					\$13,745.33		

Columns may not foot due to rounding.

The pension investment pool is made up of only qualified pension funds whose monies must be invested exclusively for the benefit of their participants. The insurance investment pool is made up of mainly insurance-type funds, but also includes other funds that do not qualify as pension funds and would like to benefit from the cost savings of being pooled with other funds' assets. All of these funds are invested in accordance with the "Prudent Investor Rule."

An important aspect of the prudent investor rule is that individual investments are considered not in isolation but in the context of the trust portfolio as a whole. Some new opportunities may appear risky when viewed alone. However, when part of a diversified mix of investments in stocks, bonds and other assets, they can increase returns often without increasing the overall portfolio risk and, in some cases, may help decrease the overall portfolio's risk.

The pension investment pool was created in July 1989 with the pooling of selected investments of TFFR and the Public Employees Retirement System (PERS). Assets from the City of Bismarck Employees and Police pension funds were added later that same fiscal year. In April 1994, Job Service of North Dakota made their initial contribution to the pool. Other additions to this pool have occurred as follows:

- The City of Fargo Employees pension plan joined the pension pool in December 2007.
- The City of Grand Forks Employees pension plan joined in May 2009.
- The Grand Forks Park District pension plan began participating in the pension pool in December 2009.

Two plans have left the pension pool since its inception.

- The City of Fargo Employees pension plan withdrew the bulk of their assets from the SIB in December 2013, and their remaining assets in fiscal year 2016.
- The assets for the Job Service plan were removed from the pension pool during fiscal year 2016 after a de-risking strategy was implemented by the PERS Board due to the plan being a closed plan with a diminishing number of participants and remaining life. The assets are now being managed within an individual investment account.

The insurance investment pool began in December 1993 with the pooling of the assets of the WSI, Fire and Tornado, Bonding, Insurance Regulatory, and Petroleum Tank Release funds.

Other additions to this pool have occurred as follows:

- The Risk Management Fund was added in October 1996.

- Two North Dakota Association of Counties (NDACo) funds were added during fiscal year 1999, in January and March.
- The City of Bismarck Deferred Sick Leave and PERS Group Insurance funds were both added in July 1999.
- The City of Fargo FargoDome Permanent Fund was added in October 2002.
- The Risk Management Workers Compensation Fund was added in October 2003.
- The Cultural Endowment Fund was added by the 2005 legislature and funded in July 2005.
- The Budget Stabilization Fund joined the pool in September 2005 upon reaching statutorily designated levels.
- The State Board of Medical Examiners Fund joined the pool in April, 2014.
- The ND Parks and Recreation Department’s Lewis & Clark Interpretive Center Endowment Fund joined the pool in April, 2018.

Eight funds have left the insurance investment pool after having been included in it at some point during its existence.

- The Veterans’ Home Improvement Fund was added in July 1996 and removed in August 1997.
- The National Guard Tuition Waiver Fund was added in June 1996 and removed in June 1999.
- The Veterans Post War Trust Fund was added in December 1997 and left the pool in September 2005.
- The Veterans Cemetery Trust joined the pool in August 1997 and was removed in August 2007.
- The ND Health Care Trust Fund was added to the pool in July 2001 and left the pool in June 2012.
- The National Board Certification Fund joined in July 2009 and was removed in September 2011.
- Additionally, the two NDACo funds were combined into one fund in July, 2010.
- The Legacy Fund assets were removed from the insurance investment pool during fiscal year 2015 after being added to SIB management in September 2011 and subsequently pooled during implementation of their diversified asset allocation in fiscal year 2014. Pooling the assets during implementation allowed for a more efficient realization of the Legacy Fund’s target asset allocation. However, after implementation, it was determined that better transparency would result and the investment objectives of this endowment-like fund could be more effectively achieved outside of the insurance pool structure.

MAJOR INITIATIVES

TFFR Retirement Program

- TFFR Member Online Services was moved into production providing active and retired members with secure online access to personalized information about their retirement account.
- Studied potential risks, benefits, and costs to upgrade or replace current outdated pension administration software to a more technologically advanced and secure web based system (pending legislative approval).
- Continued to identify and implement cost savings initiatives in the member and employer outreach programs by utilizing more electronic education materials.
- Implemented 2018 federal and state tax withholding changes for retirees from Tax Cuts & Jobs Act.
- Governor Burgum re-appointed Mel Olson to represent retired members on the TFFR Board from July 1, 2018 to June 30, 2023.
- Governor Burgum appointed Cody Mickelson to represent active members and complete the unexpired term of Michael Gessner from July 1, 2018 to June 30, 2021.

SIB Investment Program

- Investment details by trust fund can be found in the Investment Section.
- Initiatives completed by the SIB during the year included:
 - ✓ Completed an asset allocation and spending study for the Legacy Fund which confirmed the current target asset allocations of 50% equity, 35% debt and 15% real assets.
 - ✓ Established a new securities litigation committee and refined existing policy to enhance SIB oversight of the increasingly complex and expanding securities litigation environment.

- ✓ Conducted extensive infrastructure manager due diligence within the pension investment pool and Legacy Fund in order to improve expected risk adjusted returns.
- ✓ Expanded continuing professional education initiatives for board members with a keen focus on best practices for institutional investors and the importance of strong governance.
- ✓ Completed a search for two core fixed income managers in the pension investment pool and Legacy Fund in order to maintain strong downside risk protection.
- ✓ Continued to successfully renegotiate investment management fees throughout the year while generating over \$100 million of incremental income from the prudent use of active management (after deducting fees and expenses) for the fiscal year ended June 30, 2018.

AWARDS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to RIO for its comprehensive annual financial report for the fiscal year ended June 30, 2017. This was the twentieth consecutive year that RIO has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This 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. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

TFFR also received the 2018 Public Pension Standards Award for Administration from the Public Pension Coordinating Council. To receive the award, the retirement system must certify that it meets specific professional standards for a comprehensive benefit program, actuarial valuations, financial reporting and audit, investments, and communications to members.

FINANCIAL INFORMATION

RIO is subject to very strict operational controls. Well-established internal controls are in place, segregation of duties is maintained, and an internal audit program is in effect. In addition, an annual external financial audit is performed and the results are reported to the Legislative Audit and Fiscal Review Committee (LAFRC). Although internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives, and the cost of a control should not exceed the benefits to be derived, RIO believes the internal controls that are in place have been designed to reduce risks of material misstatements.

CliftonLarsonAllen LLP conducted the external financial audit under the direction of the North Dakota State Auditor. The auditor's opinion was unmodified for the agency for the year ended June 30, 2018.

The tables below summarize RIO's additions and deductions for the current and prior fiscal years:

Pension Trust Fund (TFFR)	6/30/2018 (in millions)	6/30/2017 (in millions)	Incr/(Decr) \$ (in millions)	Incr/(Decr) %
Additions	\$ 380	\$ 435	\$ (55)	-12.5%
Deductions	210	199	11	5.7%
Net Change	\$ 170	\$ 236	\$ (66)	-27.9%

In the pension trust fund, additions decreased due to slightly weaker financial markets. Deductions increased because the average benefit increased from the previous year, as did the number of retirees receiving benefits throughout the year.

Investment Trust Funds	6/30/2018 (in millions)	6/30/2017 (in millions)	Incr/(Decr) \$ (in millions)	Incr/(Decr) %
Additions	\$ 1,624	\$ 1,648	\$ (24)	-1.4%
Deductions	338	912	\$ (574)	-63.0%
Net Change	\$ 1,287	\$ 736	\$ 551	74.8%

In the investment trust funds, additions decreased slightly as weaker financial markets offset an increase in new deposits. Deductions decreased after an increase in the prior year due to the amount of unit redemptions requested from the individual funds, specifically the Budget Stabilization Fund, which was tapped into as a result of lower than anticipated State General Fund revenues in the previous biennium.

FUNDING STATUS

The objective of the TFFR pension fund is to accumulate sufficient funds to meet all expected future obligations to participants. Member and employer contribution rates are established by statute and are currently 11.75% and 12.75%, respectively. The contribution rates will remain in effect until TFFR is 100% funded on an actuarial basis. At that point, the member and employer contribution rates will revert to 7.75%. The rates are intended to be sufficient to pay TFFR's normal cost and to amortize TFFR's unfunded actuarial accrued liability (UAAL) over a period of 25 years beginning July 1, 2018, although at any given time the statutory rates may be insufficient.

In order to determine the adequacy of the 12.75% statutory employer contribution rate, it is compared to the actuarially determined contribution (ADC). The ADC is equal to the sum of the employer normal cost rate, and the level percentage of pay required to amortize the UAAL over the 30-year closed period that began July 1, 2013 (25 years remaining as of July 1, 2018). For this calculation, payroll is assumed to increase 3.25% per year. As of July 1, 2018, the ADC is 12.94%, compared to 12.99% last year. This is greater than the 12.75% rate currently required by law. The decrease in ADC is primarily driven by an actuarial gain on assets and demographic experience emerging more favorably than assumed.

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) increased from last year. The funded ratio at July 1, 2017, was 63.7%, while it is 65.4% as of July 1, 2018. Based on the market values rather than actuarial values of assets, the funded ratio increased to 65.5% from 63.2% last year.

The plan has a net investment gain of \$4.6 million from previous years that has not yet been recognized in the actuarial value of assets because of the five-year smoothing. This unrecognized asset gain is due to market losses during FY 2015 and FY 2016 offset by slightly higher market gains in FY2017 and FY2018. As these gains are recognized over the next four years, the funded ratio is expected to slightly increase, assuming the plan earns 7.75% in the future.

The following table summarizes the actuarial valuation of the TFFR plan. A detailed discussion of funding is provided in the Actuarial Section of this report.

	July 1, 2018 (in millions)	July 1, 2017 (in millions)
Actuarial Accrued Liability (AAL)	\$ 3,863.5	\$ 3,734.0
Actuarial value of assets (AVA)	2,526.0	2,379.8
Unfunded actuarial accrued liability (UAAL)	1,337.5	1,354.2
Funded ratio	65.4%	63.7%

FINANCIAL REPORTING FOR PENSIONS

Government Accounting Standards Board (GASB) Statement 67 for accounting and financial reporting of pension liabilities became effective in FY 2014. The GASB rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for actual pension funding purposes.

The following table summarizes the components of the net pension liability of TFFR. A detailed discussion is provided in the Financial Section of this report.

	July 1, 2018 (in millions)	July 1, 2017 (in millions)
Total pension liability (TPL)	\$ 3,863.5	\$ 3,734.0
Plan fiduciary net position (FNP)	2,530.7	2,360.5
Net pension liability (NPL)	1,332.9	1,373.5
Plan FNP as % of TPL	65.5%	63.2%

INVESTMENT ACTIVITIES

The investment policies and strategies for each of the funds under the SIB can be found in the Investment Section of this report. Each fund's policy is determined by the individual fund's governing body and presented to the SIB for acceptance. Once accepted, the policy is used as a guide to determine participation in the applicable pools. The policies are designed to provide safeguards on assets while optimizing return based on each fund's risk parameters. Additionally, each investment manager is given explicit guidelines identifying the types of investments that are acceptable within each portfolio, based on asset allocation expectations of the individual funds in the pools.

The return information presented in the Investment Section is calculated with the assistance of our consultant, Callan Associates, based on data supplied by our custodian, The Northern Trust Company, and the individual investment managers. The investment return calculations were prepared using a monthly time-weighted rate of return methodology based upon market values and are subject to independent review.

PROFESSIONAL SERVICES

Professional consultants are selected by the TFFR Board and the SIB to perform professional services that are essential to the effective and efficient operation of the retirement and investment programs. An opinion from the certified public accountant and the actuary are included in this report. The consultants chosen by the boards are listed in the Introductory Section of this report.

Respectfully yours,



DAVID HUNTER
Executive Director/
Chief Investment Officer



FAY KOPP
Deputy Executive Director/
Chief Retirement Officer



CONNIE L. FLANAGAN
Chief Financial Officer

NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE

As of June 30, 2018

Mission

The North Dakota Retirement and Investment Office exists in order that:

- ◆ SIB clients receive investment returns, consistent with their written investment policies and market variables, in a cost-effective investment manner and under the Prudent Investor Rule.
- ◆ Potential SIB clients have access to information regarding the investment services provided by the SIB.
- ◆ TFFR benefit recipients receive their retirement benefits in a cost effective and timely manner.
- ◆ TFFR members have access to information which will allow them to become knowledgeable about the issues and process of retirement.
- ◆ SIB clients and TFFR benefit recipients receive satisfactory services from the boards and staff of the office.

Administrative Staff



David Hunter
*Executive Director/
Chief Investment Officer*



Fay Kopp
*Deputy Executive Director/
Chief Retirement Officer*



Darren Schulz, CFA
*Deputy Chief
Investment Officer*

Supervisory Staff

Connie L. Flanagan
Fiscal & Investment Management

Shelly Schumacher
*Retirement Services
& Public Information*

Sara Sauter
Internal Audit

Bonnie Heit
Administrative Services

Richard Nagel
Information Services

NORTH DAKOTA STATE INVESTMENT BOARD

Board Members as of June 30, 2018

Investment Program

Investment Process

The ND State Investment Board believes that an investment program must be built and managed like any good business, with a clear statement of mission, overall objectives, roles and responsibilities, and policies and guidelines. Major issues include:

Asset allocation targets:

- Setting appropriate benchmarks.
- Finding the right managers.
- Monitoring the program.
- Searching for appropriate new opportunities.

To ensure rigorous attention to all aspects of the investment program, the SIB follows an established investment process. This process involves three phases:

- Investment policy development/modification
- Implementation/monitoring
- Evaluation



Brent Sanford
*Chair
Lt. Governor*



Rob Lech
*Vice Chair
TFFR Trustee*



Kelly Schmidt
State Treasurer



Jon Godfreed
*State Insurance
Commissioner*



Cindy Ternes, CPA
*Workforce Safety &
Insurance Designee*



Jodi Smith
*University and
School Land
Commissioner*



Adam Miller
PERS Trustee



Mike Gessner
TFFR Trustee



Mel Olson
TFFR Trustee



Yvonne Smith
PERS Trustee



Troy Seibel
PERS Trustee

NORTH DAKOTA TEACHERS' FUND FOR RETIREMENT

Board of Trustees as of June 30, 2018

Retirement Program

Mission

The mission of the Teachers' Fund for Retirement, a trust fund, is to advocate for, develop, and administer a comprehensive retirement program for all trust fund members within the resources available.

Goals

Investment and Funding Goals:

- Improve the Plan's funding status to protect and sustain current and future benefits.
- Minimize the employee and employer contributions needed to fund the Plan over the long term.
- Avoid substantial volatility in required contribution rates and fluctuations in the Plan's funding status.
- Accumulate a funding surplus to provide increases in retiree annuity payments to preserve the purchasing power of their retirement benefits.

Service Goals:

- Administer accurate, prompt, and efficient pension benefits program.
- Deliver high quality, friendly service to members and employers.
- Provide educational outreach programs including pre-retirement seminars and individual counseling sessions.



Mike Gessner
President
(active teacher)



Rob Lech
Vice President
(active administrator)



Toni Gumeringer
Trustee
(active teacher)



Mike Burton
Trustee
(retired member)



Mel Olson
Trustee
(retired member)



Kelly Schmidt
State Treasurer

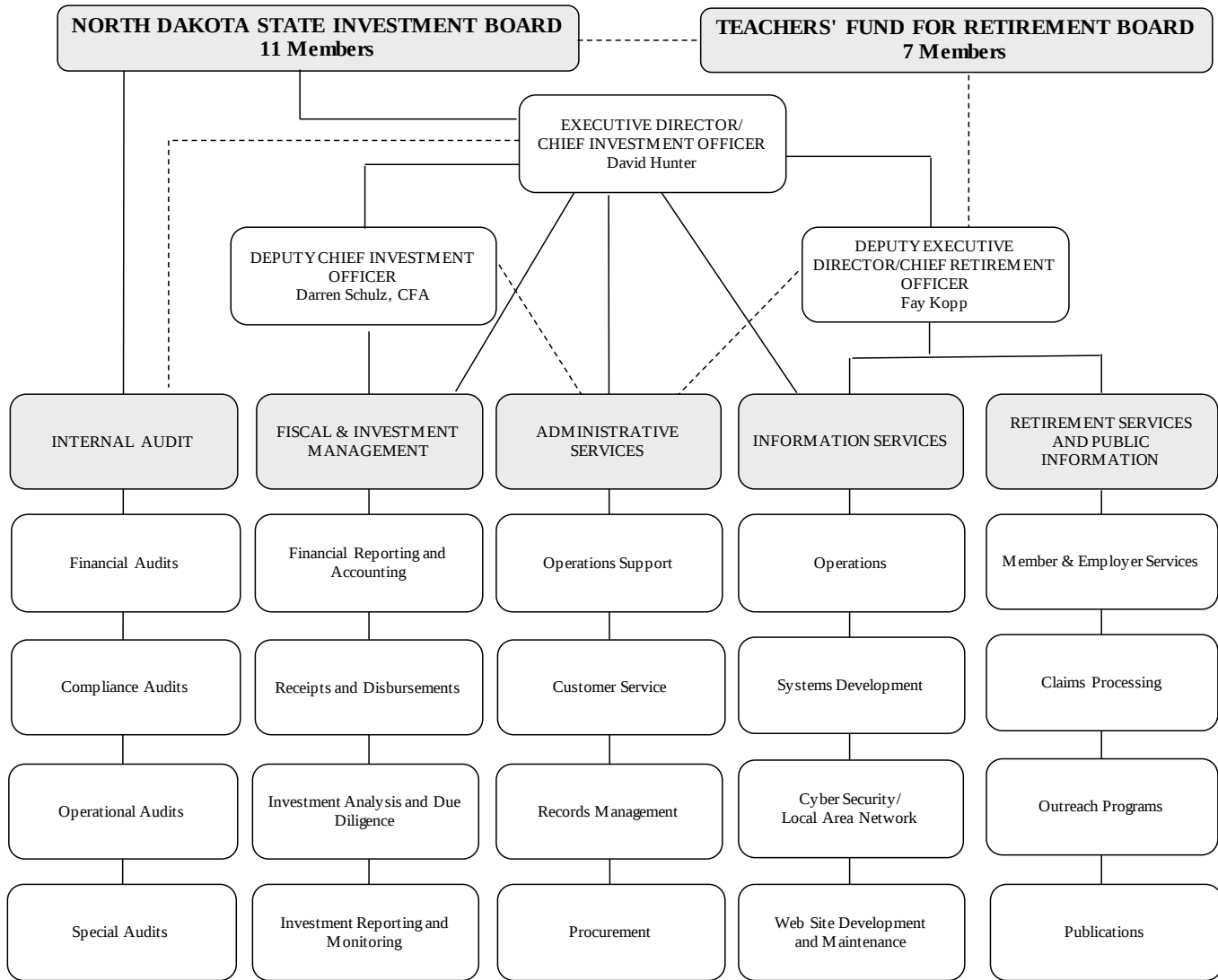


Kirsten Baesler
*State Superintendent
of Public Instruction*

NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE

ADMINISTRATIVE ORGANIZATION

JUNE 30, 2018



See following page for a listing of professionals who provide services to the Retirement and Investment Office and pages 92-94 in the Investment Section for a summary of fees paid to investment professionals.

NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE

CONSULTING AND PROFESSIONAL SERVICES

AS OF JUNE 30, 2018

Actuary

The Segal Company
Chicago, Illinois

Auditor

CliftonLarsonAllen LLP
Baltimore, Maryland

Legal Counsel

North Dakota Attorney General's
Office
Bismarck, North Dakota

Kasowitz, Benson, Torres & Friedman
New York, New York

K&L Gates
Boston, Massachusetts

Information Technology

Blackrock Financial Management, Inc.
New York, New York

Bloomberg LP
New York, New York

CPAS Systems Inc.
Toronto, Ontario

SS&C Advent Software, Inc.
San Francisco, CA

Master Custodian

The Northern Trust Company
Chicago, Illinois

Investment Consultant and Performance Measurement

Callan Associates Inc.
San Francisco, California

Investment Consulting (Fee Analysis)

Novarca North America LLC
Palo Alto, California

Investment Consulting (PE Monitoring)

Adams Street Partners, LLC
Chicago, Illinois

Investment Consulting (Litigation Monitoring & Filing)

Financial Recovery Technologies, LLC
Medford, Massachusetts

Investment Managers

Adams Street Partners, LLC
Chicago, Illinois

Atlanta Capital Investment Managers
Atlanta, Georgia

Ares Management LLC
New York, New York

Axiom International Investors
Greenwich, Connecticut

Blackrock Private Equity Partners
New York, New York

Capital Group
Los Angeles, California

Cerberus Capital Management, LP
New York, New York

Corsair Capital
New York, New York

Dimensional Fund Advisors
Chicago, Illinois

EIG Energy Partners
Los Angeles, California

Epoch Investment Partners, Inc.
New York, New York

Goldman Sachs Asset Management
New York, New York

Grosvenor Capital Management
New York, NY

Hearthstone Homebuilding Investors,
LLC
Encino, California

INVESCO Realty Advisors
Dallas, Texas

InvestAmerica L&C, LLC
Cedar Rapids, Iowa

I Squared Capital
New York, New York

J.P. Morgan Invest. Management, Inc.
New York, New York

Loomis Sayles & Company
Boston, Massachusetts

Investment Managers (cont.)

Los Angeles Capital Management
Los Angeles, California

LSV Asset Management
Chicago, Illinois

Manulife Asset Management, LLC
McLean, Virginia

Matlin Patterson Global Advisers LLC
New York, New York

Northern Trust Asset Management
Chicago, Illinois

Parametric Portfolio Associates
DBA The Clifton Group
Minneapolis, Minnesota

PIMCO
Newport Beach, California

Prudential Investment Management
Newark, New Jersey

Quantum Energy Partners
Houston, Texas

The Rohatyn Group
New York, New York

SEI Investments Management Co.
Oaks, Pennsylvania

State Street Global Advisors
Boston, Massachusetts

Timberland Investment
Resources, LLC
Atlanta, Georgia

The Vanguard Group
Valley Forge, Pennsylvania

Wellington Trust Company, NA
Boston, Massachusetts

Wells Capital Management, Inc.
Menomonee Falls, Wisconsin

Western Asset Management Co.
Pasadena, California

William Blair Investment Management
Chicago, Illinois



Government Finance Officers Association

**Certificate of
Achievement
for Excellence
in Financial
Reporting**

Presented to

North Dakota

Retirement and Investment Office

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2017

Christopher P. Morill

Executive Director/CEO



Public Pension Coordinating Council

***Recognition Award for Administration
2018***

Presented to

North Dakota Teachers' Fund For Retirement

In recognition of meeting professional standards for
plan 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, reading 'Alan H. Winkle', is positioned above the printed name and title.

Alan H. Winkle
Program Administrator



FINANCIAL SECTION



CliftonLarsonAllen LLP
CLAconnect.com

INDEPENDENT AUDITORS' REPORT

Governor Doug Burgum
The Legislative Assembly
David Hunter, Executive Director/CIO
State Investment Board
Teachers' Fund for Retirement Board
North Dakota Retirement and Investment Office

Report on the Financial Statements

We have audited the accompanying financial statements of the North Dakota Retirement and Investment Office (RIO), a department of the State of North Dakota, which comprise the statement of net position – fiduciary funds as of June 30, 2018 and 2017, and the related statements of changes in net position – fiduciary funds for the years then ended, and the related notes to the financial statements, which collectively comprise RIO's basic financial statements, and the combining and individual fund financial statements as of and for the years ended June 30, 2018 and 2017, as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes 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.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audit in accordance with 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. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of RIO as of June 30, 2018 and 2017, and the respective changes in financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America. Also, in our opinion, the combining and individual fund financial statements referred to above present fairly, in all material respects, the financial position of each of the individual funds of RIO as of June 30, 2018 and 2017, and the results of the changes in financial position of such funds for the years then ended, in conformity with accounting principles generally accepted in the United States of America.



Emphasis of Matter

As discussed in Note 1, the financial statements of RIO are intended to present the financial position and the changes in financial position of only that portion of the State of North Dakota that is attributable to the transactions of RIO. They do not purport to, and do not, present fairly the financial position of the State of North Dakota as of June 30, 2018 and 2017, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters*Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the schedules of changes in NPL and related ratios - ND Teachers' Fund for Retirement and employer contributions - ND Teachers' Fund for Retirement, investment returns - ND Teachers' Fund for Retirement, employer's share of NPL and NOL – ND Public Employees Retirement System and employer contributions – ND Public Employees Retirement System and related notes, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, 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.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise RIO's basic financial statements and the combining and individual fund financial statements. The schedules of administrative expenses, consultant expenses, investment expenses, and appropriations – budget basis – fiduciary funds, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

These schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such 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 information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The Introductory, Investment, Actuarial and Statistical Section, as listed in the table of contents, have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Audit Standards*, we have also issued our report dated October 31, 2018, on our consideration of RIO'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 RIO'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 RIO's internal control over financial reporting.



CliftonLarsonAllen LLP

Baltimore, Maryland
October 31, 2018

North Dakota Retirement and Investment Office

Management's Discussion and Analysis

June 30, 2018 and 2017

Our discussion and analysis of the ND Retirement and Investment Office's (RIO) financial performance provides an overview of RIO's financial activities for the fiscal years ended June 30, 2018 and 2017. Please read it in conjunction with the basic financial statements, which follow this discussion.

RIO administers two fiduciary funds, a pension trust fund for the ND Teachers' Fund for Retirement (TFFR) and an investment trust fund for the ND State Investment Board (SIB) consisting of 23 investment clients in two investment pools and four individual investment accounts.

Financial Highlights

Total net position increased from the previous fiscal year in the fiduciary funds by \$1.5 billion (11.8%) and \$972 million (8.6%) in FY2018 and FY2017, respectively. Approximately 61% of the FY2018 increase and 90% of the FY2017 increase is due to the growth of the Legacy Fund. The Legacy Fund was created by a constitutional amendment in 2010. The amendment provides that 30% of oil and gas gross production and oil extraction taxes on oil produced after June 30, 2011, be transferred to the Legacy Fund. Transfers into the Legacy Fund totaled \$529.9 million and \$399.5 million and net investment income exceeded \$361 million and \$480 million in FY2018 and FY2017, respectively.

Total additions in the fiduciary funds for FY2018 decreased by \$78.1 (3.7%) and increased over \$1 billion (93.3%) in FY2017. Net investment income decreased by \$302 million in FY2018 after rising by \$1.1 billion in FY2017, due to stronger financial markets in FY2017 over FY2018. There was an increase in new purchases of units in the investment program in FY2018 due to stronger oil and gas tax collections affecting the Legacy Fund and the Budget Stabilization Fund after a decrease in FY2017. Total fiduciary fund purchases of units increased \$223.2 million (34.4%) in FY2018 after decreasing by \$115.1 million (15.1%) in FY2017.

Deductions in the fiduciary funds decreased by \$562.8 million (50.7%) in FY2018 after increasing the prior year by \$656.4 million (144.5%). The vast majority of the large swing between fiscal years was due to the drawdown of \$572.5 million from the

Budget Stabilization Fund in FY2017 to cover the State's income shortfall during the 2015-17 biennium. Payments to TFFR members in the form of benefits and refunds increased by \$11.5 million (5.8%) and \$10.5 million (5.7%) in FY2018 and FY2017, respectively. These increases represented a rise in the total number of retirees drawing retirement benefits from the pension fund as well as an increase in the retirement salaries on which the benefits of new retirees are based.

As of June 30, 2018 and 2017, the TFFR pension plan had a Net Pension Liability (NPL) of \$1.33 billion and \$1.37 billion, and Plan Fiduciary Net Position as a percent of Total Pension Liability (TPL) of 65.5% and 63.2%, respectively.

Overview of the Financial Statements

This report consists of four parts – management's discussion and analysis (this section), the basic financial statements, required supplementary information, and additional supplementary information that presents combining statements for the investment trust funds. The basic financial statements include fund financial statements that focus on individual parts of RIO's activities (fiduciary funds).

The financial statements also include notes that explain some of the information in the financial statements and provide more detailed data. The statements are followed by a section of required supplementary information that further explains and supports the information in the financial statements. In addition to these required elements, we have included additional supplementary information, including combining statements that provide details about our investment trust funds, each of which are added together and presented in single columns in the basic financial statements.

Fund Financial Statements

The fund financial statements provide detailed information about RIO's activities. Funds are accounting devices that RIO uses to keep track of specific sources of funding and spending for particular purposes.

RIO uses fiduciary funds as RIO is the trustee, or

North Dakota Retirement and Investment Office

Management's Discussion and Analysis

June 30, 2018 and 2017

fiduciary, for TFFR (a pension plan) and SIB (investment trust funds). RIO is responsible for ensuring that the assets reported in these funds are used for their intended purposes. All of RIO's fiduciary activities are reported in a statement of net position and a statement of changes in net position.

Financial Analysis

RIO's fiduciary fund total assets as of June 30, 2018 and 2017, were \$13.8 billion and \$12.4 billion, respectively, and were comprised mainly of investments. Total assets increased by \$1.4 billion (11.5%) and \$932.2 million (8.1%) from each prior

year primarily due to strong financial markets.

Total liabilities as of June 30, 2018 and 2017, were \$54.7 million and \$87.2 million. The majority of the liabilities were comprised of the securities lending collateral payable. Total liabilities decreased by \$32.5 million (37.3%) and \$39.6 million (31.2%) from each prior year due almost entirely to the decrease in securities lending collateral as a result of having fewer securities on loan at year-end.

RIO's fiduciary fund total net position was \$13.8 billion and \$12.3 billion at the close of fiscal years 2018 and 2017, respectively.

North Dakota Retirement and Investment Office

Net Position – Fiduciary Funds

(In Millions)

	2018	2017	Total % Change
Assets			
Investments	\$ 13,696.7	\$ 12,251.5	11.8%
Securities Lending Collateral	48.1	77.7	-38.0%
Receivables	75.2	69.0	9.1%
Cash & Other	20.9	19.3	8.1%
Total Assets	<u>13,840.9</u>	<u>12,417.5</u>	11.5%
Deferred Outflows of Resources			
Deferred outflows related to pensions	<u>1.4</u>	<u>0.6</u>	113.3%
Liabilities			
Obligations under Securities Lending	48.1	77.7	-38.0%
Accounts Payable & Accrued Expenses	<u>6.6</u>	<u>9.5</u>	-30.9%
Total Liabilities	<u>54.7</u>	<u>87.2</u>	-37.3%
Deferred Inflows of Resources			
Deferred inflows related to pensions	<u>0.1</u>	<u>0.1</u>	-13.0%
Total Net Position	<u>\$ 13,787.5</u>	<u>\$ 12,330.8</u>	11.8%

North Dakota Retirement and Investment Office
Management's Discussion and Analysis
June 30, 2018 and 2017

	<u>2017</u>	<u>2016</u>	<u>Total % Change</u>
Assets			
Investments	\$ 12,251.5	\$ 11,278.3	8.6%
Sec Lending Collateral	77.7	116.6	-33.4%
Receivables	69.0	70.5	-2.2%
Cash & Other	19.3	19.9	-2.9%
Total Assets	<u>12,417.5</u>	<u>11,485.3</u>	8.1%
Deferred Outflows of Resources			
Deferred outflows related to pensions	<u>0.6</u>	<u>0.3</u>	126.0%
Liabilities			
Obligations under Securities Lending	77.7	116.6	-33.4%
Accounts Payable & Accrued Expenses	<u>9.5</u>	<u>10.1</u>	-5.5%
Total Liabilities	<u>87.2</u>	<u>126.7</u>	-31.2%
Deferred Inflows of Resources			
Deferred inflows related to pensions	<u>0.1</u>	<u>0.1</u>	-21.9%
Total Net Position	<u>\$ 12,330.8</u>	<u>\$ 11,358.8</u>	8.6%

**North Dakota Retirement and Investment Office
Changes in Net Position – Fiduciary Funds
(In Millions)**

	<u>2018</u>	<u>2017</u>	<u>Total % Change</u>
Additions:			
Contributions	\$ 168.9	\$ 168.1	0.5%
Net Investment Income	963.2	1,265.3	-23.9%
Net Securities Lending Income	1.3	1.2	5.5%
Purchase of Units	<u>871.3</u>	<u>648.1</u>	34.4%
Total Additions	<u>2,004.7</u>	<u>2,082.7</u>	-3.7%
Deductions:			
Payments to TFFR members	208.0	196.5	5.8%
Administrative Expenses	3.8	3.5	9.3%
Redemption of Units	<u>336.2</u>	<u>910.7</u>	-63.1%
Total Deductions	<u>548.0</u>	<u>1,110.7</u>	-50.7%
Total Change in Net Position	<u>\$ 1,456.7</u>	<u>\$ 972.0</u>	49.9%

North Dakota Retirement and Investment Office
Management's Discussion and Analysis
June 30, 2018 and 2017

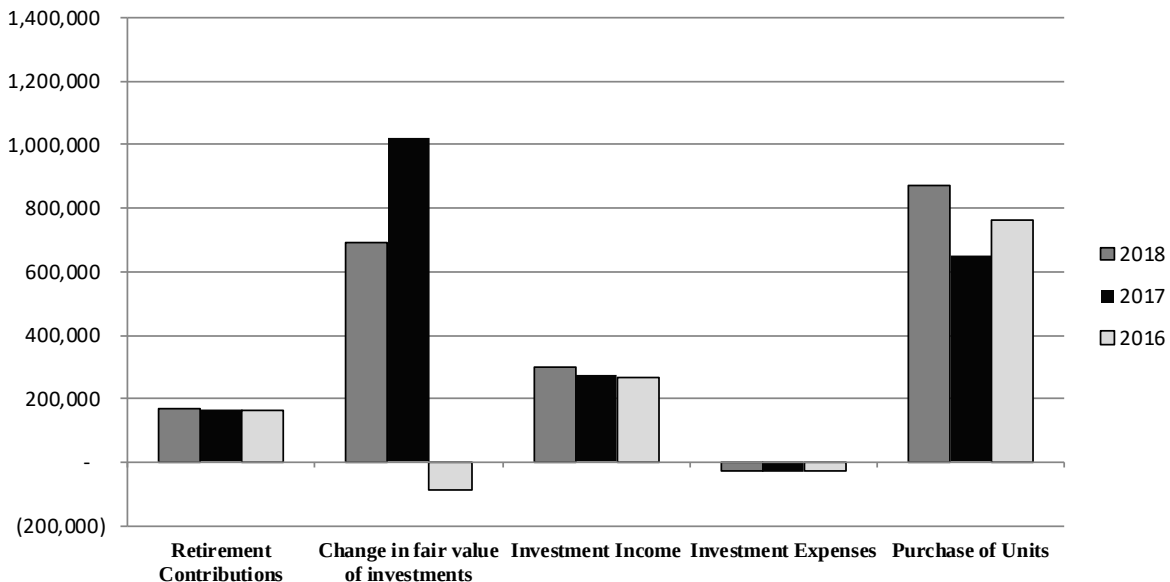
	2017	2016	Total % Change
Additions:			
Contributions	\$ 168.1	\$ 162.0	3.8%
Net Investment Income	1,265.3	151.0	738.1%
Net Securities Lending Income	1.2	1.4	-16.1%
Purchase of Units	648.1	763.2	-15.1%
Total Additions	<u>2,082.7</u>	<u>1,077.6</u>	93.3%
Deductions:			
Payments to TFFR members	196.5	186.0	5.7%
Administrative Expenses	3.5	2.9	19.1%
Redemption of Units	910.7	265.4	243.1%
Total Deductions	<u>1,110.7</u>	<u>454.3</u>	144.5%
Total Change in Net Position	<u>\$ 972.0</u>	<u>\$ 623.3</u>	56.0%

Statement of Changes in Net Position – Additions

Contributions collected by the pension trust fund increased by \$0.8 million (0.5%) and \$6.1 million (3.8%) over the previous fiscal years due to both an increase in the number of active members contributing to the fund and an increase in the average salary of active members. Net investment income (including net securities lending income and net of investment expenses) decreased by \$302

million (23.8%) in FY2018 and increased by \$1.1 billion or 731% in FY2017. This was the result of stronger financial markets in FY2017 versus FY2018. Deposits of funds into the investment trust fund (purchase of units) decreased by \$115.1 million (15.1%) in FY2017 partially due to lower oil and gas tax collections affecting the Legacy Fund; but rebounded slightly in FY2018, resulting in an increase of \$223.2 million (34.45%) over FY2017 deposits.

**Additions to Net Position
(in thousands)**



North Dakota Retirement and Investment Office

Management's Discussion and Analysis

June 30, 2018 and 2017

Statement of Changes in Net Position – Deductions

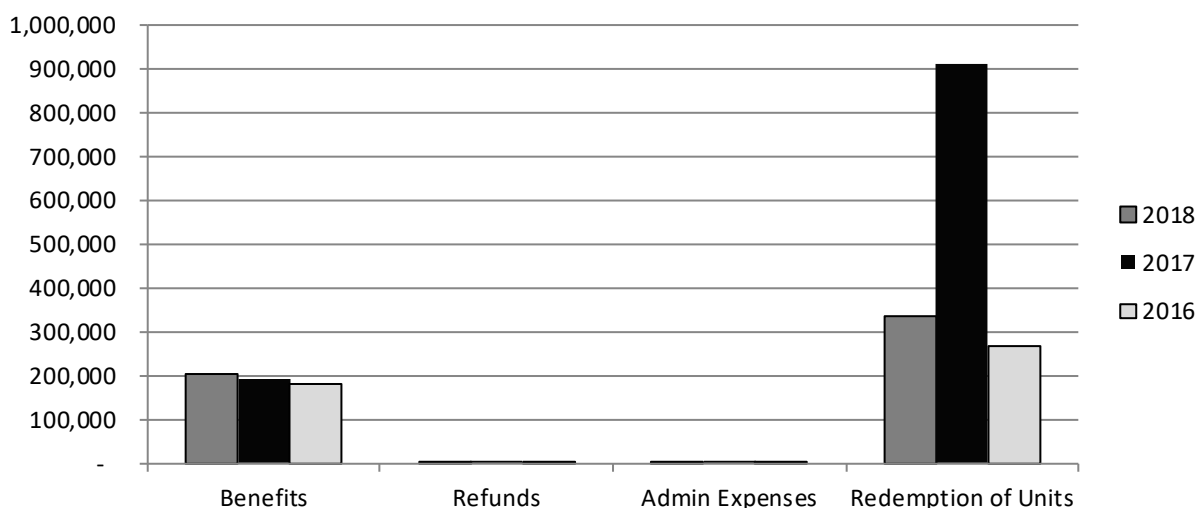
Benefits paid to TFFR plan participants, including partial lump-sum distributions, increased by \$11.3 million (5.9%) and \$10.5 million (5.7%) in FY2018 and FY2017, respectively. The increases are due to an increase in the total number of retirees in the plan as well as an increased retirement salary on which the benefits are based upon. Refunds increased by nearly \$150,000 (2.8%) in fiscal year 2018 and by approximately \$61,000 (1.1%) in fiscal year 2017.

Administrative expenses increased by nearly \$322,000 in fiscal year 2018 and nearly \$559,000 in fiscal year 2017. This increase was mainly due to an

increase in IT contractual services, including the addition of investment risk analysis/monitoring software in the second half of the fiscal year 2017 (a full year in fiscal year 2018), the payment of the biennial retirement administration software maintenance fee in FY2017; and an increase in pension expense each year due to RIO's participation in the NDPERS pension plan.

The redemption of units in the investment trust funds decreased in FY2018 by \$574.5 million and increased in FY2017 by \$645.3 million due almost entirely to the FY2017 drawdown of \$572.5 million in the Budget Stabilization Fund to cover the State's income shortfall during the 2015-17 biennium.

**Deductions from Net Position
(in thousands)**

**Conclusion**

For the fiscal year ended June 30, 2018, the pension investment pool and the Legacy Fund generated net time weighted investment returns of 9.1% and 7.5%, respectively, surpassing their respective policy benchmarks. The TFFR pension plan generated a net time weighted return of 9.1%, also exceeding its policy benchmark. The insurance investment pool also performed well and achieved a net time weighted return of 5.2% last year. Investment returns exceeded long-term expectations in fiscal 2018 due to the continued strength of the equity markets particularly in the United States. Investment

performance benefited from favorable U.S. income tax policy developments which bolstered revenues, margins and capital spending. Global equities earned over 12.3% within the pension trust with the U.S. equity portfolio (up 16.4%) significantly outpacing international equity returns (up 10.1%). Fixed income results were also strong in the U.S. where investment grade debt earned 1.6% and non-investment grade debt earned over 5.1% in FY18 within the pension trust, noting that international debt strategies were largely eliminated during the past year. Real asset performance was mixed with generally strong, above benchmark returns posted in real estate and infrastructure (both up over 7%),

North Dakota Retirement and Investment Office

Management's Discussion and Analysis

June 30, 2018 and 2017

while our timber portfolio lost 2.5% within the pension trust last year. Private equity returns were also disappointing within the pension trust earning slightly over 5.25% the 1-year ended June 30, 2018.

For the fiscal year ended June 30, 2017, the pension investment pool and the Legacy Fund generated net time weighted investment returns of 12.9% and 12.0%, respectively, surpassing their respective policy benchmarks. The TFFR pension plan generated a net time weighted return of 12.9%, also exceeding its policy benchmark. The insurance investment pool also performed well and achieved a net time weighted return of 7.8% last year. Investment returns exceeded long-term expectations in fiscal 2017 due to the surprising strength and resilience of the global financial markets. Investment performance benefitted from relatively low volatility throughout most of last year despite increasing concerns over geopolitical risk in the U.S. and abroad. Global equities earned 19% overall with the pension international equity portfolio (up 21%) outperforming U.S. equity (up 17%). The story was reversed within fixed income, where U.S. centric debt strategies returned over 6% while international debt earned less than 1%. Real asset performance was mixed with strong, above benchmark returns posted in real estate and infrastructure (both up 9%), while our timber portfolio lost 9% in the last year. Private equity returned 11% for the 1-year ended June 30, 2017.

While cumulative returns in the post-credit crisis era have been strong, investors today face numerous challenges in the future that may limit the potential for high market returns and amplify investment risk. First, one could argue that many asset classes and strategies no longer offer compelling valuations for investors. Second, the ever-growing debt burden from unprecedented monetary policy and muted economic growth in a range of economies makes it less and less likely that authorities will be in a position to provide a cushion in a downturn when it occurs. Finally, the specter of the Federal Reserve continuing to raise short-term interest rates in the near future poses a challenge to certain asset classes and strategies to varying degrees. To meet this challenge, the State Investment Board will continue to research strategies and investment options that mitigate and diversify the sources of risk accepted to address funding issues in the challenging years

ahead.

TFFR's funding objective is to meet long-term pension benefit obligations through contributions and investment income. To address TFFR's funding shortfall, the ND State Legislature took action in 2011 and approved legislation to increase contributions (4% member and 4% employer) and modify certain benefits for non-grandfathered members. Increased contribution rates will be in effect until TFFR reaches 100% funding on an actuarial basis. This comprehensive funding recovery plan, along with solid investment performance in the future, is expected to improve TFFR's funding level over the long term.

TFFR's funding level increased from 63.7% to 65.4% on an actuarial basis (and from 63.2% to 65.5% on a market basis) from July 1, 2017 to July 1, 2018. Investment performance for FY2017 and FY2018, and for the previous five years, has been greater than expected, resulting in improvement in TFFR's funding status in 2017 and 2018. Over the long term, the plan's funding level is projected to gradually improve with full funding expected in approximately 30 years, if all actuarial assumptions are met in the future, including the 7.75% investment return assumption. Protecting the long term solvency of the pension plan is the TFFR Board's fiduciary responsibility. The Board will continue to proactively address TFFR funding issues so the plan will be financially strong and sustainable for past, present, and future ND educators.

Contacting RIO Financial Management

This financial report is designed to provide our Boards, our membership, our clients and the general public with a general overview of RIO's finances and to demonstrate RIO's accountability for the money we receive. If you have any questions about this report or need additional information, contact the North Dakota Retirement and Investment Office, PO Box 7100, Bismarck, ND 58507-7100.

North Dakota Retirement and Investment Office
Statement of Net Position – Fiduciary Funds
June 30, 2018 and 2017

	Pension Trust		Investment Trust		Total	
	2018	2017	2018	2017	2018	2017
Assets:						
Investments, at fair value						
Global equities	\$ 1,441,132,463	1,352,547,367	\$ 5,205,817,256	\$ 4,684,388,027	\$ 6,646,949,719	\$ 6,036,935,394
Global fixed income	589,368,951	521,927,872	4,099,552,552	3,538,734,254	4,688,921,503	4,060,662,126
Global real assets	416,937,112	407,547,460	1,788,156,119	1,661,716,577	2,205,093,231	2,069,264,037
Cash equivalents	28,631,157	27,243,767	127,104,537	57,364,379	155,735,694	84,608,146
Total investments	2,476,069,683	2,309,266,466	11,220,630,464	9,942,203,237	13,696,700,147	12,251,469,703
Invested securities lending collateral	7,413,200	12,839,759	40,721,545	64,829,660	48,134,745	77,669,419
Receivables:						
Investment income	9,765,629	8,947,870	38,863,279	33,653,192	48,628,908	42,601,062
Contributions	26,548,463	26,326,188	-	-	26,548,463	26,326,188
Miscellaneous	8,127	7,398	28,001	21,368	36,128	28,766
Total receivables	36,322,219	35,281,456	38,891,280	33,674,560	75,213,499	68,956,016
Due from other state agency	174	36	-	14	174	50
Cash and cash equivalents	20,486,449	19,073,513	410,261	263,961	20,896,710	19,337,474
Equipment & Software (net of depr)	6,749	8,549	-	-	6,749	8,549
Total assets	2,540,298,474	2,376,469,779	11,300,653,550	10,040,971,432	13,840,952,024	12,417,441,211
Deferred outflows of resources						
Related to pensions	813,903	384,391	544,101	252,274	1,358,004	636,665
Liabilities:						
Accounts payable	126,480	191,738	136,431	201,551	262,911	393,289
Investment expenses payable	459,438	1,583,834	2,279,952	5,165,064	2,739,390	6,748,898
Securities lending collateral	7,413,200	12,839,759	40,721,545	64,829,660	48,134,745	77,669,419
Accrued expenses	2,395,362	1,685,809	1,111,661	644,911	3,507,023	2,330,720
Miscellaneous payable	-	-	34,655	16,983	34,655	16,983
Due to other state agencies	11,967	6,613	2,572	1,649	14,539	8,262
Total liabilities	10,406,447	16,307,753	44,286,816	70,859,818	54,693,263	87,167,571
Deferred inflows of resources						
Related to pensions	48,519	55,342	27,917	32,528	76,436	87,870
Net position:						
Restricted for pensions	2,530,657,411	2,360,491,075	-	-	2,530,657,411	2,360,491,075
Held in trust for external investment pool participants:						
Pension pool	-	-	3,233,154,948	2,978,824,123	3,233,154,948	2,978,824,123
Insurance pool	-	-	2,171,169,377	2,035,100,078	2,171,169,377	2,035,100,078
Held in trust for individual investment accounts	-	-	5,852,558,593	4,956,407,159	5,852,558,593	4,956,407,159
Total net position	\$ 2,530,657,411	\$ 2,360,491,075	\$ 11,256,882,918	\$ 9,970,331,360	\$ 13,787,540,329	\$ 12,330,822,435
Each participant unit is valued at \$1.00						
Participant units outstanding			11,256,882,918	9,970,331,360		

The accompanying notes are an integral part of these financial statements.

North Dakota Retirement and Investment Office
Statement of Changes in Net Position – Fiduciary Funds
Year Ended June 30, 2018 and 2017

	Pension Trust		Investment Trust		Total	
	2018	2017	2018	2017	2018	2017
Additions:						
Contributions:						
Employer contributions	\$ 86,675,715	\$ 86,058,868	\$ -	\$ -	\$ 86,675,715	\$ 86,058,868
Member contributions	79,877,611	79,309,153	-	-	79,877,611	79,309,153
Purchased service credit	2,181,106	2,553,200	-	-	2,181,106	2,553,200
Interest, penalties and other	194,028	235,890	-	-	194,028	235,890
Total contributions	168,928,460	168,157,111	-	-	168,928,460	168,157,111
Investment income:						
Net change in fair value of investments	162,026,369	221,797,589	527,542,620	797,372,051	689,568,989	1,019,169,640
Interest, dividends and other income	54,486,768	50,718,890	246,166,774	224,483,911	300,653,542	275,202,801
	216,513,137	272,516,479	773,709,394	1,021,855,962	990,222,531	1,294,372,441
Less investment expenses	5,352,945	6,011,791	21,653,138	23,033,769	27,006,083	29,045,560
Net investment income	211,160,192	266,504,688	752,056,256	998,822,193	963,216,448	1,265,326,881
Securities lending activity:						
Securities lending income	231,448	229,936	1,334,400	1,254,228	1,565,848	1,484,164
Less securities lending expenses	(46,271)	(45,973)	(266,663)	(250,628)	(312,934)	(296,601)
Net securities lending income	185,177	183,963	1,067,737	1,003,600	1,252,914	1,187,563
Purchase of units (\$1 per unit)	-	-	871,266,337	648,096,361	871,266,337	648,096,361
Total additions	380,273,829	434,845,762	1,624,390,330	1,647,922,154	2,004,664,159	2,082,767,916
Deductions:						
Benefits paid to participants	201,648,202	190,029,141	-	-	201,648,202	190,029,141
Partial lump-sum distributions	768,829	1,075,553	-	-	768,829	1,075,553
Refunds	5,561,668	5,411,850	-	-	5,561,668	5,411,850
Administrative expenses	2,128,794	2,173,431	1,669,600	1,303,019	3,798,394	3,476,450
Redemption of units (\$1 per unit)	-	-	336,169,172	910,737,683	336,169,172	910,737,683
Total deductions	210,107,493	198,689,975	337,838,772	912,040,702	547,946,265	1,110,730,677
Change in net position	170,166,336	236,155,787	1,286,551,558	735,881,452	1,456,717,894	972,037,239
Net position:						
Beginning of year	2,360,491,075	2,124,335,288	9,970,331,360	9,234,449,908	12,330,822,435	11,358,785,196
End of Year	\$ 2,530,657,411	\$ 2,360,491,075	\$ 11,256,882,918	\$ 9,970,331,360	\$ 13,787,540,329	\$ 12,330,822,435

The accompanying notes are an integral part of these financial statements.

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Note 1 - Summary of Significant Accounting Policies

RIO is an agency of the State of North Dakota operating through the legislative authority of North Dakota Century Code (NDCC) Chapter 54-52.5 and is considered part of the State of North Dakota financial reporting entity and included in the State of North Dakota's Comprehensive Annual Financial Report.

For financial reporting purposes, RIO has included all funds, and has considered all potential component units for which RIO is financially accountable, and other organizations for which the nature and significance of their relationship with RIO are such that exclusion would cause RIO's financial statements to be misleading or incomplete. The Governmental Accounting Standards Board has set forth criteria to be considered in determining financial accountability. These criteria include appointing a voting majority of an organization's governing body and (1) the ability of RIO to impose its will on that organization or (2) the potential for the organization to provide specific financial benefits to, or impose specific financial burdens on RIO.

Based upon these criteria, there are no component units to be included within RIO as a reporting entity and RIO is part of the State of North Dakota as a reporting entity.

Fund Financial Statement

All activities of RIO are accounted for within the pension and investment trust funds and are shown, by fund, in the fiduciary fund financial statements.

Measurement Focus, Basis of Accounting and Financial Statement Presentation

The financial statements of RIO are reported using the economic resources measurement focus and the accrual basis of accounting.

This measurement focus includes all assets and liabilities associated with the operations of the fiduciary funds on the statements of net position. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless

of the timing of related cash flows.

New Accounting Standards

In fiscal year 2018, RIO implemented GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, ("GASB 75"). The primary objective of this statement is to improve accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB). Due to the immateriality of the amounts in relation to the previous year's financial statements, no prior period adjustments were made to fiscal year 2017 balances; rather, all financial transactions necessary to establish the liability and deferral balances were recorded in fiscal year 2018 only.

Fiduciary Fund

A pension trust fund and investment trust funds have been established to account for the assets held by RIO in a trustee capacity for TFFR and as an agent for other governmental units or funds which have placed certain investment assets under the management of SIB. The SIB manages two external investment pools and four individual investment accounts. The two external investment pools consist of a pension pool and insurance pool.

SIB manages the investments of the North Dakota Public Employees Retirement System, Bismarck City Employees and Police, City of Grand Forks Employees and City of Grand Forks Park District Employees pension plans in the pension pool. The investments of Workforce Safety & Insurance, State Fire and Tornado, State Bonding, Petroleum Tank Release Compensation Fund, Insurance Regulatory Trust, North Dakota Association of Counties Fund, Risk Management, Risk Management Workers Comp, PERS Group Insurance, City of Bismarck Deferred Sick Leave, City of Fargo FargoDome Permanent Fund, Cultural Endowment Fund, ND State Board of Medicine, Lewis and Clark Interpretive Center Endowment Fund and Budget Stabilization Fund are managed in the insurance pool.

The Legacy Fund, Job Service of North Dakota, Tobacco Prevention and Control Fund, and PERS Retiree Health investments are managed by SIB in

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

individual investment accounts; except for a small portion of the Legacy Fund fixed income assets that will remain pooled until they are liquidated at a future date and their cash allocation that will remain pooled for operational efficiency.

RIO has no statutory authority over, nor responsibility for, these investment trust funds other than the investment responsibility provided for by statute or through contracts with the individual agencies. The funds that are required to participate according to statute are: Public Employees Retirement System, Workforce Safety & Insurance, State Fire and Tornado, State Bonding, Petroleum Tank Release Compensation Fund, Insurance Regulatory Trust, Risk Management, Risk Management Workers Comp, Cultural Endowment Fund, Legacy Fund and Budget Stabilization Fund.

RIO follows the pronouncements of the Governmental Accounting Standards Board (GASB), which is the nationally accepted standard setting body for establishing accounting principles generally accepted in the United States of America for governmental entities.

Pension and Investment Trust Funds are accounted for using the accrual basis of accounting. Member contributions are recognized in the period in which they are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the NDCC.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

RIO utilizes various investment instruments. Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility. Due to the level of risk associated

with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such change could materially affect the amounts reported in the statements of net position.

Budgetary Process

RIO operates through a biennial appropriation, which represents appropriations recommended by the Governor and presented to the General Assembly (the Assembly) at the beginning of each legislative session. The Assembly enacts RIO's budget through passage of a specific appropriation bill. The State of North Dakota's budget is prepared principally on a modified accrual basis. The Governor has line item veto power over all legislation, subject to legislative override.

Once passed and signed, the appropriation bill becomes RIO's financial plan for the next two years. Changes to the appropriation are limited to Emergency Commission authorization, initiative, or referendum action. The Emergency Commission can authorize receipt of federal or other moneys not appropriated by the Assembly if the Assembly did not indicate intent to reject the money. The Emergency Commission may authorize pass-through federal funds from one state agency to another. The Emergency Commission may authorize the transfer of expenditure authority between appropriated line items, however RIO has specific authority as a special fund to transfer between the contingency line item and other line items. Unexpended appropriations lapse at the end of each biennium, except certain capital expenditures covered under the NDCC section 54-44.1-11.

RIO does not use encumbrance accounting. The legal level of budgetary control is at the agency, appropriation and expenditure line item level. RIO does not formally budget revenues and it does not budget by fund. The statement of revenues, expenditures and changes in fund balances - budget and actual is not prepared because revenues are not budgeted.

Capital Assets and Depreciation

Capital asset expenditures greater than \$5,000 are capitalized at cost in accordance with Section 54-27-21 of the NDCC. Depreciation is computed using the

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

straight-line method over the estimated useful lives of the assets. The estimated useful lives are as follows:

	<u>Years</u>
Office equipment	5
Furniture and fixtures	5

Investments

NDCC Section 21-10-07 states that the SIB shall apply the prudent investor rule when investing funds under its supervision. The prudent investor rule means that in making investments, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation, but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income.

The pension fund belonging to TFFR and investment trust funds attributable to the City of Bismarck Employee Pension Plan, the City of Bismarck Police Pension Plan, Job Service of North Dakota, City of Grand Forks Employee Pension Plan, City of Grand Forks Park District Pension Plan and the Public Employees Retirement System (PERS) must be invested exclusively for the benefit of their members. All investments are made in accordance with the respective fund's long-term investment objectives and performance goals.

Pooled Investments

Most funds whose investments are under the supervision of the SIB participate in pooled investments. The agencies transfer money into the investment pools and receive an appropriate percentage ownership of the pooled portfolio based upon fair value. All activities of the investment pools are allocated to the agencies based upon their respective ownership percentages. Each participant unit is valued at \$1.00 per unit.

Investment Valuation and Income Recognition

Investments are reported at fair value. Quoted market prices, when available, have been used to value investments. The fair values for securities that have no quoted market price represent estimated fair

value. International securities are valued based upon quoted foreign market prices and translated into U.S. dollars at the exchange rate in effect at June 30. In general, corporate debt securities have been valued at quoted market prices or, if not available, values are based on yields currently available on comparable securities of issuers with similar credit ratings. Mortgages have been valued on the basis of their future principal and interest payments discounted at prevailing interest rates for similar instruments. The fair value of real estate investments, including timberland, is based on appraisals plus fiscal year-to-date capital transactions. Publicly traded alternative investments are valued based on quoted market prices. When not readily available, alternative investment securities are valued using current estimates of fair value from the investment manager. Such valuations consider variables such as financial performance of the issuer, comparison of comparable companies' earnings multiples, cash flow analysis, recent sales prices of investments, withdrawal restrictions, and other pertinent information. Because of the inherent uncertainty of the valuation for these other alternative investments, the estimated fair value may differ from the values that would have been used had a ready market existed.

The net change in fair value of investments consists of the realized gains or losses and the unrealized increase or decrease in fair value of investments during the year. Realized gains and losses on sales of investments are computed based on the difference between the sales price and the original cost of the investment sold. Realized gains and losses on investments that had been held in more than one fiscal year and sold in the current fiscal year were included as a change in the fair value of investments reported in the prior year(s) and the current year.

Unrealized gains and losses are computed based on changes in the fair value of investments between years. Security transactions are accounted for on a trade date basis. Interest income is recognized when earned. Dividend income is recorded on the ex-dividend date.

Pensions and Other Postemployment Benefits (OPEB)

For purposes of measuring the net pension and OPEB liabilities, deferred outflows of resources and

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

deferred inflows of resources related to pensions and OPEB, and pension and OPEB expenses, information about the fiduciary net position of the ND Public Employees Retirement System (NDPERS) defined benefit pension and OPEB plans, and additions to/deductions from NDPERS' fiduciary net position have been determined on the same basis as they are reported by NDPERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Note 2 - Cash and Cash Equivalents

Custodial Credit Risk

State law generally requires that all state funds be deposited in the Bank of North Dakota. NDCC 21-04-01 provides that public funds belonging to or in the custody of the state shall be deposited in the Bank of North Dakota. Also, NDCC 6-09-07 states, “[a]ll state funds ... must be deposited in the Bank of North Dakota” or must be deposited in accordance with constitutional and statutory provisions.

Pension Trust Fund

Deposits held by the Pension Trust Fund at June 30, 2018 and 2017 were deposited in the Bank of North Dakota. At June 30, 2018 and 2017, the carrying amount of TFFR's deposits was \$20,486,449 and \$19,073,513, respectively, and the bank balance was \$20,528,537 and \$19,081,337, respectively. The difference results from checks outstanding or deposits not yet processed by the bank. These deposits are exposed to custodial credit risk as uninsured and uncollateralized. However, these deposits at the Bank of North Dakota are guaranteed by the State of North Dakota through NDCC Section 6-09-10.

Investment Trust Funds

Certificates of deposit, an insurance pool cash account and a pension pool cash account are recorded as investments and have a cost and carrying

value of \$88,601,097 and \$92,016,033 at June 30, 2018 and 2017, respectively. In addition, these funds carry cash and cash equivalents totaling \$410,261 and \$263,961 at June 30, 2018 and 2017, respectively. These deposits are exposed to custodial credit risk as uninsured and uncollateralized. However, these deposits held at the Bank of North Dakota are guaranteed by the State of North Dakota through NDCC Section 6-09-10.

Note 3 - Investments

The investment policy of the SIB is governed by NDCC 21-10. The SIB shall apply the prudent investor rule in investing for funds under its supervision. The “prudent investor rule” means that in making investments, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. The retirement funds belonging to the teachers' fund for retirement and the public employees' retirement system must be invested exclusively for the benefit of their members and in accordance with the respective funds' investment goals and objectives.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates of debt securities will adversely affect the fair value of an investment. The price of a debt security typically moves in the opposite direction of the change in interest rates. The SIB does not have a formal investment policy that limits investment maturities as a means of managing its exposure to potential fair value losses arising from future changes in interest rates.

At June 30, 2018 and 2017, the following tables show the investments by investment type and maturity (expressed in thousands).

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

2018	Total Fair Value	Less than 1 Year	1-6 Years	6-10 Years	More than 10 Years
Asset Backed Securities	\$ 205,023	\$ 470	\$ 44,775	\$ 41,176	\$ 118,602
Bank Deposits	2,736	2,736	-	-	-
Bank Loans	2,636	387	1,085	1,164	-
Collateralized Bonds	2,752	-	-	250	2,502
Commercial Mortgage-Backed	142,460	-	1,777	968	139,715
Commercial Paper	11,886	11,886	-	-	-
Corporate Bonds	1,479,560	31,658	579,400	451,040	417,462
Corporate Convertible Bonds	24,247	-	14,064	5,156	5,027
Government Agencies	105,819	7,183	62,478	18,693	17,465
Government Bonds	585,476	19,918	230,575	122,793	212,190
Gov't Mortgage Backed	580,245	30	5,555	14,467	560,193
Gov't-issued CMB	106,687	9	605	24,048	82,025
Index Linked Government Bonds	4,618	-	696	-	3,922
Municipal/Provincial Bonds	33,218	600	14,331	2,897	15,390
Non-Government Backed CMOs	60,910	43	2,603	1,724	56,540
Other Fixed Income	2,176	1,739	437	-	-
Repurchase Agreements	(18,967)	(18,967)	-	-	-
Short Term Bills and Notes	44,156	44,156	-	-	-
Sukuk	200	200	-	-	-
Funds/Pooled Investments	1,819,095	-	161,997	1,061,786	595,312
Total Debt Securities	\$ 5,194,933	\$ 102,048	\$ 1,120,378	\$ 1,746,162	\$ 2,226,345

2017	Total Fair Value	Less than 1 Year	1-6 Years	6-10 Years	More than 10 Years
Asset Backed Securities	\$ 101,522	\$ -	\$ 16,105	\$ 24,636	\$ 60,781
Bank Loans	3,687	100	2,301	1,286	-
Commercial Mortgage-Backed	119,452	-	3,999	777	114,676
Corporate Bonds	1,199,355	44,108	391,131	376,693	387,423
Corporate Convertible Bonds	14,457	-	5,026	4,582	4,849
Government Agencies	105,235	8,803	62,171	20,754	13,507
Government Bonds	464,441	2,402	155,204	105,268	201,567
Gov't Mortgage Backed	651,844	1,055	18,024	27,933	604,832
Gov't-issued CMB	57,767	343	4,089	7,011	46,324
Index Linked Government Bonds	31,880	-	13,599	12,357	5,924
Municipal/Provincial Bonds	46,016	4,172	11,454	7,198	23,192
Non-Government Backed CMOs	73,991	2,567	10,902	571	59,951
Other Fixed Income	3,575	1,681	1,894	-	-
Repurchase Agreements	(3,208)	(3,208)	-	-	-
Short Term Bills and Notes	7,827	7,827	-	-	-
Funds/Pooled Investments	1,962,531	-	361,109	1,043,860	557,562
Total Debt Securities	\$ 4,840,372	\$ 69,850	\$ 1,057,008	\$ 1,632,926	\$ 2,080,588

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

In the tables above, the fair values of inflation indexed bonds are reflected in the columns based on their stated maturity dates. The principal balances of these bonds are adjusted every six months based on the inflation index for that period.

Some investments are more sensitive to interest rate changes than others. Variable and floating rate collateralized mortgage obligations (CMOs), asset-backed securities (ABS), interest-only and principal-only securities are examples of investments whose fair values may be highly sensitive to interest rate changes.

Interest-only (IO) and principal-only (PO) strips are transactions which involve the separation of the interest and principal components of a security. They are highly sensitive to prepayments by mortgagors, which may result from a decline in interest rates. The SIB held IOs valued at \$6.7 million and \$8.7 million

and POs valued at \$0.0 million and \$4.8 million at June 30, 2018 and 2017, respectively. The SIB has no policy regarding IO or PO strips.

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The State Investment Board maintains a highly diversified portfolio of debt securities encompassing a wide range of credit ratings. Although the SIB has no overall policy regarding credit risk, each debt securities manager is given a specific set of guidelines to invest within based on the mandate for which it was hired. The guidelines specify in which range of credit the manager may invest. These ranges include investment grade and below investment grade categories. The following tables present the SIB's ratings as of June 30, 2018 and 2017, (expressed in thousands).

2018	Total Fair Value	Credit Rating*										
		AAA	AA	A	BBB	BB	B	CCC	CC	C	D	NR
Asset Backed Securities	\$ 204,368	\$ 144,343	\$ 18,759	\$ 11,250	\$ 9,889	\$ 3,163	\$ 1,873	\$ 5,965	\$ 2,976	\$ -	\$ 1,495	\$ 4,655
Bank Deposits	2,736	-	-	2,736	-	-	-	-	-	-	-	-
Bank Loans	2,636	-	-	-	387	887	858	272	-	-	-	232
Collateralized Bond	2,752	2,752	-	-	-	-	-	-	-	-	-	-
Commercial Mortgage Backed	141,995	107,878	6,804	5,158	5,673	6,284	1,140	4,431	520	883	1,232	1,992
Commercial Paper	11,886	-	-	10,810	-	-	-	-	-	-	-	1,076
Corporate Bonds	1,479,560	10,261	52,467	311,750	870,000	170,852	56,483	7,745	-	-	2	-
Corporate Convertible Bonds	24,247	-	-	-	1,742	6,265	7,365	8,875	-	-	-	-
Gov't Agencies	92,701	3,096	61,504	1,594	24,799	1,708	-	-	-	-	-	-
Gov't Bonds	75,958	-	3,763	6,033	43,886	9,699	12,577	-	-	-	-	-
Gov't Mortgage Backed	487,236	-	487,236	-	-	-	-	-	-	-	-	-
Gov't Issued CMB	27,991	-	27,991	-	-	-	-	-	-	-	-	-
Index Linked Government Bonds	696	-	-	-	-	-	696	-	-	-	-	-
Municipal/Provincial Bonds	33,218	235	8,326	13,277	7,863	574	2,943	-	-	-	-	-
Non-Gov't Backed CMOs	60,910	23,309	2,398	11,858	2,745	728	2,136	3,344	3,806	-	809	9,777
Other Fixed Income	2,176	-	-	1,499	480	-	-	-	-	-	-	197
Repurchase Agreements	(18,967)	-	(18,967)	-	-	-	-	-	-	-	-	-
Short Term Bills & Notes	42,636	-	7,422	35,214	-	-	-	-	-	-	-	-
Sukuk	200	-	-	-	-	200	-	-	-	-	-	-
Funds/Pooled Investments	1,819,095	-	1,279,292	110,643	355,231	19,052	54,877	-	-	-	-	-
Total Credit Risk of Debt Securities	4,494,030	\$ 291,874	\$ 1,936,995	\$ 521,822	\$ 1,322,695	\$ 219,412	\$ 140,948	\$ 30,632	\$ 7,302	\$ 883	\$ 3,538	\$ 17,929
US Gov't & Agencies **	700,903											
Total Debt Securities	<u>\$ 5,194,933</u>											

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

2017	Total Fair Value	Credit Rating*										
		AAA	AA	A	BBB	BB	B	CCC	CC	C	D	NR
Asset Backed Securities	\$ 101,522	\$ 55,001	\$ 4,386	\$ 9,003	\$ 10,555	\$ 4,143	\$ 2,805	\$ 11,811	\$ 1,766	\$ 67	\$ 1,985	\$ -
Bank Loans	3,687	-	-	-	396	1,993	426	-	-	-	-	872
Commercial Mortgage Backed	85,465	44,485	8,826	6,350	6,958	7,045	4,366	5,349	455	-	1,532	99
Corporate Bonds	1,199,355	8,280	38,298	195,825	744,656	142,769	60,766	8,201	-	105	455	-
Corporate Convertible Bonds	14,457	-	-	-	1,627	3,499	3,911	5,420	-	-	-	-
Gov't Agencies	89,139	11,380	53,086	3,228	19,666	1,779	-	-	-	-	-	-
Gov't Bonds	123,863	-	9,813	46,574	45,427	17,267	4,782	-	-	-	-	-
Gov't Mortgage Backed	492,868	-	492,868	-	-	-	-	-	-	-	-	-
Gov't Issued CMB	11,824	-	11,597	-	227	-	-	-	-	-	-	-
Municipal/Provincial Bonds	46,016	3,909	14,473	9,834	15,514	-	2,286	-	-	-	-	-
Non-Gov't Backed CMOs	72,957	17,748	10,630	20,144	3,981	3,000	3,246	7,752	3,588	-	2,868	-
Other Fixed Income	3,575	3,575	-	-	-	-	-	-	-	-	-	-
Repurchase Agreements	(3,208)	-	(3,208)	-	-	-	-	-	-	-	-	-
Short Term Bills & Notes	3,892	-	3,597	295	-	-	-	-	-	-	-	-
Funds/Pooled Investments	1,962,531	161,292	1,005,167	198,871	329,090	247,377	20,734	-	-	-	-	-
Total Credit Risk of Debt Securities	4,207,943	\$ 305,670	\$1,649,533	\$ 490,124	\$ 1,178,097	\$ 428,872	\$ 103,322	\$ 38,533	\$ 5,809	\$ 172	\$ 6,840	\$ 971
US Gov't & Agencies **	632,429											
Total Debt Securities	<u>\$ 4,840,372</u>											

- * Ratings are determined in the following order:
1. S&P rating
 2. Moody's rating
 3. Fitch rating
 4. Manager-determined rating (internal rating)
 5. If no ratings available using steps 1-4, then shown as not rated.

** US government agency securities explicitly guaranteed by the US government are categorized here. Credit ratings of US government agency securities that are only implicitly guaranteed by the US government are categorized accordingly in the main body of these tables. Implicitly guaranteed agency securities included in the *Asset Backed*, *Commercial Mortgage-Backed*, *Gov't Issued Commercial & Gov't Mortgage Backed*, *Gov't Agencies*, *Gov't Bonds*, *Index Linked Gov't Bonds* and *Short Term Bills and Notes* categories are issued by FNMA, FHLB, FHLMC, FAMC and TVA.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of an investment in a single issuer. As of June 30, 2018 and 2017, the SIB's portfolio has no single issuer exposure that comprises 5% or more of the overall portfolio, excluding investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments. Therefore, there is no concentration of credit risk.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. Although the SIB does not have a formal investment policy governing foreign currency risk, the SIB manages its exposure to fair value loss by requiring their international securities investment managers to maintain diversified portfolios to limit foreign currency and security risk. The SIB's exposure to foreign currency risk is presented in the following tables as of June 30, 2018 and 2017 (expressed in thousands).

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

2018

Currency	Short-Term	Debt	Equity	Real Estate	Total
Argentine peso	\$ 63	\$ 3,064	\$ -	\$ -	\$ 3,127
Australian dollar	9,035	(7,424)	86,331	-	87,942
Brazilian real	875	-	3,703	-	4,578
British pound sterling	5,554	(4,870)	224,748	-	225,432
Canadian dollar	3,862	(3,637)	73,146	-	73,371
Chilean peso	55	-	-	-	55
Colombian peso	213	275	-	-	488
Czech koruna	335	-	-	-	335
Danish krone	20	-	22,089	-	22,109
Egyptian pound	308	-	-	-	308
Euro	13,098	(12,059)	444,208	5,312	450,559
Hong Kong dollar	825	-	113,541	-	114,366
Hungarian forint	154	-	3,432	-	3,586
Indonesian rupiah	55	-	-	-	55
Japanese yen	(3,273)	-	235,053	-	231,780
Malaysian ringgit	154	-	1,683	-	1,837
Mexican peso	609	5,671	1,167	-	7,447
New Israeli shekel	246	-	3,755	-	4,001
New Taiwan dollar	142	-	5,441	-	5,583
New Zealand dollar	946	-	468	-	1,414
Norwegian krone	78	-	14,658	-	14,736
Polish zloty	29	-	1,311	-	1,340
Russian ruble	38	-	-	-	38
Singapore dollar	53	-	7,450	-	7,503
South African rand	(1,276)	1,843	6,443	-	7,010
South Korean won	583	-	12,581	-	13,164
Swedish krona	4,746	-	44,887	-	49,633
Swiss franc	1,554	-	82,868	-	84,422
Thai baht	426	-	5,163	-	5,589
Turkish lira	39	-	737	-	776
International commingled funds (various currencies)	-	-	952,235	25,105	977,340
Total international investment securities	\$ 39,546	\$ (17,137)	\$ 2,347,098	\$ 30,417	\$ 2,399,924

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

2017

Currency	Short-Term	Debt	Equity	Real Estate	Total
Argentine peso	\$ -	\$ 509	\$ -	\$ -	\$ 509
Australian dollar	3,344	8,461	64,338	-	76,143
Brazilian real	641	6,742	14,678	-	22,061
British pound sterling	14,956	9,761	195,199	-	219,916
Canadian dollar	6,084	-	55,194	-	61,278
Chilean peso	54	-	-	-	54
Colombian peso	204	-	-	-	204
Czech koruna	-	-	760	-	760
Danish krone	-	-	13,941	-	13,941
Euro	(13,111)	13,951	401,660	9,954	412,454
Hong Kong dollar	1,601	-	77,234	-	78,835
Hungarian forint	89	-	4,413	-	4,502
Indian rupee	7,193	1,398	-	-	8,591
Indonesian Rupiah	59	6,939	1,003	-	8,001
Japanese yen	712	381	221,644	-	222,737
Malaysian Ringgit	74	8,006	1,530	-	9,610
Mexican peso	(45)	26,092	-	-	26,047
New Israeli shekel	543	-	4,103	-	4,646
New Taiwan dollar	(378)	-	3,896	-	3,518
New Zealand dollar	88	-	2,177	-	2,265
Norwegian krone	8,121	-	12,450	-	20,571
Peruvian nuevo sol	2	-	-	-	2
Polish zloty	(5)	9,101	1,684	-	10,780
Russian ruble	325	-	-	-	325
Singapore dollar	300	-	6,177	-	6,477
South African rand	47	7,137	7,663	-	14,847
South Korean won	134	-	12,364	-	12,498
Swedish krona	6,408	-	39,213	-	45,621
Swiss franc	128	-	79,937	-	80,065
Thai baht	197	-	5,013	-	5,210
Turkish lira	25	2,461	806	-	3,292
International commingled funds (various currencies)	-	105,946	916,411	61,315	1,083,672
Total international investment securities	\$ 37,790	\$ 206,885	\$ 2,143,488	\$ 71,269	\$ 2,459,432

Negative amounts represent short positions.

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Derivative Securities

Derivatives are financial arrangements between two parties whose payments are based on, or “derived” from, the performance of some agreed upon benchmark. The investment policies of the SIB’s clients allow the use of derivative securities to hedge or replicate underlying exposures but not for speculation. All derivatives are considered investment derivative instruments. The fair value of all derivative securities is reported in the statement of net position. At June 30, 2018 and 2017, the SIB had four types of derivative securities: futures, options, swaps and currency forwards.

Futures

Futures represent commitments to purchase (asset) or sell (liability) securities at a future date and at a specific price. Futures contracts are traded on organized exchanges (exchange traded) thereby minimizing the SIB’s counterparty risk. The net change in the futures contracts’ value is settled daily in cash with the exchanges. Net gains or losses resulting from the daily settlements are included in net change in fair value of investments in the statement of changes in net position and totaled \$100.0 million and \$133.8 million for fiscal years 2018 and 2017, respectively. At June 30, 2018 and 2017, the SIB investment portfolio had the notional futures balances shown below (expressed in thousands).

<u>Futures</u>	Notional Value	
	June 30, 2018	June 30, 2017
Cash & Cash Equivalent Derivative Futures		
Long	\$ 226,320	\$ 68,249
Short	(962,500)	(725,425)
Equity Derivative Futures		
Long	647,386	623,945
Short	-	-
Fixed Income Derivative Futures		
Long	378,144	287,137
Short	(132,120)	(194,390)
Total Futures	<u>\$ 157,230</u>	<u>\$ 59,516</u>

Options

Options represent or give buyers the right, but not the obligation, to buy (call) or sell (put) an asset at a preset price over a specified period. Options are traded on organized exchanges (exchange traded) thereby minimizing the SIB’s counterparty credit risk. The option’s price is usually a small percentage of the underlying asset’s value. As a seller of a financial option, the SIB, through its investment manager, receives a premium at the beginning of the agreement and bears the risk of an unfavorable change in the price of the financial instrument

underlying the option. As a buyer of a financial option, the SIB, through its investment manager, pays a premium at the beginning of the agreement and the counterparty bears the risk of an unfavorable change in the price of the financial instrument underlying the option. Gains and losses on options are determined based on fair values and recorded with the net change in fair value of investments in the statement of changes in net position and totaled \$(9.1) million and \$(0.2) million for fiscal years 2018 and 2017, respectively. At June 30, 2018 and 2017, the SIB investment portfolio had the following option balances (expressed in thousands).

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Options	Fair Value	
	June 30, 2018	June 30, 2017
Cash & Other Options		
Call	\$ (149)	\$ (2)
Put	(363)	23
Fixed Income Options		
Call	-	88
Put	(5)	203
Total Options	<u>\$ (517)</u>	<u>\$ 312</u>

Swaps

A swap is a derivative in which counterparties exchange certain benefits of one party's financial instrument for those of the other party's financial instrument. Specifically, the two counterparties agree to exchange one stream of cash flows for another stream. The SIB, through its investment managers, has entered into various swap agreements in an attempt to manage its exposure to interest rate, inflation, credit, currency and total return risk.

Gains and losses on swaps are determined based on fair values and are recorded with the net change in fair value of investments in the statement of changes in net position and totaled \$3.6 million and \$9.2 million for fiscal years 2018 and 2017, respectively. The maximum loss that would be recognized at June 30, 2018 and 2017, if all counterparties failed to perform as contracted is \$2.75 million and \$2.0 million, respectively. Swap fair values are determined by a third party pricing source. At June 30, 2018 and 2017, the SIB's investment portfolio had the swap fair value balances as shown below (expressed in thousands).

Credit Default Swaps

Credit risk represents the exposure to fair value losses arising from a credit event such as default, failure to pay, restructuring or bankruptcy. In a credit default swap (CDS) contract, the protection buyer of the CDS makes a series of payments to the protection seller and, in exchange, receives a payoff if the credit instrument experiences a credit event. CDS contracts are also used to establish exposure to a desired credit instrument.

Counterparty/Moody's Rating	Notional Amount		Expiration Date Range	Fair Value	
	June 30, 2018	June 30, 2017		June 30, 2018	June 30, 2017
Bank of America/A1 (2 contracts)	\$ (2,700)		2021	\$ 13	
Bank of America/A1 (2 contracts)		(2,700)	2018 - 2021		35
BNP Paribas/A1 (2 contracts)		(600)	2019 - 2022		(5)
BNP Paribas/A1 (1 contract)	(400)		2019	(2)	
Citibank/A1 (4 contracts)		(7,750)	2018 - 2019		119
Citibank/A1 (23 contracts)	(9,005)		2018 - 2024	(55)	
Credit Suisse First Boston/A1 (8 contracts)		11,705	2017 - 2022		(759)
Credit Suisse First Boston/A1 (2 contracts)	(89,400)		2022 - 2023	1,369	
Deutsche Bank/Baa2 (2 contracts)	2,000		2059	9	
Goldman Sachs/A3 (2 contracts)		(1,800)	2019 - 2020		22
Goldman Sachs/A3 (10 contracts)	(4,890)		2019 - 2063	37	
HSBC Bank/A1 (1 contract)		(100)	2022		(1)
HSBC Bank/A1 (1 contract)	(100)		2023	(1)	
JP Morgan Chase/Aa3 (3 contracts)		(930)	2019 - 2020		2
JP Morgan Chase/Aa3 (1 contract)	(300)		2019	4	
Total Credit Default Swaps	<u>\$ (104,795)</u>	<u>\$ (2,175)</u>		<u>\$ 1,374</u>	<u>\$ (587)</u>

The notional amount may be positive or negative, depending on whether the position is long or short, respectively.

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Currency Swaps

Currency risk represents the exposure to fair value losses arising from the change in price of one currency against another. A currency swap is a foreign-exchange agreement between two parties to exchange principal and interest in one currency for the same in another currency.

Counterparty/Moody's Rating	Notional Amount		Expiration Date Range	Fair Value	
	June 30, 2018	June 30, 2017		June 30, 2018	June 30, 2017
JP Morgan Chase/Aa3 (1 contract)	\$ -	\$ 106	2020	\$ -	\$ (6)
JP Morgan Chase/Aa3 (1 contract)	106		2020	(7)	
Total Currency Swaps	<u>\$ 106</u>	<u>\$ 106</u>		<u>\$ (7)</u>	<u>\$ (6)</u>

The notional amount may be positive or negative, depending on whether the position is long or short, respectively.

Interest Rate Swaps

Interest rate risk represents the exposure to fair value losses arising from future changes in prevailing market interest rates. In the most common type of interest rate swap arrangement, one party agrees to pay fixed interest payments on designated dates to a counterparty, who in turn agrees to make return interest payments that float with some reference rate.

Counterparty/Moody's Rating	Notional Amount		Expiration Date Range	Fair Value	
	June 30, 2018	June 30, 2017		June 30, 2018	June 30, 2017
Citigroup Global Markets/A1 (5 contracts)	\$ (28,885)		2019 - 2025	\$ 1,018	
Credit Suisse First Boston/A1 (34 contracts)		(62,477)	2017 - 2048		1,168
Credit Suisse First Boston/A1 (32 contracts)	94,495		2019 - 2048	2,275	
Goldman Sachs/A3 (1 contract)		5	2017	-	-
JP Morgan Chase/Aa3 (130 contracts)		(642)	2017 - 2046		1,322
JP Morgan Chase/Aa3 (176 contracts)	(134,106)		2018 - 2048	3,122	
Morgan Stanley/A3 (1 contract)		215	2022		(3)
Total Interest Rate Swaps	<u>\$ (68,496)</u>	<u>\$ (62,899)</u>		<u>\$ 6,415</u>	<u>\$ 2,487</u>

The notional amount may be positive or negative, depending on whether the position is long (fixed rate payer) or short (floating rate payer), respectively.

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Inflation Swaps

Inflation risk represents the exposure to fair value losses arising from future changes in prevailing market inflation. In an inflation swap, one party pays a fixed rate on a notional principal amount, while the other party pays a floating rate linked to an inflation index, such as the Consumer Price Index (CPI).

Counterparty/Moody's Rating	Notional Amount		Expiration Date Range	Fair Value	
	June 30, 2018	June 30, 2017		June 30, 2018	June 30, 2017
Credit Suisse First Boston/A1 (3 contracts)	\$ -	\$ 522	2020 - 2030	\$ -	\$ (3)
Goldman Sachs/A3 (5 contracts)		1,797	2020 - 2030		(14)
JP Morgan Chase/Aa3 (22 contracts)	5,730		2022 - 2057	(25)	
Total Inflation Swaps	<u>\$ 5,730</u>	<u>\$ 2,319</u>		<u>\$ (25)</u>	<u>\$ (17)</u>

The notional amount may be positive or negative, depending on whether the position is long (fixed rate payer) or short (floating rate payer), respectively.

Total Return Swaps

A total return swap is an agreement in which one party makes payments based on a set rate, either fixed or variable, while the other party makes payments based on the return of an underlying asset (income and capital gains). The underlying asset, or reference asset, is owned by the party receiving the set rate payment.

Counterparty/Moody's Rating	Notional Amount		Expiration Date Range	Fair Value	
	June 30, 2018	June 30, 2017		June 30, 2018	June 30, 2017
Credit Suisse International/A1 (2 contracts)	\$ -	\$ 4,800	2041	\$ -	\$ 21
Credit Suisse International/A1 (2 contracts)	4,800		2041	(20)	
Total Total Return Swaps	<u>\$ 4,800</u>	<u>\$ 4,800</u>		<u>\$ (20)</u>	<u>\$ 21</u>

The notional amount may be positive or negative, depending on whether the position is long (fixed rate payer) or short (floating rate payer), respectively.

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Currency Forwards

Currency forwards represent forward exchange contracts that are entered into in order to manage the exposure to changes in currency exchange rates on the currency denominated portfolio holdings. A forward exchange contract is a commitment to purchase (positive) or sell (negative) a currency at a future date at a negotiated forward rate. The gain or loss arising from the difference between the original

contracts and the closing of such contracts is included in the net change in fair value of investments in the statements of changes in net position and totaled \$2.2 million and \$0.5 million for fiscal years 2018 and 2017, respectively. At June 30, 2018 and 2017, the SIB's investment portfolio included the currency forwards balances shown below (expressed in thousands).

Currency	Cost	Purchases	Sales	Fair Value	
				6/30/2018	6/30/2017
Argentine peso	\$ 2	\$ 3	\$ (1)	\$ 2	\$ -
Australian dollar	(1,868)	1,772	(3,640)	(1,832)	3,297
Brazilian real	1,263	2,050	(787)	1,207	480
British pound sterling	(3,732)	1,585	(5,317)	(3,549)	13,007
Canadian dollar	(2,784)	-	(2,784)	(2,737)	6,110
Colombian peso	218	218	-	213	204
Egyptian pound	302	302	-	308	-
Euro	(18,684)	13,170	(31,854)	(17,897)	(16,369)
Hungarian forint	-	-	-	-	(20)
Indian rupee	-	-	-	-	7,193
Israeli shekel	-	-	-	-	(27)
Japanese yen	(44,787)	15,759	(60,546)	(44,049)	(329)
South Korean won	-	-	-	-	(166)
Mexican peso	14	7,031	(7,017)	83	(1,125)
Norwegian krone	-	-	-	-	7,333
Peruvian nuevo sol	-	-	-	-	2
Polish zloty	-	-	-	-	46
Russian ruble	79	4,994	(4,915)	38	325
Singapore dollar	-	-	-	-	(514)
South African rand	(1,886)	-	(1,886)	(1,727)	(515)
Swedish krona	4,746	6,393	(1,647)	4,629	6,415
Turkish lira	-	-	-	-	446
New Taiwan dollar	-	-	-	-	(498)
United States dollar	67,118	120,395	(53,277)	67,119	(25,329)
Total forwards subject to currency risk				<u>\$ 1,808</u>	<u>\$ (34)</u>

Derivative Interest Rate Risk

Derivative interest rate risk is the risk that changes in interest rates will adversely affect the value of an interest rate-based derivative investment. The SIB

does not have a formal investment policy regarding such derivative investments. At June 30, 2018 and 2017, the tables below show the SIB's derivative investments subject to interest rate risk (expressed in thousands).

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

2018						
	Total Notional					
	Value	3 months or less	3 to 6 months	6 to 12 months	1-5 years	Greater than 5 years
Futures-interest rate contracts	\$ (490,157)	\$ (442,696)	\$ (160,157)	\$ (50,322)	\$ 163,018	\$ -
Options-margined interest rate contracts	(17)	(17)	-	-	-	-
Total	<u>\$ (490,174)</u>	<u>\$ (442,713)</u>	<u>\$ (160,157)</u>	<u>\$ (50,322)</u>	<u>\$ 163,018</u>	<u>\$ -</u>
	Total Fair					
	Value	3 months or less	3 to 6 months	6 to 12 months	1-5 years	Greater than 5 years
Options - interest rate contracts	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Options on futures	(5)	(5)	-	-	-	-
Swaps - interest rate contracts	6,390	-	251	179	1,229	4,731
Swaps - credit contracts	1,374	-	37	2	1,392	(57)
Total	<u>\$ 7,759</u>	<u>\$ (5)</u>	<u>\$ 288</u>	<u>\$ 181</u>	<u>\$ 2,621</u>	<u>\$ 4,674</u>
2017						
	Total Notional					
	Value	3 months or less	3 to 6 months	6 to 12 months	1-5 years	Greater than 5 years
Futures-interest rate contracts	\$ (564,429)	\$ (615,292)	\$ 128,182	\$ (63,483)	\$ (13,836)	\$ -
Total	<u>\$ (564,429)</u>	<u>\$ (615,292)</u>	<u>\$ 128,182</u>	<u>\$ (63,483)</u>	<u>\$ (13,836)</u>	<u>\$ -</u>
	Total Fair					
	Value	3 months or less	3 to 6 months	6 to 12 months	1-5 years	Greater than 5 years
Options - caps and floors	\$ 46	\$ -	\$ -	\$ -	\$ 46	\$ -
Options - interest rate contracts	(1)	(1)	-	-	-	-
Options on futures	253	253	-	-	-	-
Swaps - interest rate contracts	2,470	136	131	97	532	1,574
Swaps - credit contracts	(587)	-	1	-	(588)	-
Total	<u>\$ 2,181</u>	<u>\$ 388</u>	<u>\$ 132</u>	<u>\$ 97</u>	<u>\$ (10)</u>	<u>\$ 1,574</u>

Fair Value Measurement

The SIB categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements).

Level 1 Unadjusted quoted prices for identical instruments in active markets.

Level 2 Quoted prices for similar instruments in active markets; quoted prices for identical

or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.

Level 3 Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

The following tables show the fair value leveling of the SIB's investment portfolio at June 30, 2018 and 2017 (expressed in thousands).

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

2018	Dollars in \$(000)			
	Fair Value Measures Using			
	Fair Value 6/30/18	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level				
Short Term Securities				
Commercial Paper	\$ 11,886	\$ -	\$ 11,886	\$ -
Short Term Bills and Notes	44,156	-	44,156	-
Short Term Securities	56,042	-	56,042	-
Fixed income investments				
Asset Backed Securities	192,586	-	192,586	-
Bank Loans	2,636	-	2,636	-
Collateralized Bonds	2,752	-	2,752	-
Commercial Mortgage-Backed	140,642	-	137,012	3,630
Corporate Bonds	1,479,560	-	1,479,296	264
Corporate Convertible Bonds	24,247	-	24,247	-
Funds - Fixed Income ETF	28,654	28,654	-	-
Government Agencies	105,819	-	104,115	1,704
Government Bonds	585,476	-	585,476	-
Government Mortgage Backed Securities	580,245	-	580,245	-
Gov't-issued Commercial Mortgage-Backed	106,687	-	106,687	-
Index Linked Government Bonds	4,618	-	4,618	-
Municipal/Provincial Bonds	33,218	-	33,218	-
Non-Government Backed C.M.O.s	55,798	-	53,407	2,391
Other Fixed Income	2,376	-	2,376	-
Total fixed income investments	3,345,314	28,654	3,308,671	7,989
Equity investments				
Common Stock	4,193,715	4,193,668	-	47
Convertible Equity	2,547	-	2,547	-
Funds - Equities ETF	276,921	276,921	-	-
Preferred Stock	2,060	2,049	11	-
Rights/Warrants	167	167	-	-
Stapled Securities	4,865	4,865	-	-
Total equity investments	4,480,275	4,477,670	2,558	47
Derivative investments				
Exchange Cleared Swaps	7,739	-	7,739	-
Options	(517)	(5)	(512)	-
Swaps	(2)	-	(2)	-
Total derivative investments	7,220	(5)	7,225	-
Total investments by fair value level	\$ 7,888,851	\$ 4,506,319	\$ 3,374,496	\$ 8,036

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Investments measured at the net asset value (NAV)		Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Commingled Funds-Debt	\$ 1,790,441	\$ -	Daily, monthly	1-15 days
Commingled Funds-Equities	1,082,603	-	Daily, monthly	1-15 days
Distressed Debt	310,992	45,971	Quarterly, Not eligible	60 days
Long/Short	208,253	-	Monthly	15 days
Mezzanine Debt	540	8,505	Not eligible	Not eligible
Private Credit	238,107	177,200	Not eligible	Not eligible
Private Equity	191,437	300,526	Not eligible	Not eligible
Real Assets	1,729,935	265,460	Quarterly, Not eligible	30-90 days
Total investments measured at the NAV	\$ 5,552,308	\$ 797,662		
Investments at other than fair value				
Cash and adjustments to cash	\$ 196,912			
Bank Certificates of Deposit	58,222			
Other miscellaneous securities	19,374			
Repurchase Agreements	(18,967)			
Total investments at other than fair value	\$ 255,541			
Total investments	<u>\$ 13,696,700</u>			

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

2017	Fair Value 6/30/17	Fair Value Measures Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level				
Short Term Securities				
Short Term Bills and Notes	\$ 7,826	\$ -	\$ 7,532	\$ 294
Short Term Securities	7,826	-	7,532	294
Fixed income investments				
Asset Backed Securities	100,985	-	100,823	162
Bank Loans	3,687	-	3,687	-
Commercial Mortgage-Backed	119,451	-	119,451	-
Corporate Bonds	1,199,355	-	1,198,360	995
Corporate Convertible Bonds	14,456	-	14,456	-
Funds - Fixed Income ETF	29,259	29,259	-	-
Government Agencies	104,775	-	98,097	6,678
Government Bonds	464,441	-	464,441	-
Government Mortgage Backed Securities	652,306	-	651,753	553
Gov't-issued Commercial Mortgage-Backed	57,767	-	57,767	-
IndexLinked Government Bonds	31,880	-	31,880	-
Municipal/Provincial Bonds	46,016	-	46,016	-
Non-Government Backed C.M.O.s	65,402	-	62,487	2,915
Other Fixed Income	3,578	-	3,575	3
Total fixed income investments	2,893,358	29,259	2,852,793	11,306
Equity investments				
Common Stock	3,752,805	3,752,771	-	34
Convertible Equity	1,746	-	1,746	-
Funds - Common Stock	4,149	4,149	-	-
Funds - Equities ETF	221,791	221,791	-	-
Preferred Stock	2,898	2,898	-	-
Rights/Warrants	12	-	-	12
Stapled Securities	4,547	4,547	-	-
Total equity investments	3,987,948	3,986,156	1,746	46
Derivative investments				
Exchange Cleared Swaps	1,842	-	1,851	(9)
Options	312	253	59	-
Swaps	58	-	58	-
Total derivative investments	2,212	253	1,968	(9)
Total investments by fair value level	\$ 6,891,344	\$ 4,015,668	\$ 2,864,039	\$ 11,637

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Investments measured at the net asset value (NAV)		Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Commingled Funds-Debt	\$ 1,729,361	\$ -	Daily, monthly	1-15 days
Commingled Funds-Equities	1,039,323	-	Daily, monthly	1-15 days
Distressed Debt	318,519	12,500	Quarterly, Not eligible	60 days
Long/Short	193,356	-	Monthly	15 days
Mezzanine Debt	1,781	8,526	Not eligible	Not eligible
Private Equity	167,162	286,819	Not eligible	Not eligible
Real Assets	1,603,883	163,475	Quarterly, Not eligible	30-90 days
Total investments measured at the NAV	\$ 5,053,385	\$ 471,320		
Investments at other than fair value				
Cash and adjustments to cash	\$ 244,004			
Bank Certificates of Deposit	56,819			
Other miscellaneous securities	9,126			
Repurchase Agreements	(3,208)			
Total investments at other than fair value	\$ 306,741			
Total investments	\$ 12,251,470			

Securities classified in Level 1 are valued using quoted prices in active markets for those securities. Securities classified in Level 2 and Level 3 are valued using methodologies such as various bid evaluations, market averages and other matrix pricing techniques as well as values derived from associated traded securities or last trade data. In instances where inputs used to measure fair value fall into different levels, the fair value is categorized based on the lowest level input that is significant to the valuation.

Investments valued at the net asset value (NAV) per share (or its equivalent) have been classified separately in the tables above and include investments considered to be *alternative investments* as defined by the AICPA. The definition includes investments for which a readily determinable fair value does not exist (that is, investments not listed on national exchanges or over-the-counter markets, or for which quoted market prices are not available from sources such as financial publications, the exchanges, or NASDAQ). These types of investments can be held within any of the asset classes used by the SIB based on underlying portfolio holdings and analysis of risk and return relationships. These investments can be structured in different ways, including limited partnerships, limited liability companies, common trusts and mutual funds. Some are closed-ended with a specific life and capital commitment while others are open-

ended with opportunity for ad hoc contributions or withdrawals and termination upon proper notice.

Commingled/Mutual Funds — These types of funds are open-ended funds and may be utilized in equity or fixed income asset classes. They are funds made up of underlying securities that have readily available fair values (publicly traded stocks or bonds). The SIB owns units of these funds rather than the individual securities. Contributions or withdrawals from these funds can be made as needed, generally with daily or monthly liquidity, with a notice period of one to fifteen days. Because they are liquid funds, there are no unfunded commitments for these types of investments.

Distressed Debt — these include investments in the debt instruments of companies which may be publicly traded or privately held that are financially distressed and are either in bankruptcy or likely candidates for bankruptcy. Typical holdings are senior and subordinated debt instruments, mortgages and bank loans. The SIB is including these types of investments in its global fixed income allocations. As of June 30, 2018 and 2017, unfunded commitments in one of its two distressed debt funds totaled \$46.0 million and \$12.5 million, respectively. This fund is not eligible for redemptions. The other fund is eligible for redemptions with quarterly

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

liquidity and 60 days notice, and has no unfunded commitment.

Equity Long/Short — This strategy is a combination of long and short positions, primarily in publicly traded equities. The SIB utilizes this strategy, through a limited partnership structure, within its global equity allocations. This is an open-ended fund with monthly liquidity with a notice period of 15 days. There was no unfunded commitment as of June 30, 2018 and 2017.

Mezzanine Debt — This strategy is a hybrid of debt and equity financing. It is essentially debt capital that gives the lender the rights to convert to an ownership or equity interest in the company if the loan is not paid back in time and in full. It is generally subordinated to senior debt. The SIB utilizes this strategy, through a limited partnership structure, in its global fixed income allocation. The two funds in this category are not eligible for redemptions, have remaining lives of 2-5 years, and unfunded commitments of \$8.5 million and \$8.5 million as of June 30, 2018 and 2017, respectively.

Private Credit — These investments include loans to private companies, privately placed debt of public companies, or loans backed by real assets. Loan repayment can be derived from either cash flows from an operating company or cash flows generated by a physical or esoteric asset. Private debt is typically secured and has various protections/covenants in place. The debt is customized to the borrower's requirement, thus rendering it illiquid. The SIB includes these strategies within its global fixed income allocation through limited partnership-type structures. Private credit issuers may be investment grade but are typically below-investment grade and similar in some respect to the syndicated bank loan and high yield markets. The SIB employs two senior private debt funds, commonly referred to as direct lenders, which are structured as custom managed accounts that are not eligible for redemptions during remaining investment lives of 3 to 4 years. The SIB first committed to the two funds in this category in FY2018 and the unfunded commitments totaled \$177.2 million as of June 30, 2018.

Private Equity — Private Equity investments are typically private interests in corporations across different areas of the capital structure and in different stages of the corporations' development via limited partnership vehicles. Private Equity investments are illiquid and long term in nature (10-12 years), typically held until maturity. Private Equity portfolios generally have a "J-Curve Effect" whereby there are low to negative returns in the initial years due to the payment of investment management fees and initial funding of investments made by the General Partner during a period when investments are typically carried at cost and returns have not been realized. To diversify the program, Private Equity investments are made across business cycles, vintage years, and different strategies. The SIB has a dedicated sub-asset class for private equity investments within its global equity allocation in the pension pool. The SIB does not have the option to request redemptions from its private equity funds. The General Partner distributes earnings and proceeds from the sale of the underlying investments as transactions occur. The SIB has \$300.5 million and \$286.8 million in unfunded private equity commitments as of June 30, 2018 and 2017, respectively.

Venture Capital — these include investments in companies in a range of stages of development from start-up/seed stage, early stage, and later/expansion stage. Investments are typically made in years one through six and returns typically occur in years four through ten.

Buyouts — these include investments in funds that seek out and purchase underperforming or undervalued companies in order to improve them and sell them or take them public many years later. These funds are also often involved in management buyouts, which are buyouts conducted by the management of the company being purchased, and they often play key roles in leveraged buyouts, which are buyouts that are funded with borrowed money.

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Real Assets — These investments are intended to provide allocations to tangible assets that are expected to be inflation protected and provide performance above the inflation rate as indicated by the CPI. Investments are generally structured as limited partnerships or limited liability companies. Investments in Real Assets include:

Real Estate — includes investments in private vehicles through limited partnerships or commingled vehicles that have an ownership interest in direct real estate properties. The investment strategies may include “value added” strategies, which derive their return from both income and appreciation, “opportunistic”, which derive their return primarily through appreciation, and “alternative” which invest in less traditional types of property. Both domestic and international real estate funds are utilized. The SIB has a dedicated sub-asset class for these types of investments within global real assets. There are currently 11 different real estate funds in the portfolio. Three of those funds are open-ended vehicles that accept redemption requests quarterly with a 30-90 day notification period. One fund is in wind-down and will be distributing the final proceeds within the next 6-12 months. The remaining seven funds are closed-ended limited partnerships that are not eligible for redemptions. Those eight funds have a combined unfunded commitment of \$79.2 million and \$78.4 million as of June 30, 2018 and 2017, respectively.

Timberland — includes investments in limited liability companies that have an ownership interest in properties where the value of the property is derived mainly from income-producing timber but also from the “higher and better use” value of the underlying land. The SIB includes these assets within its global real assets allocations. There are three funds in the portfolio and they have no unfunded commitments. The funds are not eligible for redemption other than distributions of income and/or proceeds as determined by the investment manager. The funds have remaining lives of 2-8 years.

Infrastructure — includes investments in limited partnerships that have an ownership interest in transportation assets such as toll roads, tunnels and bridges; and regulated assets such as electricity transmission, gas and oil distribution and wastewater collection. Other possible investments would include communication assets and social infrastructure. The SIB includes these assets within its global real assets allocations. The infrastructure investments in the portfolio as of June 30, 2018 and 2017, include both open and closed-ended funds. The open-ended funds have no unfunded commitments and are eligible for redemptions quarterly with 90 days notice. There may be a 3-12 month queue for receiving redemptions. The closed-ended funds have unfunded commitments of \$186.3 million and \$85.0 million at June 30, 2018 and 2017, respectively, and are not eligible for redemptions.

Securities Lending

State statutes permit and the SIB has authorized the use of securities lending – loans of securities to broker-dealers and other entities for collateral with a simultaneous agreement to return the collateral for the same securities in the future. Northern Trust is the securities lending agent for the SIB. Securities are loaned versus collateral that may include cash, U.S. government securities and irrevocable letters of credit. U.S. securities are loaned versus collateral valued at 102% of the fair value of the securities plus any accrued interest. Non-U.S. securities are loaned versus collateral valued at 105% of the fair value of the securities plus any accrued interest.

Non-cash collateral cannot be pledged or sold unless the borrower defaults. All securities loans can be terminated on demand by either the lender or the borrower, although the average term of SIB loans was approximately 61 and 59 days as of June 30, 2018 and 2017, respectively. Cash open collateral is invested in a short term investment pool, which had an interest sensitivity of 3 days and 3 days as of June 30, 2018 and 2017. This pool is valued based on amortized cost. There were no violations of legal or contractual provisions, no borrower or lending agent default losses known to the securities lending agent. There are no dividends or coupon payments owing

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

on the securities lent. Securities lending earnings are credited to participating clients on approximately the fifteenth day of the following month.

Indemnification deals with the situation in which a client's securities are not returned due to the insolvency of a borrower and Northern Trust has failed to live up to its contractual responsibilities relating to the lending of those securities. Northern Trust's responsibilities include performing appropriate borrower and collateral investment credit analyses, demanding adequate types and levels of collateral, and complying with applicable

Department of Labor and Federal Financial Institutions Examination Council regulations concerning securities lending.

For securities loaned at fiscal year end, the SIB has no credit risk exposure to borrowers because the amounts the SIB owes the borrowers exceeds the amounts the borrowers owe the SIB.

The following represents the balances relating to the securities lending transactions at June 30, 2018 and 2017 (expressed in thousands).

		Non-Cash Collateral Value	Cash Collateral Investment Value
2018	Securities Lent		
Lent for cash collateral:			
US agency securities	\$ 27	\$ -	\$ 28
US government securities	885	-	909
US corporate fixed income securities	19,599	-	20,129
Global corporate fixed income securities	942	-	990
US equities	22,812	-	23,365
Global equities	2,583	-	2,714
Lent for non-cash collateral:			
US agency securities	751	772	-
US government securities	3,894	4,005	-
US corporate fixed income securities	149,102	153,336	-
US equities	208,835	214,360	-
Global equities	41,776	44,399	-
Total	<u>\$ 451,206</u>	<u>\$ 416,872</u>	<u>\$ 48,135</u>

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

2017	Securities Lent	Non-Cash Collateral Value	Cash Collateral Investment Value
Lent for cash collateral:			
US agency securities	\$ 546	\$ -	\$ 558
US government securities	2,268	-	2,326
US corporate fixed income securities	23,063	-	23,596
Global government fixed income securities	3,285	-	3,443
US equities	43,984	-	45,032
Global equities	2,531	-	2,714
Lent for non-cash collateral:			
US agency securities	4,978	5,071	-
US government securities	2,089	2,128	-
US corporate fixed income securities	112,041	114,160	-
US equities	187,733	191,606	-
Global equities	40,229	42,734	-
Total	<u>\$ 422,747</u>	<u>\$ 355,699</u>	<u>\$ 77,669</u>

Note 4 - Capital Assets

	June 30, 2016	Additions	Retirements	June 30, 2017	Additions	Retirements	June 30, 2018
Office equipment	\$19,321	\$ 8,999	\$ (11,441)	\$16,879	\$ -	\$ -	\$16,879
Less accumulated depreciation on office equipment	(19,321)	(450)	11,441	(8,330)	(1,800)	-	(10,130)
Software	1,213,500	-	-	1,213,500	-	-	1,213,500
Less accumulated depreciation on software	(1,213,500)	-	-	(1,213,500)	-	-	(1,213,500)
	<u>\$ -</u>	<u>\$ 8,549</u>	<u>\$ -</u>	<u>\$ 8,549</u>	<u>\$ (1,800)</u>	<u>\$ -</u>	<u>\$ 6,749</u>

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Note 5 - State Agency Transactions**Due To/From Other State Agencies**

Amounts due from/to other state agencies are as follows as of June 30, 2018 and 2017:

	2018	2017
Due To		
Information Technology Department	\$ 7,280	\$ 6,617
Office of Administrative Hearings	33	-
Office of Attorney General	7,157	1,356
Office of Management and Budget	69	289
Total due to other state agencies	<u>\$ 14,539</u>	<u>\$ 8,262</u>
Due From		
Public Employees Retirement System	\$ 174	\$ -
Surplus Property	-	50
Total due from other state agencies	<u>\$ 174</u>	<u>\$ 50</u>

These balances are a result of a time lag between the dates that services are provided, the payments are made, and the transactions are entered into the accounting system.

TFFR members. Rent expense totaled \$87,766 and \$82,861 for fiscal years 2018 and 2017, respectively. Minimum payments under the lease for fiscal 2019 are \$86,171 annually.

Note 6 - Operating Leases

RIO leased office space under an operating lease effective July 1, 2017 through June 30, 2023. RIO also incurs rent expense at other locations on a temporary basis to sponsor retirement education for

Note 7 - Changes in Noncurrent Liabilities

Changes in noncurrent liabilities are included in accrued expenses in the statements of changes in net position. The changes for the years ended June 30, 2018 and 2017 are summarized as follows:

	Beginning Balance 7/1/2017	Additions	Reductions	Ending Balance 6/30/2018	Amounts Due Within One Year
Accrued Leave	<u>\$176,864</u>	<u>\$144,638</u>	<u>(\$125,423)</u>	<u>\$196,079</u>	<u>\$117,453</u>
	Beginning Balance 7/1/2016	Additions	Reductions	Ending Balance 6/30/2017	Amounts Due Within One Year
Accrued Leave	<u>\$171,503</u>	<u>\$144,423</u>	<u>(\$139,062)</u>	<u>\$176,864</u>	<u>\$109,212</u>

Pension and Investment Trust Funds liquidate the accrued annual leave.

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Note 8 - North Dakota Teachers' Fund for Retirement**Administration**

The following brief description of TFFR is provided for general information purposes only. Participants should refer to NDCC Chapter 15-39.1 for more complete information.

TFFR is a cost-sharing multiple-employer defined benefit pension plan covering all North Dakota public teachers and certain other teachers who meet various membership requirements. TFFR provides for pension, death and disability benefits. The cost to administer the TFFR plan is financed by investment income and contributions.

Responsibility for administration of the TFFR benefits program is assigned to a seven-member

Board of Trustees (Board). The Board consists of the State Treasurer, the Superintendent of Public Instruction, and five members appointed by the Governor. The appointed members serve five-year terms which end on June 30 of alternate years. The appointed Board members must include two active teachers, one active school administrator, and two retired members. The TFFR Board submits any necessary or desirable changes in statutes relating to the administration of the fund, including benefit terms, to the Legislative Assembly for consideration. The Legislative Assembly has final authority for changes to benefit terms and contribution rates.

Membership

As of June 30, 2018 and 2017, the number of participating employer units was 214 and 215, respectively, consisting of the following:

	<u>June 30, 2018</u>	<u>June 30, 2017</u>
Public School Districts	176	176
County Superintendents	6	6
Special Education Units	19	19
Vocational Education Units	4	5
Other	9	9
Total	<u>214</u>	<u>215</u>

TFFR's membership consisted of the following:

	<u>2018</u>	<u>2017</u>
Retirees and beneficiaries currently receiving benefits	8,743	8,501
Terminated employees - vested	1,623	1,600
Terminated employees - nonvested	971	878
Total	<u>11,337</u>	<u>10,979</u>
Current employees		
Vested	7,696	7,543
Nonvested	3,185	3,331
Total	<u>10,881</u>	<u>10,874</u>

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Member and Employer Contributions

Member and employer contributions paid to TFFR are set by NDCC Section 15-39.1-09. Every eligible teacher in the State of North Dakota is required to be a member of TFFR and is assessed at a rate of 11.75% of salary as defined by NDCC Section 15-39.1-04. Every governmental body employing a teacher must also pay into TFFR a sum equal to 12.75% of the teacher's salary. Member and employer contributions will be reduced to 7.75% each when the fund reaches 100% funded ratio on an actuarial basis.

A vested member who terminates covered employment may elect a refund of contributions paid plus 6% interest or defer payment until eligible for pension benefits. A nonvested member who terminates covered employment must claim a refund of contributions paid before age 70½. Refunded members forfeit all service credits under TFFR. These service credits may be repurchased upon return to covered employment under certain circumstances, as defined by the NDCC.

Pension Benefits

For purposes of determining pension benefits, members are classified within one of three categories. Tier 1 grandfathered and Tier 1 non-grandfathered members are those with service credit on file as of July 1, 2008. Tier 2 members are those newly employed and returning refunded members on or after July 1, 2008.

Tier 1 Grandfathered

A Tier 1 grandfathered member is entitled to receive unreduced benefits when three or more years of credited service as a teacher in North Dakota have accumulated, the member is no longer employed as a teacher and the member has reached age 65, or the sum of age and years of service credit equals or exceeds 85. TFFR permits early retirement from ages 55 to 64, with benefits actuarially reduced by 6% per year for every year the member's retirement age is less than 65 years or the date as of which age plus service equal 85. In either case, benefits may not exceed the maximum benefits specified in Section 415 of the Internal Revenue Code.

Pension benefits paid by TFFR are determined by

NDCC Section 15-39.1-10. Monthly benefits under TFFR are equal to the three highest annual salaries earned divided by 36 months and multiplied by 2.00% times the number of service credits earned. Retirees may elect payment of benefits in the form of a single life annuity, 100% or 50% joint and survivor annuity, ten or twenty-year term certain annuity, partial lump-sum option or level income with Social Security benefits. Members may also qualify for benefits calculated under other formulas.

Tier 1 Non-grandfathered

A Tier 1 non-grandfathered member is entitled to receive unreduced benefits when three or more years of credited service as a teacher in North Dakota have accumulated, the member is no longer employed as a teacher and the member has reached age 65, or has reached age 60 and the sum of age and years of service credit equals or exceeds 90. TFFR permits early retirement from ages 55 to 64, with benefits actuarially reduced by 8% per year from the earlier of age 60/Rule of 90 or age 65. In either case, benefits may not exceed the maximum benefits specified in Section 415 of the Internal Revenue Code.

Pension benefits paid by TFFR are determined by NDCC Section 15-39.1-10. Monthly benefits under TFFR are equal to the three highest annual salaries earned divided by 36 months and multiplied by 2.00% times the number of service credits earned. Retirees may elect payment of benefits in the form of a single life annuity, 100% or 50% joint and survivor annuity, ten or twenty-year term certain annuity, partial lump-sum option or level income with Social Security benefits. Members may also qualify for benefits calculated under other formulas.

Tier 2

A Tier 2 member is entitled to receive unreduced benefits when five or more years of credited service as a teacher in North Dakota have accumulated, the member is no longer employed as a teacher and the member has reached age 65, or has reached age 60 and the sum of age and years of service credit equals or exceeds 90. TFFR permits early retirement from ages 55 to 64, with benefits actuarially reduced by 8% per year from the earlier of age 60/Rule of 90 or age 65. In either case, benefits may not exceed the maximum benefits specified in Section 415 of the

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Internal Revenue Code.

Pension benefits paid by TFFR are determined by NDCC Section 15-39.1-10. Monthly benefits under TFFR are equal to the five highest annual salaries earned divided by 60 months and multiplied by 2.00% times the number of service credits earned. Retirees may elect payment of benefits in the form of a single life annuity, 100% or 50% joint and survivor annuity, ten or twenty-year term certain annuity, partial lump-sum option or level income with Social Security benefits. Members may also qualify for benefits calculated under other formulas.

Death and Disability Benefits

Death benefits may be paid to a member's designated beneficiary. If a member's death occurs before retirement, the benefit options available are determined by the member's vesting status prior to death. If a member's death occurs after retirement, the death benefit received by the beneficiary (if any) is based on the retirement plan the member selected at retirement.

An active member is eligible to receive disability benefits when: (a) a total disability lasting 12 months or more does not allow the continuation of teaching, (b) the member has accumulated five years of credited service in North Dakota, and (c) the Board of Trustees of TFFR has determined eligibility based

upon medical evidence. The amount of the disability benefit is computed by the retirement formula in NDCC Section 15-39.1-10 without consideration of age and uses the member's actual years of credited service. There is no actuarial reduction for reason of disability retirement.

Investment Rate of Return

The annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 9.15% and 12.81% for the years ended June 30, 2018 and 2017, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Realized Gains and Losses

Realized gains and losses on sales of investments are components of net change in fair value of investments and are computed as described in Note 1. For the years ended June 30, 2018 and 2017, TFFR had net realized gains of \$108,984,395 and \$72,282,438, respectively.

Net Pension Liability

The components of the net pension liability of TFFR at June 30, 2018 and 2017 (expressed in thousands), were as follows:

	June 30, 2018	June 30, 2017
Total pension liability	\$ 3,863,515	\$ 3,734,017
Plan fiduciary net position	(2,530,657)	(2,360,491)
Net pension liability (NPL)	<u>\$ 1,332,858</u>	<u>\$ 1,373,526</u>
Plan fiduciary net position as a percentage of the total pension liability	65.5%	63.2%

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of July 1, 2018 and 2017, using

the following actuarial assumptions:

Valuation date	July 1, 2018	July 1, 2017
Inflation	2.75%	2.75%
Salary increases	4.25% to 14.50%; varying by service, including inflation and productivity	4.25% to 14.50%; varying by service, including inflation and productivity
Cost of living adjustments	None	None
Investment rate of return	7.75% net of investment expenses, including inflation	7.75% net of investment expenses, including inflation

For active and inactive members, mortality rates were based on the RP-2014 Employee Mortality Table projected generationally using Scale MP-2014. For healthy retirees, mortality rates were based on the RP-2014 Healthy Annuitant Mortality Table set back one year, multiplied by 50% for ages under 75 and grading up to 100% by age 80, projected generationally using Scale MP-2014. For disabled retirees, mortality rates were based on the RP-2014 Disabled Mortality Table set forward four years.

The actuarial assumptions used in the July 1, 2018 and 2017 valuations were based on the results of an actuarial experience study dated April 30, 2015, for the period July 1, 2009 – June 30, 2014. An actuarial experience study is generally conducted every five years.

The TFFR Board is responsible for establishing investment policy for the fund assets under NDCC 15-39.1-05.2. Benefit payments are projected to occur over a long period of time. This allows TFFR to adopt a long-term investment horizon and asset allocation policy for the management of fund assets. Asset allocation policy is critical because it defines the basic risk and return characteristics of the

investment portfolio. Asset allocation targets are established using an asset-liability analysis designed to assist the Board in determining an acceptable volatility target for the fund and an optimal asset allocation policy mix. This asset-liability analysis considers both sides of the plan balance sheet, utilizing both quantitative and qualitative inputs, in order to estimate the potential impact of various asset class mixes on key measures of total plan risk, including the resulting estimated impact of funded status and contribution rates.

The long-term expected rate of return on TFFR investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of 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 weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the TFFR target asset allocation as of June 30, 2018 and 2017 are summarized in the following tables:

2018	Long-Term Expected	
Asset Class	Target Allocation	Real Rate of Return
Global Equity	58.0%	6.7%
Global Fixed Income	23.0%	1.5%
Global Real Assets	18.0%	5.1%
Cash Equivalents	1.0%	0.0%

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

2017		Long-Term Expected
Asset Class	Target Allocation	Real Rate of Return
Global Equity	58.0%	6.7%
Global Fixed Income	23.0%	0.8%
Global Real Assets	18.0%	5.2%
Cash Equivalents	1.0%	0.0%

Private equity is included in the Global Equity asset class.

As part of the most recent asset/liability study, the total fund real rate of return was upwardly adjusted by 0.50% to reflect a longer investment time horizon than is assumed in the investment consultant's expected returns and to account for above benchmark returns achieved through active management. In order to estimate the nominal rate of return, the real rate of return was adjusted upward by 2.75% for expected inflation.

Discount Rate

The discount rate used to measure the total pension liability was 7.75% as of June 30, 2018 and 2017. The projection of cash flows used to determine the discount rate assumed that member and employer contributions will be made at rates equal to those based on the July 1, 2018 and 2017 Actuarial Valuation Report. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are

intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, TFFR's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members as of July 1, 2018 and 2017. Therefore, the long-term expected rate of return on TFFR investments was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2018 and 2017.

Sensitivity of Net Pension Liability

The following presents the net pension liability of the TFFR employers calculated using the discount rate of 7.75% as of June 30, 2018 and 2017, as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

2018	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
Employers' net pension liability	\$ 1,799,744,383	\$ 1,332,858,315	\$ 944,554,161
2017	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
Employers' net pension liability	\$ 1,826,126,843	\$ 1,373,525,753	\$ 996,748,988

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Note 9 - ND Public Employees Retirement System (NDPERS)

Permanent employees of RIO participate in the pension and other post-employment benefit (OPEB) plans of NDPERS, which is also an agency of the State of North Dakota financial reporting entity and is included in the State of North Dakota's Comprehensive Annual Financial Report. The following brief description of NDPERS is provided for general information purposes only. Participants should refer to NDCC Chapter 54-52 for more complete information.

NDPERS pension (Main System) and OPEB plans are cost-sharing multiple-employer defined benefit plans that cover employees/retirees of the State of North Dakota, its agencies and various participating political subdivisions. NDPERS pension plan provides for pension, death and disability benefits. NDPERS OPEB plan provides a credit toward the monthly health insurance premium of members receiving retirement benefits from the PERS, HPRS and Judges retirement under Chapter 27-17 of the North Dakota Century Code. Effective July 1, 2015, the credit is also available to apply towards monthly premiums under the state dental, vision and long-term care plan and any other health insurance plan. The cost to administer the pension plan is financed through the contributions and investment earnings of the plan. The Retiree Health Insurance Credit Fund is advance-funded on an actuarially determined basis.

Responsibility for administration of the NDPERS defined benefit pension and OPEB plans is assigned to a Board comprised of nine members. The Board consists of a Chairman, who is appointed by the Governor, one member appointed by the Attorney General, one member appointed by the State Health Officer, three members elected by the active membership of the NDPERS system, one member elected by the retired public employees and two members of the legislative assembly appointed by the chairman of the legislative management.

Pension Benefits

Benefits are set by statute. NDPERS has no provisions or policies with respect to automatic and ad hoc post-retirement benefit increases. Members of the Main System are entitled to unreduced

monthly pension benefits beginning when the sum of age and years of credited service equal or exceed 85 (Rule of 85), or at normal retirement age (65). For members hired on or after January 1, 2016 the Rule of 85 is replaced with the Rule of 90 with a minimum age of 60. The monthly pension benefit is equal to 2.00% of their average monthly salary, using the highest 36 months out of the last 180 months of service, for each year of service. The plan permits early retirement at ages 55-64 with three or more years of service.

Members may elect to receive the pension benefits in the form of a single life, joint and survivor, term-certain annuity, or partial lump sum with ongoing annuity. Members may elect to receive the value of their accumulated contributions, plus interest, as a lump sum distribution upon retirement or termination, or they may elect to receive their benefits in the form of an annuity. For each member electing an annuity, total payment will not be less than the members' accumulated contributions plus interest.

Death and Disability Benefits

Death and disability benefits are set by statute. If an active member dies with less than three years of service, a death benefit equal to the value of the member's accumulated contributions, plus interest, is paid to the member's beneficiary. If the member has earned more than three years of credited service, the surviving spouse will be entitled to a single payment refund, life-time monthly payment in an amount equal to 50% of the member's accrued normal retirement benefit, or monthly payments in an amount equal to the member's accrued 100% Joint and Survivor retirement benefit if the member had reached normal retirement age prior to date of death. If the surviving spouse dies before the member's accumulated pension benefits are paid, the balance will be payable to the surviving spouse's beneficiary.

Eligible members, who become totally disabled after a minimum of 180 days of service, receive monthly disability benefits equal to 25% of their final average salary with a minimum benefit of \$100. To qualify under this section, the member has to become disabled during the period of eligible employment and apply for benefits within one year of termination. The definition for disabled is set by the System in the

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

North Dakota Administrative Code.

Refunds of Member Contributions

Upon termination, if a member is not vested (is not 65 or does not have three years of service credited for the NDPERS) they will receive the accumulated member contributions plus interest, or may elect to receive this amount at a later date. If a member has vested, they have the option of applying for a refund or can remain as a terminated vested participant. If a member terminated and withdrew their accumulated member contributions and is subsequently reemployed, they have the option of repurchasing their previous service.

- 1 to 12 months of service – Greater of one percent of monthly salary or \$25
- 13 to 24 months of service – Greater of two percent of monthly salary or \$25
- 25 to 36 months of service – Greater of three percent of monthly salary or \$25
- Longer than 36 months of service – Greater of four percent of monthly salary or \$25

OPEB Benefits

The employer contribution for the PERS, the HPRS and the Defined Contribution Plan is set by statute at 1.14% of covered compensation. The employer contribution for employees of the state board of career and technical education is 2.99% of covered compensation for a period of eight years ending October 1, 2015. Employees participating in the retirement plan as part-time/temporary members are required to contribute 1.14% of their covered compensation to the Retiree Health Insurance Credit Fund. Employees purchasing previous service credit are also required to make an employee contribution to the Fund. The benefit amount applied each year is shown as "prefunded credit applied" on the Statement of Changes in Plan Net Position for the OPEB trust funds.

Retiree health insurance credit benefits and death and disability benefits are set by statute. There are no provisions or policies with respect to automatic and ad hoc post-retirement benefit increases. Employees who are receiving monthly retirement benefits from the PERS, the HPRS, the Defined Contribution Plan, the Chapter 27-17 judges or an employee receiving disability benefits, or the spouse of a deceased annuitant receiving a surviving spouse benefit or if the member selected a joint and survivor option are eligible to receive a credit toward their monthly health insurance premium under the state health plan.

Member and Employer Contributions

Member and employer contributions paid to NDPERS are set by statute and are established as a percent of salaries and wages. Member contribution rates are 7% and employer contribution rates are 7.12% of covered compensation.

The member's account balance includes the vested employer contributions equal to the member's contributions to an eligible deferred compensation plan. The minimum member contribution is \$25 and the maximum may not exceed the following:

Effective July 1, 2015, the credit is also available to apply towards monthly premiums under the state dental, vision and long-term care plan and any other health insurance plan. The benefits are equal to \$5.00 for each of the employee's, or deceased employee's years of credited service not to exceed the premium in effect for selected coverage. The retiree health insurance credit is also available for early retirement with reduced benefits.

Pension & OPEB Liabilities, Pension & OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions & OPEB

At June 30, 2018 and 2017, RIO reported a liability of \$2,629,203 and \$1,490,832, respectively, for its proportionate share of the net pension and OPEB liability. Due to the net OPEB liability at June 30, 2017, being immaterial to the overall financial statements of RIO and the individual funds, no prior period adjustment was made. The net pension and OPEB liability was measured as of June 30, 2017 and 2016, and the total pension and OPEB liability used to calculate the net pension and OPEB liability was determined by an actuarial valuation as of that date. RIO's proportion of the net pension liability was based on RIO's share of covered payroll in the pension and OPEB plans relative to the covered payroll of all participating NDPERS Main System and OPEB employers. At June 30, 2017, RIO's

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

pension plan proportion was 0.156317 percent and as of June 30, 2016, RIO's proportion was 0.152969 percent. RIO's OPEB plan proportion was 0.147503% as of June 30, 2017 and 2016.

RIO recognized pension and OPEB expense of

\$405,602 and \$121,469 for the years ended June 30, 2018 and 2017, respectively. At June 30, 2018 and 2017, RIO reported deferred outflows of resources and deferred inflows of resources related to pensions and OPEB from the following sources:

	Deferred Outflows of Resources		Deferred Inflows of Resources	
	2018	2017	2018	2017
Differences between expected and actual experience	\$ 14,934	\$ 22,395	\$ 15,088	\$ 13,805
Changes in assumptions	1,041,506	137,436	56,669	74,065
Net differences between projected and actual earnings on plan investments	33,791	207,993	4,411	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	138,324	155,225	268	-
Employer contributions subsequent to the measurement date	129,449	113,616	-	-
Total	<u>\$ 1,358,004</u>	<u>\$ 636,665</u>	<u>\$ 76,436</u>	<u>\$ 87,870</u>

Deferred outflows of resources related to pensions and OPEB resulting from employer contributions subsequent to the measurement date in the amount of \$129,449 will be recognized as a reduction of the net pension liability in the year ended June 30, 2019.

Other amounts reported as deferred outflows of resources and (deferred inflows of resources) related to pensions and OPEB will be recognized in pension expense as follows:

Year Ended June 30	
2019	\$ 261,128
2020	307,595
2021	271,889
2022	202,198
2023	107,533
Thereafter	1,776
	<u>\$ 1,152,119</u>

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Actuarial assumptions

The total pension and OPEB liabilities in the July 1, 2017 and 2016 actuarial valuation were determined using the following actuarial assumptions, applied to all periods included in the measurement:

2018 – Pension Plan

Inflation		3.50%
Salary increases	Service at Beginning of Year:	Increase Rate:
	0	15.00%
	1	10.00%
	2	8.00%
	Age*	
	Under 36	8.00%
	36 - 40	7.50%
	41 - 49	6.00%
	50+	5.00%

*Age-based salary increase rates apply for employees with three or more years of service

Investment rate of return	7.75%, net of investment expenses
Cost-of-living adjustments	None

2017 - Pension Plan

Inflation	3.50%
Salary increase (Payroll Growth)	4.50% per annum
Investment Rate of Return	8.00%, net of investment expenses
Cost of Living Adjustment	None

For active members, inactive members and healthy retirees, mortality rates were based on the RP-2000 Combined Healthy Mortality Table set back two years for males and three years for females, projected generationally using the SSA 2014 Intermediate Cost scale from 2014. For disabled retirees, mortality rates were based on the RP-2000 Disabled Mortality Table set back one year for males (no setback for females) multiplied by 125%.

The actuarial assumptions used were based on the results of an actuarial experience study completed in

2015. They are the same as the assumptions used in the July 1, 2017 and 2016, funding actuarial valuation for NDPERS.

As a result of the 2015 actuarial experience study, the NDPERS Board adopted several changes to the actuarial assumptions effective July 1, 2015. This includes changes to the mortality tables, disability incidence rates, retirement rates, administrative expenses, salary scale, and percent married assumption.

OPEB Plan

Inflation	2.50%
Salary increase	Not applicable
Investment Rate of Return	7.50%, net of investment expenses
Cost of Living Adjustment	None

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

For active members, inactive members and healthy retirees, mortality rates were based on the RP-2000 Combined Healthy Mortality Table set back two years for males and three years for females, projected generationally using the SSA 2014 Intermediate Cost scale from 2014. For disabled retirees, mortality rates were based on the RP-2000 Disabled Mortality Table set back one year for males (no setback for females) multiplied by 125%.

The long-term expected rate of return on pension and OPEB plan investments was determined using a

building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of 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 weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the plans' target asset allocations are summarized in the following table:

2018 - Pension Plan		
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	57%	6.7%
Global Fixed Income	22%	1.0%
Global Real Assets	20%	5.2%
Cash Equivalents	1%	0.0%

2017 - Pension Plan		
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	58%	7.2%
Global Fixed Income	23%	1.1%
Global Real Assets	18%	5.2%
Cash Equivalents	1%	0.0%

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

2018 - OPEB Plan

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Large Cap Domestic Equity	37%	5.8%
Small Cap Domestic Equity	9%	7.1%
International Equity	14%	6.2%
Core-Plus Fixed Income	40%	1.6%

2017 - OPEB Plan

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Large Cap Domestic Equity	37%	6.4%
Small Cap Domestic Equity	9%	7.6%
International Equity	14%	6.8%
Core-Plus Fixed Income	40%	1.8%

Discount rate

For pension plans, GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the System to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The current employer and employee fixed rate contributions are assumed to be made in each future year. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. In years where assets are not projected to be sufficient to meet benefit payments, which is the case for the PERS pension plan as of June 30, 2017, the use of a municipal bond rate is required.

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of

return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

The pension plan's fiduciary net position was projected to be sufficient to make all projected future benefit payments through the year of 2061. Therefore, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2061, and the municipal bond rate was applied to all benefit payments after that date. For the purpose of this valuation, the expected rate of return on pension plan investments is 7.75%, the municipal bond rate is 3.56%, and the resulting Single Discount Rate is 6.44%.

The discount rate used to measure the total pension liability was 8 percent as of June 30, 2016. The

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

projection of cash flows used to determine the discount rate assumes that member and employer contributions will be made at rates equal to those based on the July 1, 2016, Actuarial Valuation Report. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments for current plan members as of June 30, 2016. 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 as of June 30, 2016.

The discount rate used to measure the total OPEB liability was 7.5%. The projection of cash flows used to determine the discount rate assumed plan member and statutory/Board approved employer contributions will be made at rates equal to those based on the July 1, 2017, and July 1, 2016, OPEB actuarial valuation reports. For this purpose, only

employer contributions that are intended to fund benefits of current OPEB members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the OPEB fiduciary net position was projected to be sufficient to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Sensitivity of the Employer's proportionate share of the net pension and OPEB liability to changes in the discount rate

The following presents the RIO's proportionate share of the net pension and OPEB liability calculated using the current discount rate, as well as what the RIO's proportionate share of the net pension and OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

2018			
	1% Decrease (5.44%)	Current Discount Rate (6.44%)	1% Increase (7.44%)
RIO's net pension liability	\$ 3,410,833	\$ 2,512,527	\$ 1,765,175
	1% Decrease (6.5%)	Current Discount Rate (7.5%)	1% Increase (8.5%)
RIO's net OPEB liability	146,065	116,676	91,486
2017			
	1% Decrease (7%)	Current Discount Rate (8%)	1% Increase (9%)
RIO's net pension liability	\$ 2,114,716	\$ 1,490,832	\$ 965,177

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June 30, 2018 and 2017

Pension and OPEB plan fiduciary net position

Detailed information about the pension and OPEB plans' fiduciary net position is available in the separately issued NDPERS Comprehensive Annual Financial Report. This report can be accessed on the NDPERS website utilizing the following link: <https://ndpers.nd.gov/about/financial/annual-report-archive/>.

Note 10 - Related Parties

As stated in Note 1, RIO is an agency of the State of North Dakota; as such, other agencies of the state are related parties.

Note 11 - Contingencies/Litigation

The State Investment Board has been named as a defendant in two cases, arising out of the Tribune and General Motors bankruptcy proceedings, relating to securities that were purchased by external investment managers in one or more portfolios held by the SIB on behalf of its investment client funds. Outside counsel has been retained for both cases, in addition to assistance received from the ND Office of Attorney General.

As of June 30, 2018, no liability has been recorded for the General Motors bankruptcy proceedings as it is too early in the litigation process to reasonably determine whether any payments will be required, but mediation efforts remain on-going. The claim against the SIB in the Tribune bankruptcy litigation has been dismissed, but a final order has not been entered because the Court has yet to decide the remaining claims in the case against unrelated defendants; however, the U.S. District Court has stayed the Trustee's request to amend the complaint to add a constructive fraudulent transfer claim pending the Second Circuit's disposition of the unrelated defendant's claims in light of the U.S. Supreme Court's decision in *Merit Management*. Any final judgment (including with respect to the claim against the SIB) is subject to appeal. Accordingly, no liability has been recorded at this time.

North Dakota Retirement and Investment Office

Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios

North Dakota Teachers' Fund for Retirement

Last 10 Fiscal Years*

(Dollars in thousands)

	2018	2017	2016	2015	2014
Total pension liability					
Service cost	\$ 78,041	\$ 75,476	\$ 68,239	\$ 60,618	\$ 56,752
Interest	287,375	276,412	265,440	249,064	237,821
Changes of benefit terms	-	-	-	-	-
Differences between expected and actual experience	(27,939)	(10,749)	(8,093)	2,209	9,347
Changes of assumptions	-	-	-	171,325	-
Benefit payments, including refunds of member contributions	(207,979)	(196,516)	(185,969)	(172,239)	(162,259)
Net change in total pension liability	129,498	144,623	139,617	310,977	141,661
Total pension liability - beginning	3,734,017	3,589,394	3,449,777	3,138,800	2,997,139
Total pension liability - ending (a)	<u>\$3,863,515</u>	<u>\$3,734,017</u>	<u>\$3,589,394</u>	<u>\$3,449,777</u>	<u>\$ 3,138,800</u>
Plan fiduciary net position					
Contributions - employer	\$ 86,676	\$ 86,059	\$ 82,840	\$ 78,422	\$ 62,355
Contributions - member	79,878	79,309	76,343	72,268	56,555
Contributions - purchased service credit	2,181	2,553	2,768	1,601	2,034
Contributions - other	194	236	45	172	48
Net investment income	211,345	266,688	8,239	73,205	294,246
Benefit payments, including refunds of member contributions	(207,979)	(196,516)	(185,969)	(172,239)	(162,259)
Administrative expenses	(2,129)	(2,173)	(1,852)	(1,923)	(1,586)
Net change in plan fiduciary net position	170,166	236,156	(17,586)	51,506	251,393
Plan fiduciary net position - beginning **	2,360,491	2,124,335	2,141,921	2,090,415	1,839,584
Plan fiduciary net position - ending (b)	<u>\$2,530,657</u>	<u>\$2,360,491</u>	<u>\$2,124,335</u>	<u>\$2,141,921</u>	<u>\$ 2,090,977</u>
Plan's net pension liability - ending (a) - (b)	<u>\$1,332,858</u>	<u>\$1,373,526</u>	<u>\$1,465,059</u>	<u>\$1,307,856</u>	<u>\$ 1,047,823</u>
Plan fiduciary net position as a percentage of the total pension liability	65.5%	63.2%	59.2%	62.1%	66.6%
Covered payroll	\$ 679,809	\$ 674,971	\$ 649,725	\$ 615,105	\$ 580,053
Plan's net pension liability as a percentage of covered payroll	196.1%	203.5%	225.5%	212.6%	180.6%

Notes to Schedule:

* Complete data for this schedule is not available prior to 2014.

** Beginning plan fiduciary net position restated in 2015 due to GASB 68 implementation.

Changes of assumptions: In 2015, amounts reported as changes of assumptions resulted primarily from a decrease in the investment return assumption from 8% to 7.75% and an updated mortality improvement scale.

North Dakota Retirement and Investment Office
Required Supplementary Information

Schedule of Employer Contributions
North Dakota Teachers' Fund for Retirement
Last 10 Fiscal Years
(Dollars in thousands)

Fiscal Year	Actuarially determined contribution	Contributions in relation to the actuarially determined contribution	Contribution deficiency (excess)	Covered payroll	Contributions as a percentage of covered payroll
2009	\$ 41,986	\$ 37,488	\$ 4,498	\$ 454,396	8.25%
2010	52,053	39,837	12,216	482,868	8.25%
2011	65,113	44,545	20,568	509,091	8.75%
2012	69,374	46,126	23,248	527,156	8.75%
2013	52,396	59,301	(6,905)	551,656	10.75%
2014	59,513	62,355	(2,842)	580,053	10.75%
2015	71,168	78,422	(7,254)	615,105	12.75%
2016	84,724	82,840	1,884	649,725	12.75%
2017	89,231	86,059	3,172	674,971	12.75%
2018	88,307	86,676	1,631	679,809	12.75%

Notes to Schedule

Valuation Date: Actuarially determined contributions for each fiscal year are based on the actuarial valuation as of the beginning of the year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, closed
Remaining amortization period	25 years
Asset valuation method	5-year smoothed market
Inflation	2.75%; decreased from 3.0% prior to July 1, 2015
Salary increases	4.25% - 14.5%, including inflation and productivity; 4.5% - 14.75% prior to July 1, 2015
Investment rate of return	7.75%, net of investment expenses, including inflation; rate was decreased from 8% beginning July 1, 2015
Retirement age	In the 2015 valuation, rates of retirement were changed to better reflect anticipated future experience. In the 2010 valuation, expected retirement ages of plan members were adjusted to more closely reflect actual experience.
Mortality	In the 2015 valuation, assumed life expectancies were adjusted as a result of adopting the RP-2014 mortality tables with generational improvement. In prior years, those assumptions were based on percentages of GRS post termination non-disabled tables and RP-2000 disabled-life tables.

North Dakota Retirement and Investment Office
Required Supplementary Information

Schedule of Investment Returns
North Dakota Teachers' Fund for Retirement
Last 10 Fiscal Years*

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Annual money-weighted rate of return, net of investment expense	9.15%	12.81%	0.39%	3.56%	16.35%	13.60%

***Note:** Annual money-weighted rates of return not available prior to 2013.

North Dakota Retirement and Investment Office
Required Supplementary Information

Schedule of Employer's Share of Net Pension and OPEB Liability
ND Public Employees Retirement System
Last 10 Fiscal Years*
(Dollars in thousands)

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
RIO's proportion of NDPERS net pension liability (asset)	0.156317%	0.152969%	0.145546%	0.121849%
RIO's proportion of NDPERS net OPEB liability (asset)	<u>0.147503%</u>			
RIO's proportionate share of NDPERS net pension liability (asset)	\$ 2,513	\$ 1,491	\$ 990	\$ 773
RIO's proportionate share of NDPERS net OPEB liability (asset)	<u>117</u>			
RIO's covered payroll	<u>\$ 1,596</u>	<u>\$ 1,507</u>	<u>\$ 1,377</u>	<u>\$ 1,026</u>
RIO's proportionate share of NDPERS net pension liability (asset) as a percentage of its covered payroll	157.46%	98.94%	71.90%	75.34%
RIO's proportionate share of NDPERS net OPEB liability (asset) as a percentage of its covered payroll	<u>7.31%</u>			
NDPERS Plan fiduciary net position as a percentage of the total pension liability	61.98%	70.46%	77.15%	77.70%
NDPERS Plan fiduciary net position as a percentage of the total OPEB liability	<u>59.78%</u>			

Notes to schedule:

*Complete data for this schedule is not available prior to 2015 for pension liability and prior to 2018 for OPEB liability.

Amounts presented for each fiscal year have a measurement date of the previous fiscal year end.

North Dakota Retirement and Investment Office
Required Supplementary Information

Schedule of Employer Pension and OPEB Contributions
ND Public Employees Retirement System
Last 10 Fiscal Years*
(Dollars in thousands)

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
RIO's Statutorily required pension contributions	\$ 112	\$ 114	\$ 107	\$ 98	\$ 73
RIO's Statutorily required OPEB contributions	18	18			
RIO's pension contributions in relation to the statutory required contribution	112	114	107	98	73
RIO's OPEB contributions in relation to the statutory required contribution	<u>18</u>	<u>18</u>			
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
RIO's Covered payroll	\$1,567	\$1,596	\$1,507	\$1,377	\$1,026
 RIO's pension contributions as a percentage of covered payroll	 7.12%	 7.12%	 7.12%	 7.12%	 7.12%
RIO's OPEB contributions as a percentage of covered payroll	1.14%	1.14%			

Notes to schedule:

*Complete data for this schedule is not available prior to 2014 for pension contributions and 2017 for OPEB contributions.

	Pension Pool Participants					Insurance Pool Participants						
	Public	Bismarck	Bismarck	City of	City of Grand Forks Park District	Workforce	State	State Bonding	Petroleum	Insurance	Cultural	Risk Mgmt
	Employees	City	City	Grand Forks		Safety &	Fire &		Tank	Regulatory	Endowment	
	Retirement	Employee	Police	Employee		Insurance	Tornado		Release	Trust	Fund	
	System	Pension Plan	Pension Plan	Pension Plan					Comp. Fund	Fund	Fund	
Assets:												
Investments												
Global equities	\$ 1,758,136,479	\$ 45,411,219	\$ 20,347,059	\$ 38,131,021	\$ 4,385,816	\$ 423,076,842	\$ 8,037,780	\$ -	\$ -	\$ 1,695,244	\$ 246,307	\$ 1,483,201
Global fixed income	711,111,712	33,668,838	11,617,747	15,323,940	1,690,211	1,053,618,793	12,590,595	1,851,487	3,031,127	1,963,236	166,390	3,177,996
Global real assets	523,555,401	19,382,533	7,856,074	9,511,050	657,776	417,515,875	-	-	-	-	22,531	-
Cash equivalents	24,962,756	505,569	201,498	578,342	29,331	19,307,985	2,301,209	1,532,584	3,077,600	1,970,317	13,408	247,570
Total investments	3,017,766,348	98,968,159	40,022,378	63,544,353	6,763,134	1,913,519,495	22,929,584	3,384,071	6,108,727	5,628,797	448,636	4,908,767
Invested sec lending collateral	8,901,748	299,313	122,399	205,941	12,246	5,229,084	82,158	5,503	8,910	15,367	1,999	19,500
Investment income receivable	6,456,644	209,347	83,870	88,855	9,523	9,598,168	137,200	27,143	58,544	8,995	191	47,449
Operating Cash	107,101	-	-	-	-	83,579	1,175	955	972	1,166	357	1,122
Miscellaneous receivable	8,089	-	-	-	-	5,192	62	9	17	5	1	14
Due from other state agency	-	-	-	-	-	-	-	-	-	-	-	-
Total assets	3,033,239,930	99,476,819	40,228,647	63,839,149	6,784,903	1,928,435,518	23,150,179	3,417,681	6,177,170	5,654,330	451,184	4,976,852
Deferred outflows of resources												
Related to pensions	158,043	-	-	-	-	105,691	1,273	188	369	101	24	313
Liabilities:												
Investment expenses payable	572,476	35,434	13,914	5,794	(976)	286,331	2,406	628	1,030	391	(41)	43
Securities lending collateral	8,901,748	299,313	122,399	205,941	12,246	5,229,084	82,158	5,503	8,910	15,367	1,999	19,500
Accounts payable	39,630	-	-	-	-	25,322	303	45	86	26	6	70
Accrued expenses	342,613	-	-	-	-	235,049	3,233	432	894	212	53	755
Miscellaneous payable	-	5,978	2,450	3,766	384	-	-	-	-	-	-	-
Due to other state agencies	743	-	-	-	-	477	6	1	2	-	-	1
Total liabilities	9,857,210	340,725	138,763	215,501	11,654	5,776,263	88,106	6,609	10,922	15,996	2,017	20,369
Deferred inflows of resources												
Related to pensions	8,690	-	-	-	-	6,624	107	13	29	-	1	30
Net position held in trust for external investment pool participants	\$ 3,023,532,073	\$ 99,136,094	\$ 40,089,884	\$ 63,623,648	\$ 6,773,249	\$ 1,922,758,322	\$ 23,063,239	\$ 3,411,247	\$ 6,166,588	\$ 5,638,435	\$ 449,190	\$ 4,956,766
Each participant unit is valued at \$1.00												
Participant units outstanding	3,023,532,073	99,136,094	40,089,884	63,623,648	6,773,249	1,922,758,322	23,063,239	3,411,247	6,166,588	5,638,435	449,190	4,956,766

North Dakota Retirement and Investment Office
Combining Statement of Net Position – Investment Trust Funds – Fiduciary Funds
June 30, 2018
(With Comparative Totals for 2017)

Insurance Pool Participants								Individual Investment Accounts					
Risk Mgmt Workers' Comp	ND Ass'n. of Counties Fund	PERS Group Insurance	Budget Stabilization Fund	City of Bismarck Deferred Sick Leave	City of Fargo FargoDome Fund	State Board of Medicine	Lewis & Clark Interpretive Center Endowment	Legacy Fund	Job Service of North Dakota	Tobacco Prevention and Control Fund	PERS Retiree Health Credit Fund	Totals	
												2018	2017
\$ 1,976,995	\$ 2,065,140	\$ -	\$ -	\$ 217,921	\$ 22,268,970	\$ 472,765	\$ 245,963	\$ 2,766,036,036	\$ 30,038,541	\$ 5,462,162	\$ 76,081,795	\$ 5,205,817,256	\$ 4,684,388,027
3,213,958	3,667,588	29,883,918	106,919,606	474,404	17,422,087	1,730,618	450,409	1,929,981,907	65,100,605	40,386,152	50,509,228	4,099,552,552	3,538,734,254
-	-	-	-	-	4,459,835	45,279	-	805,149,765	-	-	-	1,788,156,119	1,661,716,577
160,695	176,663	1,722,976	5,956,531	36,251	443,172	6,162	7,046	54,793,877	550,890	8,507,958	14,147	127,104,537	57,364,379
5,351,648	5,909,391	31,606,894	112,876,137	728,576	44,594,064	2,254,824	703,418	5,555,961,585	95,690,036	54,356,272	126,605,170	11,220,630,464	9,942,203,237
23,091	21,660	276,031	994,559	2,547	196,018	16,640	2,654	24,284,177	-	-	-	40,721,545	64,829,660
4,901	1,271	3,813	727,641	1,452	35,225	(3,707)	(133)	21,357,528	434	8,890	35	38,863,279	33,653,192
1,114	-	-	4,371	-	-	-	-	208,349	-	-	-	410,261	263,961
14	-	-	103	-	-	-	-	14,495	-	-	-	28,001	21,368
-	-	-	-	-	-	-	-	-	-	-	-	-	14
5,380,768	5,932,322	31,886,738	114,602,811	732,575	44,825,307	2,267,757	705,939	5,601,826,134	95,690,470	54,365,162	126,605,205	11,300,653,550	10,040,971,432
310	-	-	6,155	-	-	-	-	271,634	-	-	-	544,101	252,274
(278)	777	8,719	29,437	122	2,438	418	138	1,150,895	73,229	4,388	92,239	2,279,952	5,165,064
23,091	21,660	276,031	994,559	2,547	196,018	16,640	2,654	24,284,177	-	-	-	40,721,545	64,829,660
70	-	-	502	-	-	-	-	70,371	-	-	-	136,431	201,551
712	-	-	29,916	-	-	-	-	497,792	-	-	-	1,111,661	644,911
-	349	1,919	-	250	2,653	250	250	-	6,133	3,099	7,174	34,655	16,983
1	-	-	9	-	-	-	-	1,332	-	-	-	2,572	1,649
23,596	22,786	286,669	1,054,423	2,919	201,109	17,308	3,042	26,004,567	79,362	7,487	99,413	44,286,816	70,859,818
26	-	-	3,214	-	-	-	-	9,183	-	-	-	27,917	32,528
\$ 5,357,456	\$ 5,909,536	\$ 31,600,069	\$ 113,551,329	\$ 729,656	\$ 44,624,198	\$ 2,250,449	\$ 702,897	\$ 5,576,084,018	\$ 95,611,108	\$ 54,357,675	\$ 126,505,792	\$ 11,256,882,918	\$ 9,970,331,360
5,357,456	5,909,536	31,600,069	113,551,329	729,656	44,624,198	2,250,449	702,897	5,576,084,018	95,611,108	54,357,675	126,505,792	11,256,882,918	9,970,331,360

	Pension Pool Participants					Insurance Pool Participants						
	Public Employees Retirement System	Bismarck City Employee Pension Plan	Bismarck City Police Pension Plan	City of Grand Forks Employee Pension Plan	City of Grand Forks Park District Pension Plan	Workforce Safety & Insurance	State Fire & Tornado	State Bonding	Petroleum Tank Release Comp. Fund	Insurance Regulatory Trust Fund	Cultural Endowment Fund	Risk Mgmt
Additions:												
Investment income:												
Net change in fair value of investments	\$ 196,115,456	\$ 5,176,598	\$ 2,356,809	\$ 4,557,454	\$ 461,549	\$ 56,336,181	\$ 706,982	\$ (25,066)	\$ (39,367)	\$ 114,512	\$ 26,754	\$ 169,318
Interest, dividends and other income	66,566,132	2,310,859	921,416	1,398,714	123,586	47,422,961	488,940	65,328	115,418	61,910	9,983	114,213
	262,681,588	7,487,457	3,278,225	5,956,168	585,135	103,759,142	1,195,922	40,262	76,051	176,422	36,737	283,531
Less investment expenses	6,474,152	245,148	99,784	137,236	10,205	3,697,172	28,024	2,493	4,198	2,059	649	5,207
Net investment income	256,207,436	7,242,309	3,178,441	5,818,932	574,930	100,061,970	1,167,898	37,769	71,853	174,363	36,088	278,324
Securities lending activity:												
Securities lending income	284,370	9,040	3,739	6,237	460	200,862	2,926	136	229	348	72	595
Less Securities lending expenses	(56,854)	(1,808)	(746)	(1,246)	(92)	(40,117)	(584)	(28)	(45)	(69)	(13)	(118)
Net securities lending income	227,516	7,232	2,993	4,991	368	160,745	2,342	108	184	279	59	477
Purchase of units (\$1 per unit)	2,500,000	-	-	408,086	332,342	3,500,000	1,000,000	-	-	4,376,500	-	-
Total Additions	258,934,952	7,249,541	3,181,434	6,232,009	907,640	103,722,715	2,170,240	37,877	72,037	4,551,142	36,147	278,801
Deductions:												
Administrative Expenses	507,190	-	-	-	-	311,969	3,786	1,084	1,265	1,048	682	1,150
Redemption of units (\$1 per unit)	14,220,000	-	1,200,000	5,956,175	291,386	74,500,000	1,100,000	-	300,000	4,200,000	17,500	1,100,000
Total Deductions	14,727,190	-	1,200,000	5,956,175	291,386	74,811,969	1,103,786	1,084	301,265	4,201,048	18,182	1,101,150
Change in net position	244,207,762	7,249,541	1,981,434	275,834	616,254	28,910,746	1,066,454	36,793	(229,228)	350,094	17,965	(822,349)
Net position:												
Beginning of year	2,779,324,311	91,886,553	38,108,450	63,347,814	6,156,995	1,893,847,576	21,996,785	3,374,454	6,395,816	5,288,341	431,225	5,779,115
End of year	\$ 3,023,532,073	\$ 99,136,094	\$ 40,089,884	\$ 63,623,648	\$ 6,773,249	\$ 1,922,758,322	\$ 23,063,239	\$ 3,411,247	\$ 6,166,588	\$ 5,638,435	\$ 449,190	\$ 4,956,766

North Dakota Retirement and Investment Office
Combining Statement of Changes in Net Position – Investment Trust Funds – Fiduciary Funds
Year Ended June 30, 2018
(With Comparative Totals for 2017)

Insurance Pool Participants								Individual Investment Accounts					
Risk Mgmt Workers' Comp	ND Ass'n of Counties Fund	PERS Group Insurance	Budget Stabilization Fund	City of Bismarck Deferred Sick Leave	City of Fargo FargoDome Fund	State Board of Medicine	Lewis & Clark Interpretive Center Endowment	Legacy Fund	Job Service of North Dakota	Tobacco Prevention and Control Fund	PERS Retiree Health Credit Fund	Totals	
												2018	2017
\$ 215,550	\$ 109,928	\$ (534,557)	\$ (694,082)	\$ 17,889	\$ 2,364,132	\$ 23,597	\$ (1,265)	\$ 253,324,655	\$ 483,223	\$ 828,375	\$ 5,447,995	\$ 527,542,620	\$ 797,372,051
115,169	126,224	856,706	1,024,321	16,101	937,419	50,861	4,667	117,456,240	2,739,029	102,409	3,138,168	246,166,774	224,483,911
330,719	236,152	322,149	330,239	33,990	3,301,551	74,458	3,402	370,780,895	3,222,252	930,784	8,586,163	773,709,394	1,021,855,962
5,330	8,864	40,622	84,143	1,960	72,390	4,025	666	10,018,870	303,667	26,688	379,586	21,653,138	23,033,769
325,389	227,288	281,527	246,096	32,030	3,229,161	70,433	2,736	360,762,025	2,918,585	904,096	8,206,577	752,056,256	998,822,193
662	691	1,564	2,504	91	7,735	1,848	29	810,262	-	-	-	1,334,400	1,254,228
(131)	(138)	(312)	(499)	(17)	(1,544)	(368)	(7)	(161,927)	-	-	-	(266,663)	(250,628)
531	553	1,252	2,005	74	6,191	1,480	22	648,335	-	-	-	1,067,737	1,003,600
-	1,300,000	217,085,760	107,202,755	-	750,000	-	700,139	529,870,755	-	-	2,240,000	871,266,337	648,096,361
325,920	1,527,841	217,368,539	107,450,856	32,104	3,985,352	71,913	702,897	891,281,115	2,918,585	904,096	10,446,577	1,624,390,330	1,647,922,154
1,158	-	-	5,440	-	-	-	-	834,828	-	-	-	1,669,600	1,303,019
500,000	-	223,250,000	-	-	970,000	-	-	-	4,564,111	4,000,000	-	336,169,172	910,737,683
501,158	-	223,250,000	5,440	-	970,000	-	-	834,828	4,564,111	4,000,000	-	337,838,772	912,040,702
(175,238)	1,527,841	(5,881,461)	107,445,416	32,104	3,015,352	71,913	702,897	890,446,287	(1,645,526)	(3,095,904)	10,446,577	1,286,551,558	735,881,452
5,532,694	4,381,695	37,481,530	6,105,913	697,552	41,608,846	2,178,536	-	4,685,637,731	97,256,634	57,453,579	116,059,215	9,970,331,360	9,234,449,908
\$ 5,357,456	\$ 5,909,536	\$ 31,600,069	\$ 113,551,329	\$ 729,656	\$ 44,624,198	\$ 2,250,449	\$ 702,897	\$ 5,576,084,018	\$ 95,611,108	\$ 54,357,675	\$ 126,505,792	\$ 11,256,882,918	\$ 9,970,331,360

North Dakota Retirement and Investment Office
Pension and Investment Trust Funds – Schedule of Administrative Expenses
Years Ended June 30, 2018 and 2017

	Pension Trust		Investment Trust	
	2018	2017	2018	2017
Salaries and wages:				
Salaries and wages	\$ 792,299	\$ 819,284	\$ 792,288	\$ 795,303
Fringe benefits	568,887	392,012	419,698	294,409
Total salaries and wages	1,361,186	1,211,296	1,211,986	1,089,712
Operating expenses:				
Travel	15,062	23,870	35,114	25,098
Supplies	2,266	13,216	932	6,454
Postage and Mailing Services	36,993	55,577	13,593	31,428
Printing	15,606	17,106	4,500	6,375
Small Office Equipment and Furniture	2,908	30,542	1,339	12,589
Insurance	387	405	223	233
Rent/Lease of Building Space	55,396	51,561	32,370	31,300
Repairs	155	596	75	314
Information Technology and Communications	71,000	68,469	17,863	14,928
IT Contractual Services	109,750	173,580	443,184	212,767
Professional Development	8,184	13,563	2,878	4,189
Operating Fees and Services	15,106	16,445	21,014	22,148
Professional Fees and Services	15,629	10,446	22,771	9,619
Consultant Services	198,099	264,493	81,025	57,681
Total operating expenses	546,541	739,869	676,881	435,123
Pension trust portion of investment program expenses	219,267	221,816	(219,267)	(221,816)
Depreciation	1,800	450	-	-
Total administrative expenses	2,128,794	2,173,431	1,669,600	1,303,019
Capital assets purchased	-	8,999	-	-
Less - nonappropriated items:				
Consultant Services	198,099	264,493	81,025	57,681
Other operating fees paid under continuing appropriation	125,270	75,026	509,663	275,461
Depreciation	1,800	450	-	-
Accrual adjustments to employee benefits	255,922	75,607	168,895	51,223
Total nonappropriated items	581,091	415,576	759,583	384,365
Total appropriated expenditures	\$ 1,547,703	\$ 1,766,854	\$ 910,017	\$ 918,654

North Dakota Retirement and Investment Office
Schedule of Appropriations – Budget Basis – Fiduciary Funds
July 1, 2017 to June 30, 2019 Biennium

	Approved 2017-2019 Appropriation	2017-2019 Appropriation Adjustment	Adjusted 2017-2019 Appropriation	Fiscal 2018 Expenses	Unexpended Appropriations
All Fund Types:					
Salaries and wages	\$ 4,425,570	\$ -	\$ 4,425,570	\$ 2,148,355	\$ 2,277,215
Operating expenses	862,484	-	862,484	309,365	553,119
Contingency	52,000	-	52,000	-	52,000
Total	<u>\$ 5,340,054</u>	<u>\$ -</u>	<u>\$ 5,340,054</u>	<u>\$ 2,457,720</u>	<u>\$ 2,882,334</u>

NOTE: Only those expenses for which there are appropriations are included in this statement.

Reconciliation of Administrative Expenses
to Appropriated Expenditures

	2018
Administrative expenses as reflected in the financial statements	\$ 3,798,394
Less:	
Consulting Services*	(279,124)
Other operating fees paid under continuing appropriations*	(634,933)
Depreciation expense	(1,800)
Changes in benefit accrual amounts	<u>(424,817)</u>
Total appropriated expenses	<u>\$ 2,457,720</u>

* North Dakota Century Code 21-10-06.2 and 15-39.1-05.2 provide authorization for the continuing appropriation.

North Dakota Retirement and Investment Office
Pension and Investment Trust Funds – Schedule of Consultant Expenses
Years Ended June 30, 2018 and 2017

	Pension Trust		Investment Trust	
	2018	2017	2018	2017
Actuary fees:				
Cavanaugh MacDonald Consulting	\$ -	\$ 38,632	\$ -	\$ -
Segal Company	71,499	91,742	-	-
Total Actuary Fees	71,499	130,374	-	-
Auditing/Accounting fees:				
CliftonLarsonAllen LLP	82,527	108,987	29,073	28,213
Disability consulting fees:				
Sanford Health	425	300	-	-
Legal fees:				
K&L Gates LLP	16,541	3,152	21,646	4,171
Kasowitz, Benson, Torres & Friedman	197	1,357	309	1,777
Jackson Walker LLP	3,105	-	9,316	-
ND Attorney General	23,805	20,323	20,681	23,520
Total legal fees:	43,648	24,832	51,952	29,468
Total consultant expenses	<u>\$ 198,099</u>	<u>\$ 264,493</u>	<u>\$ 81,025</u>	<u>\$ 57,681</u>

North Dakota Retirement and Investment Office
Pension and Investment Trust Funds – Schedule of Investment Expenses
Years Ended June 30, 2018 and 2017

	Pension Trust		Investment Trust	
	2018	2017	2018	2017
Investment managers' fees:				
Global equity managers	\$ 1,380,401	\$ 1,426,842	\$ 1,794,894	\$ 1,835,909
Domestic large cap equity managers	(368,098)	551,198	557,670	3,136,644
Domestic small cap equity managers	586,340	455,668	1,544,538	1,424,504
International equity managers	954,958	852,764	6,229,944	5,315,874
Emerging markets equity managers	697,607	633,942	1,124,677	955,585
Domestic fixed income managers	1,593,550	2,017,975	11,337,399	12,073,101
Below investment grade fixed income managers	1,953,550	1,383,336	2,675,936	1,997,463
Diversified Real Assets	-	-	4,036,212	2,634,755
International fixed income managers	270,428	423,318	311,924	481,699
Real estate managers	2,660,866	2,541,836	5,965,804	5,885,718
Infrastructure managers	1,316,541	803,006	1,681,789	990,596
Timber managers	395,760	437,057	480,991	524,309
Private equity managers	1,513,944	1,225,954	1,773,739	1,436,330
Short term fixed income managers	-	-	122,965	347,423
Cash & equivalents managers	36,561	20,203	165,053	60,352
Balanced account managers	-	-	965,154	896,911
Total investment managers' fees	\$ 12,992,408	\$ 12,773,099	\$ 40,768,689	\$ 39,997,173
Custodian fees	233,938	213,843	927,794	839,740
Investment consultant fees	150,251	124,539	566,574	446,215
SIB Service Fees	-	-	82,764	70,812
Total investment expenses	\$ 13,376,597	\$ 13,111,481	\$ 42,345,821	\$ 41,353,940

Reconciliation of investment expenses to financial statements

	2018	2017	2018	2017
Investment expenses as reflected in the financial statements	\$ 5,352,945	\$ 6,011,791	\$ 21,653,138	\$ 23,033,769
Plus investment management fees included in investment income				
Domestic large cap equity managers	94,592	137,262	364,567	449,770
Domestic small cap equity managers	-	-	-	-
International equity managers	273,564	245,130	1,603,690	1,324,344
Emerging markets equity managers	697,608	633,942	1,124,677	955,585
Domestic fixed income managers	1,236,026	1,636,949	7,619,590	8,458,272
Below investment grade fixed income managers	1,541,521	984,510	2,133,969	1,427,213
Diversified real assets managers	-	-	2,037,750	937,298
Real estate managers	1,514,375	1,458,158	2,110,333	2,025,430
Infrastructure managers	758,699	340,728	974,220	419,451
Timber managers	395,760	437,057	480,991	524,309
Private equity managers	1,511,507	1,225,954	1,770,886	1,436,329
Cash equivalents managers	-	-	140,122	40,973
Balanced account managers	-	-	331,888	321,197
Investment expenses per schedule	\$ 13,376,597	\$ 13,111,481	\$ 42,345,821	\$ 41,353,940

This page intentionally blank.



INVESTMENT SECTION



3442 East Century Avenue | P.O. Box 7100 | Bismarck, ND 58507-7100
Telephone: 701-328-9885 | Toll Free: 800-952-2970 | Fax: 701-328-9897 | www.nd.gov/rio

December 1, 2018

Members of the
North Dakota State Investment Board
North Dakota Teachers' Fund for Retirement Board

Dear Board Members:

This report is a summary of the investment portfolios managed by the State Investment Board (SIB) and market environment for the fiscal year ended June 30, 2018.

Introduction

For the fiscal year ended June 30, 2018, the \$5.7 billion North Dakota pension investment pool portfolio experienced a net total return of 9.14%. The insurance investment pool, valued at \$2.2 billion on June 30, 2018, returned 5.21% (net), during the same time frame. The Legacy Fund, valued at \$5.6 billion the last day of the fiscal year returned 7.57% (net) over the same 12 months. The investment return calculations were prepared using a monthly time-weighted rate of return methodology based upon fair values and are subject to independent verification.

The pension and insurance investment pools are pooled investment funds. The pension pool was created in 1989 in an effort to realize cost savings through pooling of pension assets. The insurance pool was created in 1993 for similar reasons. A list of the participants and their ownership in each pool is provided in this section of the report. The pooled funds' strategies are a proportional reflection of the investment objectives of each of the participating funds. The returns experienced by the individual funds were consistent with their respective investment policies and related asset allocations.

The Legacy Fund was created by a constitutional amendment in 2010. The amendment provides that 30% of oil and gas gross production and oil extraction taxes on oil produced after June 30, 2011, be transferred to the Legacy Fund. The first transfer was received in September 2011. Transfers into the Legacy Fund totaled \$529.9 million during the fiscal year ended June 30, 2018.

Investment program details for the participating plans, including investment objectives and a listing of their external investment managers are presented in the Investment Section. The investment program's cost as measured by expense ratio is 55 basis points for the pension pool, 34 basis points for the insurance pool, and 32 basis points for the Legacy Fund and includes investment office administrative expenses, consultant fees, money manager fees and master custodian fees. Allocation of monthly income and expenses to the participants in the pools is based on a time-weighted beginning balance. A "time factor" and "time-weighted amount" are calculated for each plan based on individual plan-related activities. The time-weighted amounts are added up for all plan-related activities to compose the time-weighted beginning balance used to allocate the activity of the pool. Five-year annualized risk for the period ended June 30, 2018, as measured by standard deviation has been 4.8% for the pension pool, 2.6% for the insurance pool and 4.1% for the Legacy Fund. Risk exposure for each participating fund is also limited in accordance with the guidelines presented in the Investment Section.

Economic Overview as of June 30, 2018

In the second half of the 2017 calendar year, markets were characterized by low volatility and record highs across the S&P 500, NASDAQ, and Dow Jones Industrial Average (DJIA). The Chicago Board Options Exchange Volatility Index (VIX Index), a widely used measure of expected stock market volatility, fell more than 20% in 2017, reaching an all-time low in November. The U.S. economy was supported by strong GDP growth on the back of consumer spending and low unemployment. Growth was further fueled by the passing of significant tax reform which cut

corporate taxes in addition to reducing personal tax rates. International equities also performed well in the second half of calendar year 2017, bolstered by global growth. Emerging markets were a notable outperformer during the year as the region was supported by a weakening dollar and a global appetite for risk assets. Commodities also appreciated in the second half of calendar year 2017. Oil prices climbed dramatically on the back of global demand, particularly from China. The Federal Open Market Committee elected not to hike rates in its September meeting, but increased the targeted federal funds rate by 25 basis points (0.25%) in December. Investors' search for yield continued in the second half of calendar year 2017 which drove up both high yield and investment grade credit prices.

The beginning of the 2018 calendar year witnessed a continuation of 2017 market trends. Equities roared throughout January and the VIX approached its November lows. However, the seemingly impervious bull market showed signs of weakness in February as markets were rattled by a labor report that released low unemployment figures and rising wages. These signals were interpreted to be inflationary and on February 5th, the VIX spiked 116% as investors feared an accelerated rate hike schedule by the Federal Reserve. The expectations of inflation also impacted bond prices as yields rose. By the end of the first quarter, both bond and equity markets were negative in the U.S. In the second quarter, markets recovered as economic growth continued and corporate earnings remained strong. Headlines were soon dominated by geopolitical tensions as the U.S. launched an agenda of protectionist trade policies. Small cap equities outperformed larger peers as investors sought insulation from global conflict. Growth outperformed value, with the Technology and Consumer Discretionary sectors driving gains. Emerging Markets were challenged in 2018, hindered by a stronger dollar and global trade tensions. European markets were mixed, as generally positive economic data coincided with political turmoil in the way of tariffs, political scandal in Spain and a new populist coalition government in Italy. Rates in the U.S. climbed in 2018, with the Federal Reserve announcing 25 basis point hikes in both the first and second quarters.

U.S. GDP growth was strong during fiscal year 2018. The third estimate of GDP growth for the quarter ended June 30, 2018, in the U.S. reported an annualized rate of 4.2%. Euro zone GDP increased 2.1% over the same period. Positive growth and low unemployment in both regions have been overshadowed by the looming specter of trade wars and a potential slowing of the current bull market.

Domestic Equity

The fiscal year ended June 30, 2018, witnessed strong performance across U.S. equities, although returns generally fell short of the impressive figures posted in the 2017 fiscal year. The S&P 1500 Index, a broad market indicator for the U.S. stock market, finished the period up 14.50%. With a continuation of the prior fiscal year's trends, the S&P 600, a gauge of small cap stock performance, again outperformed its large cap peers. The S&P 600 rose 20.50% while the S&P 500 returned 14.37%. During the year, growth stocks significantly outperformed value stocks with the Russell 3000 Growth Index appreciating 22.47% versus a gain of 7.25% for the Russell 3000 Value Index.

International Equity

Developed international equity returns, as represented by the MSCI EAFE Index, also fell short of the returns achieved in the 2017 fiscal year. In the 2018 fiscal year, the index returned 6.84%, falling well short of the 20.27% gain of the prior fiscal year. Growth outpaced value in the international developed equity space. For the trailing 12-months ended June 30, 2018, the MSCI EAFE Value Index increased 4.25% while the MSCI EAFE Growth Index rose 9.41%. Emerging market equity returns were also positive, yet shy of those achieved in fiscal year 2017. The MSCI Emerging Markets Index returned 8.20% over the trailing 12-months ended June 30, 2018, after rising an impressive 23.75% for the trailing 12-months ended June 30, 2017. Overall, international stock markets underperformed those of the U.S.

Private Equity

Private equity continued to perform well in fiscal year 2018 as institutional investors placed significant capital into new programs. According to PitchBook, a private equity data services company, 824 new partnerships were formed raising \$476 billion in commitments during the past 12 months. Compared to fiscal year 2017, this is a decrease in the total number of new partnerships created (1,128), but an increase in dollars invested (\$322 billion). Due to the

nature of private equity performance measurement, relative comparisons of fund performance with benchmarks are inherently ambiguous.

Domestic Fixed Income

The U.S. bond market, as measured by the Bloomberg Aggregate Bond Index, fell 0.40% in fiscal year 2018. The Fed increased their target overnight rate three times during the period and rates rose across the curve, but particularly in the front end. The federal funds target rate range ended the fiscal year at 1.75% to 2.00%. Consequently, the Bloomberg Government/Credit Index fell 0.63% over the 12-month period and the Bloomberg Government Long Index dropped 0.13%. Credit oriented indexes produced mixed results during the period with the Bloomberg Credit index falling 0.65% and the Bloomberg Corporate High Yield Indexes rising 2.62%.

International Fixed Income

International developed fixed income markets performed well in the fiscal year 2018. The FTSE Non-U.S. World Government Hedged Bond Index climbed 3.56%. The FTSE Non-U.S. World Government Unhedged Bond Index produced a slightly lower 3.22% return. Sovereign yields in Europe declined during the fiscal year, although Italian government yields spiked in May of 2018 following political turmoil. The FTSE Euro Government Bond Index rose 4.10% in the fiscal year 2018. Emerging market countries, which have a credit perception similar to high yield, gave back some of the gains achieved in recent years. The JP Morgan Emerging Markets Bond Index Plus lost 1.60% over the 12-month period.

Real Estate

The NCREIF Property Index, a measure of the domestic direct private real estate market, gained 7.19% during the 2018 fiscal year. The index was positive in each of the four quarters, extending its winning streak to 34 straight quarters. The FTSE NAREIT Equity Index, a measure of the public real estate securities market, climbed 3.50% in fiscal year 2018, rebounding from the prior fiscal year's losses.

Timber

The timber sector experienced small declines to its market value and a modest increase in acreage during fiscal year 2018. As of June 30, 2018, the total size of the NCREIF Timberland Property Index was \$25.3 billion, representing approximately 14.0 million acres of land. Of the total index, the South region remains the largest, representing \$16.7 billion in market value and 9.5 million acres of land. For the fiscal year ending June 30, 2018, the NCREIF Timberland Property Index rose moderately, returning 3.57%, consisting of a 1.31% appreciation return and a 2.23% income return. The Northwest was the best performing region gaining 9.14%.

Infrastructure

By definition, infrastructure assets are essential to the economic health and productivity of civilized society. They include the basic facilities, services, and installations needed for the functioning of a community, such as transit and communications systems; both potable and sewage water lines; and electricity access. They also include such public entities as schools, post offices, and incarceration facilities. Most of these facilities have traditionally been owned and regulated by municipalities and states. The private sector's participation has been limited, to varying degrees, to the areas of design, construction, and operation. Budget and fiscal pressures can limit the ability of public authorities to maintain existing infrastructure, much less to build new facilities required by a growing population. In response to these problems, many municipalities and states have sold or are contemplating the sale of their infrastructure assets to private investors. Existing sources and studies of private infrastructure funds and benchmarks suffer from major limitations and cannot be considered representative of the performance of underlying assets, therefore relative comparisons are not meaningful.

Summary

Fiscal year 2018 was marked by strong investment returns across a variety of risk assets. With respect to relative performance, all three investment pools outperformed their respective policy benchmarks for the year. Performance was most favorably impacted by exposure to domestic and international equities, whereas international fixed income and timberland detracted from total fund performance.

While heartened by last year's performance, the North Dakota State Investment Board and Staff take a long-term perspective in its asset allocation, investment decisions, and performance evaluation. Over the past five years ending June 30, 2018, the pension and insurance pools and Legacy Fund returned 8.29%, 5.34%, and 6.06%, respectively; over the past ten years, which most closely approximates the most recent market cycle, the pension and insurance pools returned 5.66% and 4.88%, respectively.

Going forward, the State Investment Board and Staff will continue to focus on monitoring and managing strategic asset allocations that prudently balance the menu of risks deemed acceptable, particularly given elevated valuations of some asset classes as we enter the tenth year of continued economic expansion in the U.S. This includes carefully selecting and sizing a range of strategies and managers that we believe can achieve our clients' investment objectives in a sound fiduciary manner.

Sincerely,



DARREN SCHULZ, CFA
Deputy Chief Investment Officer



DAVID HUNTER
Executive Director/Chief Investment Officer

INVESTMENT PERFORMANCE SUMMARY

JUNE 30, 2018

	Fair Value	% Of Pool	Rates of Return (net of fees)									
			For Fiscal Year Ended 6/30					Annualized				
			2018	2017	2016	2015	2014	3 Years	5 Years	10 Years	20 Years	30 Years
PENSION POOL PARTICIPANTS												
Teachers' Fund for Retirement	\$2,485,835,312	43.5%	9.11%	12.92%	0.28%	3.52%	16.53%	7.30%	8.31%	5.54%	5.95%	7.98%
Public Employees Retirement System	3,024,222,992	52.9%	9.19%	13.05%	0.28%	3.53%	16.38%	7.37%	8.33%	5.81%	6.25%	8.16%
Bismarck City Employee Pension Fund	\$99,177,506	1.7%	7.86%	11.56%	0.82%	3.69%	14.56%	6.65%	7.58%	5.89%	6.10%	*
Bismarck City Police Pension Fund	\$40,106,248	0.7%	8.36%	12.24%	0.32%	3.56%	15.27%	6.86%	7.81%	5.88%	6.01%	*
City of Grand Forks Pension Fund	\$63,633,208	1.1%	9.46%	12.84%	0.11%	3.53%	16.33%	7.33%	8.29%	*	*	*
Grand Forks Park District Pension Fund	\$6,772,657	0.1%	9.33%	12.74%	0.36%	4.22%	16.44%	7.35%	8.47%	*	*	*
Subtotal Pension Pool Participants	5,719,747,923	100.0%										
INSURANCE POOL PARTICIPANTS												
Workforce Safety & Insurance Fund	1,923,117,663	88.6%	5.34%	8.29%	3.58%	3.27%	11.71%	5.72%	6.39%	5.95%	5.90%	7.56%
State Fire and Tornado Fund	23,066,784	1.1%	5.32%	9.30%	2.67%	3.16%	12.78%	5.73%	6.58%	6.56%	5.97%	7.00%
State Bonding Fund	3,411,214	0.2%	1.07%	2.40%	3.48%	1.25%	4.06%	2.31%	2.45%	1.66%	3.61%	5.43%
Petroleum Tank Release Fund	6,167,271	0.3%	1.13%	2.23%	3.17%	1.13%	3.68%	2.17%	2.26%	1.40%	3.37%	*
Insurance Regulatory Trust Fund	5,637,792	0.3%	4.53%	7.40%	1.46%	2.04%	9.88%	4.43%	5.01%	5.03%	5.14%	6.00%
State Risk Management Fund	4,956,216	0.2%	5.14%	8.27%	4.46%	4.08%	12.29%	5.94%	6.80%	7.13%	5.40%	*
State Risk Management Workers Comp	5,356,549	0.2%	6.03%	9.41%	4.21%	4.57%	13.68%	6.53%	7.52%	7.53%	*	*
Cultural Endowment Fund	448,827	0.0%	8.27%	12.71%	2.18%	5.22%	16.94%	7.63%	8.94%	7.75%	*	*
Budget Stabilization Fund	113,603,778	5.2%	0.32%	0.80%	1.82%	1.86%	1.94%	0.98%	1.35%	1.72%	*	*
ND Assoc. of Counties (NDACo) Fund	5,910,662	0.3%	4.48%	8.30%	2.76%	2.77%	11.61%	5.15%	5.93%	5.37%	*	*
City of Bismarck Deferred Sick Leave	730,028	0.0%	4.66%	8.85%	3.26%	2.95%	12.32%	5.56%	6.35%	6.63%	*	*
PERS Group Insurance	31,610,707	1.5%	0.41%	0.08%	1.49%	0.01%	0.00%	0.66%	0.40%	0.43%	*	*
State Board of Medicine	2,251,117	0.1%	3.12%	5.29%	1.63%	2.70%	*	3.34%	*	*	*	*
City of Fargo FargoDome Permanent Fund	44,629,289	2.1%	7.64%	12.25%	1.19%	3.38%	16.34%	6.93%	8.02%	7.28%	*	*
Lewis & Clark Interpretive Center Endowment	703,285	0.0%	*	*	*	*	*	*	*	*	*	*
Subtotal Insurance Pool Participants	2,171,601,182	100.0%										
INDIVIDUAL INVESTMENT ACCOUNTS												
Legacy Fund	5,577,319,113		7.57%	12.03%	1.06%	3.31%	6.64%	6.79%	6.06%	*	*	*
Retiree Health Insurance Credit Fund	126,605,205		7.15%	11.81%	0.72%	3.06%	16.53%	6.46%	7.70%	7.04%	5.50%	*
Job Service of North Dakota Pension Fund	95,690,470		3.15%	5.63%	5.45%	3.30%	13.54%	4.74%	6.15%	5.52%	5.66%	*
Tobacco Prevention and Control Trust Fund	54,365,162		1.63%	1.66%	*	*	*	*	*	*	*	*
TOTAL	\$13,745,329,055											

BENCHMARKS

S&P 500	14.37%	17.90%	3.99%	7.42%	24.61%	11.93%	13.42%	10.17%	6.46%	10.35%
Barclays Aggregate	-0.40%	-0.31%	6.00%	1.86%	4.37%	1.72%	2.27%	3.72%	4.70%	6.13%
90 Day T-Bills	1.36%	0.49%	0.19%	0.02%	0.05%	0.68%	0.42%	0.35%	1.98%	3.18%
Callan Public Plan Sponsors Database (Median-Net of Fees)	7.37%	11.81%	0.53%	2.80%	15.55%	6.29%	7.23%	6.22%	5.76%	7.78%

* These funds do not have the specified years of history under SIB management.

Note: Asset allocation largely drives investment performance. Each fund has a unique allocation that takes into consideration return objectives, risk tolerance, liquidity constraints, and unique circumstances. Such considerations must be taken into account when comparing results.

**SCHEDULE OF INVESTMENT CONSULTANTS AND RESULTS
FOR PERIODS ENDED JUNE 30, 2018
PENSION INVESTMENT POOL**

		Date	Fair Value	Annualized Rates of Return		
				Net of Fees		
				1 Year	3 Years	5 Years
Style	Initiated					
GLOBAL EQUITY:						
Epoch Investment Partners, Inc.	Core	01/2012	\$ 414,436,403	14.02%	7.62%	9.56%
LSV Asset Management	Core Value	03/2013	502,785,780	7.78%	6.98%	9.51%
TOTAL GLOBAL EQUITY			917,222,183	10.52%	7.31%	9.50%
MSCI World Index				11.09%	8.48%	9.94%
DOMESTIC LARGE CAP EQUITY:						
Parametric Clifton	Enhanced S&P 500	06/2011	195,157,156	13.24%	11.72%	13.30%
Los Angeles Capital Management	Structured Growth	08/2003	394,892,654	19.87%	13.32%	15.50%
Los Angeles Capital Management	Enhanced Russell 1000	08/2000	206,543,164	12.49%	11.21%	13.07%
Northern Trust Asset Management	Enhanced S&P 500	08/2000	195,978,202	14.66%	10.78%	12.63%
TOTAL DOMESTIC LARGE CAP EQUITY			992,571,176	15.97%	12.10%	14.00%
Russell 1000 Index				14.54%	11.64%	13.37%
DOMESTIC SMALL CAP EQUITY:						
Atlanta Capital	High Quality	04/2016	162,348,262	18.02%	*	*
Parametric Clifton	Enhanced Russell 2000	11/2009	158,543,165	17.03%	11.10%	12.80%
TOTAL DOMESTIC SMALL CAP EQUITY			320,891,427	17.69%	9.53%	11.53%
Russell 2000 Index				17.57%	10.96%	12.46%
DEVELOPED INTERNATIONAL EQUITY:						
William Blair Investment Management	Growth-oriented	06/2016	181,519,465	15.43%	*	*
Dimensional Fund Advisors	Small Cap Value	11/2007	87,432,016	5.40%	7.19%	10.09%
Northern Trust Asset Management	Core	12/2013	323,474,430	7.45%	5.24%	*
Wellington Trust Company, NA	Small Cap Growth	03/2002	87,119,857	15.57%	11.79%	12.29%
TOTAL DEVELOPED INTERNATIONAL EQUITY			679,545,768	10.31%	7.12%	8.40%
Benchmark ⁽¹⁾				7.04%	4.74%	6.34%
EMERGING MARKETS EQUITY:						
Axiom International Investors	Core	07/2014	153,738,158	10.83%	6.72%	*
Dimensional Fund Advisors	Small Cap	10/2005	56,889,864	5.47%	5.96%	6.26%
TOTAL EMERGING MARKETS EQUITY			210,628,022	9.46%	6.48%	6.09%
MSCI Emerging Markets Index				8.20%	5.60%	5.01%
PRIVATE EQUITY:						
Adams St. Partners (1998 Fund)	Diversified Private Equity	01/1998	126,169	0.45%	1.46%	1.12%
Adams St. Partners (1999 Fund)	Diversified Private Equity	01/1999	126,759	0.12%	3.81%	1.53%
Adams St. Partners (2000 Fund)	Diversified Private Equity	10/1999	597,183	7.82%	2.95%	1.05%
Adams St. Partners (2001 Fund)	Diversified Private Equity	12/2000	847,692	6.04%	0.85%	4.09%
Adams St. Partners (2002 Fund)	Diversified Private Equity	03/2002	150,527	-0.30%	9.26%	4.60%
Adams St. Partners (2003 Fund)	Diversified Private Equity	04/2003	191,370	14.74%	7.61%	13.20%
Adams St. Partners (1999 Non-U.S. Fund)	Diversified Private Equity	01/1999	71,393	2.53%	5.72%	1.60%
Adams St. Partners (2000 Non-U.S. Fund)	Diversified Private Equity	01/2000	444,489	10.80%	4.97%	2.95%
Adams St. Partners (2001 Non-U.S. Fund)	Diversified Private Equity	02/2001	173,538	6.80%	8.00%	14.30%
Adams St. Partners (2002 Non-U.S. Fund)	Diversified Private Equity	05/2002	92,321	5.99%	9.13%	4.93%
Adams St. Partners (2003 Non-U.S. Fund)	Diversified Private Equity	04/2003	209,358	5.41%	16.34%	12.83%
Adams St. Partners (2004 Non-U.S. Fund)	Diversified Private Equity	04/2004	254,349	10.08%	3.38%	7.36%
Adams St. Partners (2008 Non-U.S. Fund)	Diversified Private Equity	01/2008	7,604,665	16.99%	14.81%	14.14%
Adams St. Partners (2010 Direct Fund)	Direct Private Equity	04/2010	957,315	18.57%	12.60%	15.26%
Adams St. Partners (2010 Non-U.S. Developed)	Diversified Private Equity	04/2010	3,223,967	18.95%	16.62%	11.94%

**SCHEDULE OF INVESTMENT CONSULTANTS AND RESULTS
FOR PERIODS ENDED JUNE 30, 2018
PENSION INVESTMENT POOL (CONTINUED)**

				Annualized Rates of Return		
				Net of Fees		
	Style	Date Initiated	Fair Value	1 Year	3 Years	5 Years
PRIVATE EQUITY (continued):						
Adams St. Partners (2010 Partnership Fund)	Diversified Private Equity	04/2010	6,631,201	17.71%	12.89%	14.78%
Adams St. Partners (2010 Emerging Mkts Fund)	Diversified Private Equity	01/2011	1,679,744	21.66%	13.97%	13.38%
Adams St. Partners (2015 Global Fund)	Diversified Private Equity	10/2015	14,476,815	17.58%	*	*
Adams St. Partners (2016 Global Fund)	Diversified Private Equity	12/2016	8,689,650	13.58%	*	*
Adams St. Partners (2017 Global Fund)	Diversified Private Equity	10/2017	7,664,244	*	*	*
Adams St. Partners (B.V.C.F. IV)	Diversified Private Equity	05/1999	3,396,515	-1.84%	1.37%	11.83%
Adams St. Partners (Direct Co-Investment)	Direct Private Equity	09/2006	1,104,239	-12.18%	-3.10%	5.58%
Blackrock Investment Management	Diversified Private Equity	01/2017	29,938,614	1.53%	*	*
Capital International (Fund V)	EM Private Equity	08/2007	1,107,351	-48.22%	-42.03%	-28.50%
Capital International (Fund VI)	EM Private Equity	12/2011	27,732,206	5.98%	5.47%	-2.84%
EIG (formerly Trust Company of the West)	Mezz Debt - Energy	07/2007	6,632,929	18.70%	-24.45%	-20.74%
Corsair Capital (Fund III)	Pvt Eq - Financial Svcs	02/2006	8,275,172	-34.35%	-1.99%	-2.96%
Corsair Capital (Fund IV)	Pvt Eq - Financial Svcs	05/2010	28,315,139	26.61%	14.98%	17.93%
Invest America (Lewis and Clark Fund)	Direct Venture Capital	02/2002	2,545,360	51.46%	-3.37%	-13.13%
Invest America (L&C Fund II)	Direct Venture Capital	06/2009	6,009,823	0.90%	4.44%	-1.95%
Matlin Patterson Global Opportunities Fund II	Distressed Debt	10/2004	1,221,685	5.59%	-6.94%	-3.76%
Matlin Patterson Global Opportunities Fund III	Distressed Debt	06/2007	15,442,024	8.51%	3.03%	2.20%
Quantum Energy Partners	Pvt Equity - Energy	01/2007	3,020,565	-50.52%	-13.61%	-7.37%
TOTAL PRIVATE EQUITY			191,436,734	5.25%	2.76%	1.33%
INVESTMENT GRADE FIXED INCOME:						
Manulife Asset Management	Securitized	04/2012	116,618,892	3.33%	3.63%	4.24%
PIMCO	Distressed Sr. Debt	10/2012	118,135,275	10.02%	10.37%	9.45%
PIMCO	Core Constrained	03/2012	308,894,658	1.48%	3.16%	2.36%
Prudential	Core	03/2018	315,960,961	*	*	*
State Street Global Advisors	Passive BC Long Treasury	06/2013	117,998,549	-0.15%	3.35%	4.50%
TOTAL INVESTMENT GRADE FIXED INCOME			977,608,335	1.61%	3.41%	3.86%
Bloomberg Aggregate Index				-0.40%	1.72%	2.27%
BELOW INVESTMENT GRADE FIXED INCOME:						
Ares	Private Credit	07/2017	72,957,381	*	*	*
Cerberus	Private Credit	11/2017	69,906,646	*	*	*
Goldman Sachs	Mezzanine Debt-2006	04/2006	126,476	13.17%	23.04%	24.06%
Goldman Sachs	Mezzanine Debt-Fund V	11/2007	413,310	16.70%	-1.34%	3.87%
Loomis Sayles	High Yield Bonds	04/2004	204,757,178	2.66%	4.78%	5.51%
PIMCO	Res. & Comm. Debt	10/2013	43,326,489	6.00%	8.75%	*
TOTAL BELOW INVESTMENT GRADE FIXED INCOME			391,487,480	5.17%	5.99%	6.56%
Bloomberg High Yield Corp 2% Issuer Cap				2.62%	5.54%	5.52%
GLOBAL REAL ESTATE:						
INVESCO Realty Advisors	Core Commingled	08/1997	303,224,616	7.91%	8.88%	10.58%
INVESCO Realty Advisors	Core Plus LP (Fund II)	11/2007	185,886	-1.24%	8.93%	9.47%
INVESCO Realty Advisors	Core Plus LP (Fund III)	05/2012	19,073,619	0.30%	8.54%	12.42%
INVESCO Realty Advisors	Core Plus LP (Fund IV)	04/2015	45,189,475	11.65%	8.09%	*
INVESCO Realty Advisors	Asian LP	11/2008	242,164	-13.25%	174.96%	94.50%
INVESCO Realty Advisors	Asian LP (Fund III)	11/2015	2,957,570	83.23%	*	*

**SCHEDULE OF INVESTMENT CONSULTANTS AND RESULTS
FOR PERIODS ENDED JUNE 30, 2018
PENSION INVESTMENT POOL (CONTINUED)**

				Annualized Rates of Return		
				Net of Fees		
	Style	Date Initiated	Fair Value	1 Year	3 Years	5 Years
GLOBAL REAL ESTATE (continued):						
J. P. Morgan Investment Mgmt. Inc.	Core Commingled	10/1987	208,194,937	7.81%	8.60%	10.67%
J. P. Morgan Investment Mgmt. Inc.	Alternative Commingled	01/2006	316,577	8.18%	5.88%	-3.77%
J. P. Morgan Investment Mgmt. Inc.	European LP	09/2009	5,317,997	-46.30%	-12.72%	5.79%
J. P. Morgan Investment Mgmt. Inc.	Asian LP	01/2008	725,274	134.93%	55.55%	48.90%
TOTAL GLOBAL REAL ESTATE			585,428,115	7.70%	9.35%	11.84%
NCREIF Total Index				7.19%	8.25%	9.77%
TIMBER:						
Timberland Investment Resources - Teredo	Timberland	06/2001	30,194,823	-3.98%	-0.82%	3.75%
Timberland Investment Resources - Springbank	Timberland	09/2004	98,809,449	-2.07%	-3.23%	-2.30%
TOTAL TIMBER			129,004,272	-2.52%	-2.70%	-0.36%
NCREIF Timber Index				3.57%	3.43%	6.00%
INFRASTRUCTURE:						
Grosvenor CIS Fund I	Infrastructure	12/2011	35,004,954	7.10%	8.07%	8.47%
Grosvenor CIS Fund II	Infrastructure	03/2015	15,946,534	7.98%	5.77%	*
The Rohatyn Group ⁽²⁾	Asian Infrastructure	07/2008	21,179,795	-8.86%	3.71%	2.42%
I Squared	Infrastructure	06/2018	3,500,000	*	*	*
J.P. Morgan Investment Management, Inc.	Infrastructure	05/2007	193,288,694	9.89%	6.69%	5.78%
TOTAL INFRASTRUCTURE			268,919,977	7.37%	6.45%	5.75%
CPI-W				3.09%	1.74%	1.37%
CASH EQUIVALENTS:						
Bank of North Dakota	Money Market	09/2016	10,196,891	1.42%	*	*
Northern Trust Asset Management	STIF	07/1994	44,807,543	1.45%	0.83%	0.52%
TOTAL CASH EQUIVALENTS			55,004,434	1.45%	0.82%	0.51%
90 Day T-Bills				1.36%	0.68%	0.42%
TOTAL PENSION INVESTMENT POOL			\$5,719,747,923	9.14%	7.33%	8.29%
Policy Target				7.85%	6.64%	7.44%

* This manager/category has less than the indicated years under management due to addition of asset class or replacement of investment managers during this time period.

(1) MSCI EAFE through 6/30/16 and MSCI World ex-US thereafter.

(2) Management of this fund was transferred from JP Morgan to The Rohatyn Group in May, 2018.

The investment return calculations were prepared using a monthly time-weighted rate of return methodology based upon market values and are subject to independent calculation.

Returns are shown after the effect of investment management fees (net of fees).

Columns may not foot due to rounding.

**SCHEDULE OF INVESTMENT CONSULTANTS AND RESULTS
FOR PERIODS ENDED JUNE 30, 2018
INSURANCE INVESTMENT POOL**

		Date		Annualized Rates of Return		
	Style	Initiated	Fair Value	Net of Fees		
				1 Year	3 Years	5 Years
DOMESTIC LARGE CAP EQUITY:						
Parametric Clifton	Enhanced S&P 500	11/2008	\$ 46,814,212	13.70%	12.09%	13.45%
Los Angeles Capital Management	Structured Growth	08/2003	70,994,336	19.01%	12.95%	15.24%
Los Angeles Capital Management	Enhanced Russell 1000	04/2004	46,865,399	12.42%	11.18%	13.07%
LSV Asset Management	Structured Value	06/1998	68,288,229	9.37%	8.69%	11.92%
TOTAL DOMESTIC LARGE CAP EQUITY			232,962,176	13.85%	11.21%	13.50%
Russell 1000 Index				14.54%	11.64%	13.37%
DOMESTIC SMALL CAP EQUITY:						
Parametric Clifton	Enhanced Russell 2000	11/2008	33,784,170	17.13%	11.12%	12.98%
PIMCO (RAE)	Core	07/2007	34,176,401	16.84%	10.75%	12.17%
TOTAL DOMESTIC SMALL CAP EQUITY			67,960,571	17.09%	10.85%	12.67%
Russell 2000 Index				17.57%	10.96%	12.46%
INTERNATIONAL EQUITY:						
William Blair Investment Management	Growth-oriented	06/2016	67,383,462	15.39%	*	*
Dimensional Fund Advisors	Small Cap Value	11/2007	15,474,969	5.40%	7.19%	10.09%
LSV Asset Management	Core	11/2004	62,854,098	5.34%	5.68%	7.57%
The Vanguard Group	Small Cap Growth	06/2003	16,013,817	11.47%	9.38%	11.25%
TOTAL INTERNATIONAL EQUITY			161,726,346	9.96%	6.84%	8.31%
Benchmark ⁽¹⁾				7.04%	4.74%	6.34%
DOMESTIC FIXED INCOME:						
Manulife Asset Management	Securitized	12/2013	86,548,679	3.34%	3.64%	*
PIMCO	Distressed Sr. Debt	10/2012	54,259,377	10.02%	10.37%	9.46%
PIMCO	Res. & Comm. Debt	10/2013	22,135,397	6.00%	8.75%	*
Prudential	Core-Plus	08/2006	181,117,534	0.51%	3.25%	3.64%
State Street Global Advisors	Passive BC Gov't/Credit	06/2013	155,308,838	-0.62%	1.81%	2.26%
Wells Capital	Baa Average Bonds	04/2002	271,936,477	-0.11%	4.00%	4.47%
Western Asset Management Co.	Core Bonds	07/1990	336,777,311	0.48%	3.21%	3.64%
TOTAL DOMESTIC FIXED INCOME			1,108,083,613	1.44%	4.13%	4.44%
Bloomberg Aggregate Index				-0.40%	1.72%	2.27%
DIVERSIFIED REAL ASSETS:						
Grosvenor CIS Fund I	Infrastructure	12/2011	17,502,466	7.10%	8.07%	8.47%
J. P. Morgan Investment Mgmt. Inc.	Infrastructure	11/2008	92,111,246	9.90%	6.71%	5.54%
Timberland Investment Resources	Timberland	10/2008	55,509,588	13.95%	5.84%	6.35%
Western Asset Management Co.	Global TIPS	05/2004	116,829,324	2.46%	1.95%	2.46%
TOTAL INFLATION PROTECTED ASSETS			281,952,624	7.25%	4.56%	4.49%
Weighted Benchmark ⁽²⁾				3.27%	2.32%	3.13%
REAL ESTATE:						
INVESCO Realty Advisors	Core Commingled	10/2012	68,647,129	7.91%	8.88%	10.56%
J. P. Morgan Investment Mgmt. Inc.	Core Commingled	11/2005	74,286,421	6.75%	7.92%	9.55%
TOTAL REAL ESTATE			142,933,550	7.31%	8.37%	9.97%
NCREIF Total Index				7.19%	8.25%	9.77%

**SCHEDULE OF INVESTMENT CONSULTANTS AND RESULTS
FOR PERIODS ENDED JUNE 30, 2018
INSURANCE INVESTMENT POOL (CONTINUED)**

	Style	Date Initiated	Fair Value	Annualized Rates of Return Net of Fees		
				1 Year	3 Years	5 Years
CASH EQUIVALENTS:						
Bank of North Dakota	Money Market	09/2016	9,401,777	1.42%	*	*
Northern Trust Asset Management	STIF	07/2013	<u>27,602,294</u>	1.09%	0.51%	0.31%
TOTAL CASH EQUIVALENTS			37,004,071	1.20%	0.59%	0.36%
90 Day T-Bills				1.36%	0.68%	0.42%
SHORT-TERM FIXED INCOME						
J.P. Morgan Investment Mgmt. Inc.	Short Term Bonds	09/2011	<u>138,978,231</u>	0.30%	0.67%	0.87%
TOTAL SHORT-TERM FIXED INCOME			138,978,231	0.30%	0.86%	1.22%
Benchmark ⁽³⁾				0.21%	0.52%	0.65%
TOTAL INSURANCE INVESTMENT POOL			<u><u>\$ 2,171,601,182</u></u>	5.21%	5.36%	5.34%
Policy Target				3.51%	3.67%	4.02%

LEGACY FUND

		Date		Annualized Rates of Return		
	Style	Initiated	Fair Value	Net of Fees		
				1 Year	3 Years	5 Years
DOMESTIC LARGE CAP EQUITY:						
Parametric Clifton	Enhanced S&P 500	08/2013	\$ 248,264,932	13.83%	11.84%	*
Los Angeles Capital Management	Structured Growth	08/2013	381,219,277	19.14%	12.86%	*
Los Angeles Capital Management	Enhanced Russell 1000	08/2013	241,693,150	12.65%	10.98%	*
LSV Asset Management	Structured Value	08/2013	353,319,328	10.24%	9.11%	*
TOTAL DOMESTIC LARGE CAP EQUITY			1,224,496,687	14.14%	11.20%	*
Russell 1000 Index				14.54%	11.64%	
DOMESTIC SMALL CAP EQUITY:						
Parametric Clifton	Enhanced Russell 2000	08/2013	244,815,340	17.56%	11.27%	*
PIMCO (RAE)	Core	08/2013	215,744,028	16.73%	10.73%	*
TOTAL DOMESTIC SMALL CAP EQUITY			460,559,368	17.22%	11.02%	*
Russell 2000 Index				17.57%	10.96%	
INTERNATIONAL EQUITY:						
William Blair Investment Management	Core	08/2013	450,309,430	15.35%	*	*
Dimensional Fund Advisors	Small Cap Value	08/2013	103,698,375	5.40%	7.19%	*
LSV Asset Management	Core	08/2013	423,873,637	4.95%	5.57%	*
The Vanguard Group	Small Cap Growth	08/2013	108,393,661	11.47%	9.38%	*
TOTAL INTERNATIONAL EQUITY			1,086,275,103	9.79%	6.69%	*
Benchmark ⁽¹⁾				7.04%	4.74%	
DOMESTIC FIXED INCOME:						
Ares	Private Credit	07/2017	48,638,254	*	*	*
Bank of North Dakota Match Loan CDs	Certificates of Deposit	various	58,636,284	2.86%	*	*
Cerberus	Private Credit	11/2017	46,604,431	*	*	*
Manulife Asset Management	Securitized	12/2013	145,517,209	3.34%	3.64%	*
PIMCO	Distressed Sr. Debt	12/2013	51,944,655	10.02%	10.37%	*
PIMCO	Res. & Comm. Debt	12/2013	21,191,093	6.00%	8.75%	*

**SCHEDULE OF INVESTMENT CONSULTANTS AND RESULTS
FOR PERIODS ENDED JUNE 30, 2018
LEGACY FUND (CONTINUED)**

		Date		Annualized Rates of Return		
	Style	Initiated	Fair Value	Net of Fees		
				1 Year	3 Years	5 Years
DOMESTIC FIXED INCOME (continued):						
Prudential	Core-Plus	12/2013	237,403,408	0.78%	3.58%	*
State Street Global Advisors	Passive BC Gov't/Credit	12/2013	270,628,242	-0.62%	1.81%	*
Wells Capital	Baa Average Bonds	12/2013	527,930,462	-0.26%	3.88%	*
Western Asset Management Co.	Core Bonds	12/2013	532,794,979	0.36%	3.06%	*
TOTAL DOMESTIC FIXED INCOME			1,941,289,017	1.12%	3.67%	*
Bloomberg Aggregate Index				-0.40%	1.72%	
DIVERSIFIED REAL ASSETS:						
Grosvenor CIS Fund II	Infrastructure	03/2015	39,866,601	7.98%	5.77%	*
I Squared	Infrastructure	06/2018	4,000,000	*	*	*
J. P. Morgan Investment Mgmt. Inc.	Infrastructure	03/2015	122,208,511	9.89%	6.68%	*
Western Asset Management Co.	Global TIPS	02/2014	360,484,140	2.46%	1.95%	*
TOTAL DIVERSIFIED REAL ASSETS			526,559,252	4.41%	3.21%	*
Weighted Benchmark ⁽²⁾				3.31%	2.11%	
REAL ESTATE:						
INVESCO Realty Advisors	Core Commingled	08/2013	137,080,616	7.91%	8.88%	*
J. P. Morgan Investment Mgmt. Inc.	Core Commingled	08/2013	146,218,863	6.75%	7.93%	*
TOTAL REAL ESTATE			283,299,479	7.31%	8.39%	*
NCREIF Total Index				7.19%	8.25%	
CASH EQUIVALENTS:						
Bank of North Dakota	Money Market	09/2016	13,933,478	1.42%	*	*
Northern Trust Asset Management	STIF	07/2013	40,906,729	1.09%	0.51%	0.31%
TOTAL CASH EQUIVALENTS			54,840,207	1.21%	0.59%	0.36%
90 Day T-Bills				1.36%	0.68%	0.42%
TOTAL LEGACY FUND			\$5,577,319,113	7.57%	6.79%	6.06%
Policy Target				6.51%	5.75%	5.09%

* This manager/category has less than the indicated years under management due to addition of asset class or replacement of investment managers during this time period.

(1) MSCI EAFE through 6/30/16 and MSCI World ex-US thereafter.

(2) Weighted benchmark is based on pro-rata share of Barclays Global Inflation-linked, CPI and NCREIF Timberland indices.

(3) Bloomberg Government 1-3 Year through 3/31/17 and Bloomberg Government/Credit 1-3 Year thereafter.

The investment return calculations were prepared using a monthly time-weighted rate of return methodology based upon market values and are subject to independent audit.

Returns are shown after the effect of investment management fees (net of fees).

Columns may not foot due to rounding.

**SCHEDULE OF INVESTMENT CONSULTANTS AND RESULTS
FOR PERIODS ENDED JUNE 30, 2018
OTHER INDIVIDUAL INVESTMENT ACCOUNTS**

				Annualized Rates of Return		
		Date		Net of Fees		
	Style	Initiated	Fair Value	1 Year	3 Years	5 Years
NDPERS RETIREE HEALTH INSURANCE CREDIT FUND						
SEI	Balanced Account	07/2009	\$ 126,605,205	7.15%	6.46%	7.70%
Policy Target				7.18%	6.63%	7.87%
JOB SERVICE ND PENSION FUND						
SEI	Balanced Account	12/2015	<u>95,690,470</u>	3.15%	*	*
TOTAL JOB SERVICE ND PENSION FUND			\$ 95,690,470	3.15%	4.74%	6.15%
Policy Target				4.17%	4.72%	5.69%
TOBACCO PREVENTION AND CONTROL TRUST FUND						
State Street Global Advisors	S&P 500 ex Tobacco	10/2015	\$ 5,462,162	14.91%	*	*
State Street Global Advisors	Short Term Bonds	10/2015	40,386,152	-0.03%	*	*
Bank of North Dakota	Money Market	09/2016	2,163,911	1.42%	*	*
Northern Trust Asset Management	STIF	10/2015	<u>6,352,937</u>	1.09%	*	*
TOTAL TOBACCO PREVENTION AND CONTROL TRUST FUND			\$ 54,365,162	1.63%	*	*
Policy Target				1.68%		

* This manager/category has less than the indicated years under management due to addition of asset class or replacement of investment managers during this time period.

**LARGEST HOLDINGS (By Fair Value)
AT JUNE 30, 2018**

PENSION INVESTMENT POOL

Shares	Stocks	Fair Value
517,788	Microsoft Corporation	\$ 51,059,075
193,870	Apple Incorporated	35,887,276
16,197	Amazon Company Incorporated	27,531,661
102,977	UnitedHealth Group Incorporated	25,264,377
189,029	Visa Incorporated (Class A)	25,036,891
224,733	JP Morgan Chase & Company	23,417,179
18,391	Alphabet Incorporated (Class C)	20,517,919
102,114	Home Depot Incorporated	19,922,441
302,173	DowDupont Incorporated	19,919,244
102,031	Facebook Incorporated (Class A)	19,826,664
Par	Bonds	Fair Value
40,200,000	FNMA Single Family Mortgage 4% 30 Years Settles August	\$ 40,925,851
24,900,000	FNMA Single Family Mortgage 3.5% 30 Years Settles July	24,782,870
25,000,000	US Treasury 2.125% Due 09-30-2021	24,593,750
20,900,000	FNMA Single Family Mortgage 3% 30 Years Settles July	20,246,060
14,500,000	US Treasury Bonds 2.25% Due 08-15-2027	13,800,491
14,100,000	US Treasury Bonds 2.5% Due 05-15-2046	12,812,275
11,680,000	US Treasury Notes 2% Due 01-31-2020	11,591,944
11,000,000	FNMA Single Family Mortgage 3.5% 30 Years Settles August	10,934,506
9,845,000	US Treasury Bonds 3.0% Due 02-15-2048	9,878,069
10,000,000	FNMA Single Family Mortgage 3% 30 Years Settles August	9,677,730

INSURANCE INVESTMENT POOL

Shares	Stocks	Fair Value
158,410	Apple Incorporated	\$ 29,323,275
263,675	Microsoft Corporation	26,000,992
13,652	Amazon Company Incorporated	23,205,670
93,258	Facebook Incorporated (Class A)	18,121,895
254,772	Total	15,530,338
142,818	Macquarie Group LTD	13,047,682
1,438,800	AIA Group LTD	12,580,754
37,077	LVMH Moet Hennessy Louis Vuitton SE	12,346,095
10,916	Alphabet Incorporated (Class C)	12,178,435
10,752	Alphabet Incorporated (Class A)	12,141,051
Par	Bonds	Fair Value
26,125,000	US Treasury Bonds 3.75% Due 11-15-2043	\$ 29,699,841
29,410,000	US Treasury Notes 1.625% Due 07-31-2020	28,856,269
21,225,000	US Treasury Notes 2.75% Due 05-31-2023	21,251,531
13,090,000	US Treasury Bonds 3% Due 05-15-2047	13,128,354
12,820,000	US Treasury Notes 2.875% Due 05-15-2028	12,845,537
12,210,000	US Treasury Notes 1.5% Due 11-30-2019	12,045,446
10,260,000	US Treasury Bonds 3.0% Due 02-15-2048	10,294,463
7,000,000	US Treasury Notes 1.625% Due 04-30-2019	6,959,806
6,310,000	US Treasury Bonds 2.5% Due 02-15-2045	5,753,193
5,550,000	US Treasury Notes 1.375% Due 09-30-2020	5,405,828

**LARGEST HOLDINGS (By Fair Value)
AT JUNE 30, 2018**

LEGACY FUND

Shares	Stocks	Fair Value
29,017	Apple Incorporated	\$ 5,371,337
52,410	Microsoft Corporation	5,168,150
2,696	Amazon Company Incorporated	4,582,661
16,047	Facebook Incorporated (Class A)	3,118,253
21,034	JP Morgan Chase & Company	2,191,743
34,800	Total	2,121,331
1,772	Alphabet Incorporated (Class C)	1,976,932
1,748	Alphabet Incorporated (Class A)	1,973,824
9,617	Mastercard Incorporated (Class A)	1,889,933
215,800	AIA Group LTD	1,886,938
Par	Bonds	Fair Value
39,000,000	US Treasury Notes 1.875% Due 06-30-2024	\$ 37,298,313
23,980,000	US Treasury Bonds 3.75% Due 11-15-2043	27,261,327
13,500,000	US Treasury Bonds 3% Due 05-15-2047	13,539,555
13,430,000	US Treasury Notes 2.875% Due 05-15-2028	13,456,753
12,000,000	US Treasury 1.625% Due 04-30-2019	11,931,096
9,115,000	US Treasury Notes 2.125% Due 08-15-2021	8,974,000
7,840,000	US Treasury Bonds 3.0% Due 02-15-2048	7,866,335
8,000,000	FNMA Single Family Mortgage 3% 30 Years Settles July	7,749,688
6,890,000	US Treasury Bonds 3% Due 02-15-2047	6,914,763
6,900,000	Federal Home Loan Mortgage Corporation Step Up 06-28-2023	6,892,755

The individual investment accounts for PERS Retiree Health Credit Fund, Job Service Pension Fund and Tobacco Prevention and Control Fund are invested in various commingled/mutual funds, and therefore have no individual stock or bond holdings.

A complete list of all holdings is available upon request.

**SCHEDULE OF INVESTMENT FEES
FOR THE FISCAL YEAR ENDED JUNE 30, 2018
INVESTMENT POOLS**

	Pension Investment Pool			Insurance Investment Pool		
	Assets under management (Average)	Fees	Basis points	Assets under management (Average)	Fees	Basis points
Investment manager fees:						
Global equity managers	\$ 940,287,735	\$ 3,175,295	34			
Domestic large cap equity managers*	971,947,359	(833,352)	(9)	\$ 246,179,641	\$ 203,835	8
Domestic small cap equity managers*	303,159,565	1,377,369	45	81,103,429	43,805	5
Developed international equity managers	679,563,659	2,118,909	31	179,091,154	757,067	42
Emerging markets equity managers	221,966,308	1,822,284	82			
Private equity managers	179,734,247	3,287,683	183			
Investment grade fixed income managers	844,708,411	3,695,623	44	1,074,180,575	3,426,156	32
Diversified real asset managers				277,437,944	1,331,226	48
Below investment grade fixed income managers	350,243,685	4,629,486	132			
Developed international fixed income managers	190,110,709	582,352	31			
Real estate managers	570,892,733	6,370,310	112	139,843,918	766,036	55
Timber managers	132,648,589	876,751	66			
Infrastructure managers	259,415,753	2,998,330	116			
Cash & equivalents managers	56,473,208	61,492	11	41,916,089	70,432	17
Short term fixed income managers				87,694,375	111,865	13
Total investment manager fees	<u>\$ 5,701,151,961</u>	<u>30,162,532</u>	<u>53</u>	<u>\$ 2,127,447,125</u>	<u>6,710,422</u>	<u>32</u>
Custodian fees		532,135	1		175,436	1
Investment consultant fees		300,591	1		120,342	1
SIB Service Fees		29,495	0		14,349	0
Total investment expenses *		<u>\$ 31,024,753</u>	<u>54</u>		<u>\$ 7,020,549</u>	<u>33</u>

Reconciliation of Investment Expenses to Financial Statements

Investment expenses as reflected in the financial statements	\$ 12,319,470	\$ 3,957,802
Plus investment management fees included in investment income (booked as net income)		
Domestic large cap equity managers	215,040	44,060
Developed international equity managers	606,923	189,056
Emerging markets equity managers	1,822,285	
Investment grade domestic fixed income managers	2,868,774	2,180,541
Diversified real assets managers	-	578,658
Below investment grade domestic fixed income managers	3,675,490	
Timber managers	876,751	
Infrastructure managers	1,732,919	
Real estate managers	3,624,708	-
Private equity managers	3,282,393	
Cash & equivalents managers	-	70,432
Investment expenses per schedule	<u>\$ 31,024,753</u>	<u>\$ 7,020,549</u>

Individual investment funds' total basis points vary depending upon their asset allocation.

Columns may not foot due to rounding.

**SCHEDULE OF INVESTMENT FEES
FOR THE FISCAL YEAR ENDED JUNE 30, 2018
INDIVIDUAL INVESTMENT ACCOUNTS**

	Legacy Fund			PERS Retiree Health Credit Fund Job Service of ND Pension Fund			Tobacco Prevention and Control Fund		
	Assets under management (Average)	Fees	Basis points	Assets under management (Average)	Fees	Basis points	Assets under management (Average)	Fees	Basis points
Investment manager fees:									
Domestic large cap equity managers*	\$ 1,157,153,749	\$ 817,082	7				\$ 5,779,222	\$ 2,007	3
Domestic small cap equity managers	424,498,126	709,704	17						
Developed international equity managers	1,051,633,065	4,308,926	41						
Investment grade fixed income managers	1,829,238,525	5,809,170	32						
Diversified real asset managers	513,215,642	2,704,986	53						
Real estate managers	273,421,343	1,490,324	55						
Cash & equivalents managers	42,188,081	69,690	17						
Short term fixed income managers							41,747,348	11,100	3
Balanced account manager - PERS Retiree Health				\$ 124,417,651	\$ 530,083	43			
Balanced account manager - Job Service Pension				96,815,612	435,071	45			
Total investment manager fees	<u>\$ 5,291,348,530</u>	15,909,882	30	<u>\$ 221,233,263</u>	965,154	44	<u>\$ 47,526,570</u>	\$ 13,107	3
Custodian fees		430,805	1		18,816	1		4,540	1
Investment consultant fees		294,600	1		-	0		1,292	0
SIB Service Fees					31,171	1		7,749	2
Total investment expenses		<u>\$ 16,635,287</u>	31		<u>\$ 1,015,141</u>	46		<u>\$ 26,688</u>	6

Reconciliation of Investment Expenses to Financial Statements

Investment expenses as reflected in the financial statements	\$ 10,018,870	\$ 683,253	\$ 26,688
--	---------------	------------	-----------

Plus investment management fees included in investment income (booked as net income)

Domestic large cap equity managers	200,059		
Developed international equity managers	1,081,275		
Investment grade domestic fixed income managers	3,806,301		
Diversified real assets managers	1,459,092		
Cash & equivalents managers	69,690		
Balanced account managers		331,888	
Investment expenses per schedule	<u>\$ 16,635,287</u>	<u>\$ 1,015,141</u>	<u>\$ 26,688</u>

Columns may not foot due to rounding.

* A manager within the domestic large cap equity managers in the pension, insurance and Legacy Fund pools as well as within the small cap domestic equity managers in the insurance pool underperformed its benchmark, resulting in an accrual of a performance fee credit that will be applied against future fees due.

**SCHEDULE OF COMMISSIONS
FOR THE FISCAL YEAR ENDED JUNE 30, 2018**

Brokers	Number of shares traded	Total commissions	Commissions per share
Credit Suisse	19,142,780	\$ 49,980	\$0.003
Investec	14,303,447	105,901	0.007
Liquidnet	13,615,159	140,059	0.010
Jefferies LLC	10,592,800	105,072	0.010
Merrill Lynch	8,400,601	74,443	0.009
UBS	8,097,316	51,534	0.006
Citigroup	6,399,435	38,892	0.006
Barclays Capital	3,941,213	54,018	0.014
Morgan Stanley & Co. LLC	3,735,536	34,775	0.009
Sanford C. Bernstein & Co., LLC	3,380,803	37,415	0.011
Other 62 Brokers *	36,329,505	422,062	0.012
Total commissions	127,938,595	\$ 1,114,151	\$0.009

* A complete listing of investment brokers utilized is available upon request.

Note: This schedule includes only brokerage costs for agency trades of common and preferred stock.

TEACHERS' FUND FOR RETIREMENT

❖ Teachers' Fund for Retirement Investment Objectives and Policy Guidelines

Plan Characteristics and Fund Constraints

The North Dakota Teachers' Fund for Retirement (TFFR) is a pension benefit plan that was established in 1913 to provide retirement income to all public school and certain state teachers and administrators in the state of North Dakota. The plan is administered by a seven-member Board of Trustees comprised of five active and retired members of the fund appointed by the Governor of North Dakota and two elected officials - the State Treasurer and the State Superintendent of Public Instruction.

The plan is a multi-employer defined benefit public pension plan that provides retirement, disability, and death benefits in accordance with Chapter 15-39.1 of the North Dakota Century Code (NDCC). Monthly retirement benefits are based on the formula: Number of Years of service X 2.0% X Final Average Salary. Adjustments to the basic formula are made depending on the retirement option selected.

Funding is provided by monthly employee and employer contributions scheduled to increase as follows:

	7/1/2011	7/1/2012	7/1/2014
Employee	7.75%	9.75%	11.75%
Employer	8.75%	10.75%	12.75%

Employee and employer contributions will be reduced to 7.75% each when TFFR reaches 100% funded level on an actuarial value basis.

The TFFR Board has an actuarial valuation performed annually and an Experience Study and Asset Liability Study performed every five years. The actuarial assumed rate of return on assets was reduced to 7.75% from 8.0% as of July 1, 2015. Key plan and financial statistics are recorded in the most recent valuation report on file at the North Dakota Retirement and Investment Office (RIO).

Fund Goals

The Plan benefits are financed through both statutory employer and employee contributions and the investment earnings on assets held in the Fund. The TFFR Board recognizes that a sound investment program is essential to meet the pension obligations.

As a result, the Fund goals are to:

- 1) Improve the Plan's funding status to protect and sustain current and future benefits.

- 2) Minimize the employee and employer contributions needed to fund the Plan over the long term.
- 3) Avoid substantial volatility in required contribution rates and fluctuations in the Plan's funding status.
- 4) Accumulate a funding surplus to provide increases in retiree annuity payments to preserve the purchasing power of their retirement benefit.

The Board acknowledges the material impact that funding the pension plan has on the State/School District's financial performance. These goals affect the Fund's investment strategies and often represent conflicting goals. For example, minimizing the long-term funding costs implies a less conservative investment program, whereas dampening the volatility of contributions and avoiding large swings in the funding status implies a more conservative investment program. The Board places a greater emphasis on the strategy of improving the funding status and reducing the contributions that must be made to the Fund, as it is most consistent with the long-term goal of conserving money to apply to other important state/local projects.

Responsibilities and Discretion of the State Investment Board (SIB)

The TFFR Board is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and investing the assets of the Fund in the manner provided in NDCC 21-10-07, the prudent investor rule. Under this rule, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. The Fund must be invested exclusively for the benefit of the members and their beneficiaries in accordance with this investment policy.

Management responsibility for the investment program not assigned to the SIB in Chapter 21-10 of the North Dakota Century Code (NDCC) is hereby delegated to the SIB, who must establish written policies for the operation of the investment program, consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and the objectives of the funds participating in the pools.

The SIB is responsible for establishing criteria, procedures, and making decisions with respect to hiring, keeping, and terminating money managers. SIB investment responsibility also includes selecting performance measurement services, consultants, report formats, and frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

The Board is unwilling to undertake investment strategies that might jeopardize the ability of the Fund to finance the pension benefits promised to plan participants.

However, funding the pension promise in an economical manner is critical to the State/School Districts ability to continue to provide pension benefits to plan participants. Thus, the Board actively seeks to lower the cost of funding the Plan's pension obligations by taking on risk for which it expects to be compensated over the long term. The Board understands that a prudent investment approach to risk taking can result in periods of under-performance for the Fund in which the funding status may decline. These periods, in turn, can lead to higher required contribution rates. Nevertheless, the Board believes that such an approach, prudently implemented, best serves the long-run interests of the State/School District and, therefore, of plan participants.

Investment Objectives

The Board's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB

- 1) The fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
- 2) The fund's risk, measured by the standard deviation of net returns, should not exceed 115% of the policy benchmark over a minimum evaluation period of five years.
- 3) The risk-adjusted performance of the fund, net of fees and expenses, should at least match that of the

policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

Benefit payments are projected to occur over a long period of time. This allows TFFR to adopt a long-term investment horizon and asset allocation policy for the management of fund assets. Asset allocation policy is critical because it defines the basic risk and return characteristics of the investment portfolio. Asset allocation targets are established using an asset-liability analysis designed to assist the Board in determining an acceptable volatility target for the fund and an optimal asset allocation policy mix. This asset-liability analysis considers both sides of the plan balance sheet, utilizing both quantitative and qualitative inputs, in order to estimate the potential impact of various asset class mixes on key measures of total plan risk, including the resulting estimated impact of funded status and contribution rates. After consideration of all the inputs and a discussion of its own collective risk tolerance, the Board approves the appropriate policy asset mix for the Fund.

Asset Class	Policy Target %
Global Equity	58
Public Equity	52
Private Equity	6
Global Fixed Income	23
Investment Grade	16
Non-investment Grade	7
Global Real Assets	18
Global Real Estate	10
Other	8
Cash	1

An allocation to Global Alternatives of up to 10% is authorized but shall not increase the expected volatility of the portfolio as measured in Section 5; and if utilized, all other targets will be adjusted pro-rata. The Board does not endorse tactical asset allocation, therefore, it is anticipated the portfolio be managed as close to the policy target as is prudent and practicable while minimizing rebalancing costs. Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivatives use will be monitored to ensure that undue risks are not taken by the money managers

- c. No transaction shall be made which threatens the tax exempt status of the Fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as "The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- 1) The cost does not exceed the fair market value at the time of investment.
- 2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar task.
- 3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- 4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Board's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for broker relationships. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives. Emphasis will be placed on five year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

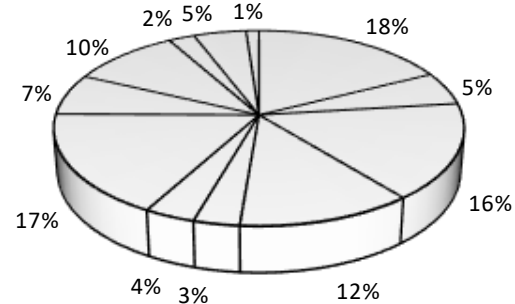
Performance reports will be provided to the TFFR Board periodically, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including but not limited to:

- 1) A list of the advisory services managing investments for the board.
- 2) A list of investments at market value, compared to previous reporting period, of each fund managed by each advisory service.
- 3) Earnings, percentage earned, and change in market value of each fund's investments.
- 4) Comparison of the performance of each fund managed by each advisory service to other funds under the board's control and to generally accepted market indicators.
- 5) All material legal or legislative proceedings affecting the SIB.
- 6) Compliance with this investment policy statement.

❖ **Teachers' Fund for Retirement**
Actual Asset Allocation – June 30, 2018

Asset Allocation	Fair Value	Percent of Total	One Year Return (net)
Domestic Large Cap Equity	\$ 437,393,845	18%	15.98%
Domestic Small Cap Equity	136,185,967	5%	17.69%
Global Equity	397,488,966	16%	10.53%
Developed International Equity	304,430,089	12%	10.30%
Emerging Markets Equity	79,967,194	3%	9.46%
Private Equity	88,154,616	4%	5.27%
Investment Grade Fixed Income	424,553,983	17%	1.60%
Below Investment Grade Fixed Income	169,515,177	7%	5.24%
Global Real Estate	244,344,607	10%	7.70%
Timber	58,231,736	2%	-2.52%
Infrastructure	116,890,013	5%	7.37%
Cash Equivalents	28,679,119	1%	1.47%
Total Fund	\$ 2,485,835,312		9.11%
Policy Benchmark			7.89%

Columns may not foot due to rounding.



PUBLIC EMPLOYEES RETIREMENT SYSTEM

❖ Public Employees Retirement System Investment Objectives and Policy Guidelines

Plan Characteristics and Fund Constraints

The North Dakota Public Employees Retirement System (NDPERS) and the Highway Patrol Retirement System (HPRS) are pension benefit plans established to provide retirement income to state employees and employees of participating political subdivisions. The plans are administered by a nine-member Board of Trustees (the Board). The Chair is appointed by the governor, three members are elected by the active members of the plans, one member is elected by the retired members, one is appointed by the Attorney General, one member is the State Health Officer or their designee and two are legislative appointees.

The NDPERS plan is a multi-employer hybrid benefit public pension plan that provides retirement benefits, disability retirement benefits, and survivor benefits, in accordance with Chapter 54-52 of the North Dakota Century Code (NDCC). Monthly retirement benefits for the Main, National Guard and Law Enforcement Plans are based on the formula: number of Years of Service times 2.0% times the final average salary. For the NDPERS Judges Plan the retirement formula is: for the first ten years of service of the formula is final average salary times 3.5%, for the second ten years of service the formula is final average salary times 2.80% and for all remaining years of service the formula is final average salary times 1.25%.

The Highway Patrol plan is a single employer plan that provides retirement benefits, disability benefits, and survivor benefits in accordance with Chapter 39-03.1 of the North Dakota Century Code. Monthly retirement benefits are based on the formula: first 25 years of credit service times 3.25% and all remaining years of service times 1.75%.

Funding for the NDPERS plan is provided by monthly employee contributions and employer contributions with the amount varying based upon which NDPERS plan the member participates in. For the Main NDPERS plan the employee contribution is 7% and the employer contribution is 7.12%, for the Judges Plan the employee contribution is 8% and employer contribution is 17.52%, for the National Guard Plan the employee contribution is 4.5% and employer contribution is 7%, for the Law Enforcement Plan with prior service the employee contribution is 5.5% and the employer contribution is 9.81% and for the Law Enforcement Plan without prior service the employee contribution rate is 5.5% and the employer rate is 7.93%.

Funding for the Highway Patrol plan is provided by a monthly employee contribution of 13.3% and an employer contribution of 19.7%.

Each year the Board has an actuarial valuation performed. The current actuarial assumed rate of return on assets for all plans is 7.75%.

Responsibilities and Discretion of the State Investment Board (SIB)

Aggregate plan contributions plus earnings, minus allowable expenses constitute the Fund. The Board is charged by NDCC chapters 54-52, 21-10-01, and 39-03.1 to establish policies for the investment goals and asset allocation of the Fund. The SIB is charged with implementing the asset allocation as promptly and prudently as possible in accordance with the Board's policies by investing the assets of the Fund in the manner provided in the prudent investor rule, which provides:

Fund fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. The retirement funds belonging to the teachers' fund for retirement and the public employees retirement system must be invested exclusively for the benefit of their members and in accordance with the respective funds' investment goals and objectives. (NDCC 21-10-07)

The SIB may delegate investment responsibility of the Fund or any portion of the Fund to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy is supervisory not advisory.

The SIB may at its discretion, pool the assets of the Fund with another fund or funds having similar investment objectives and time horizons in order to maximize returns and minimize costs. In pooling fund assets, the SIB will establish asset class pools it deems necessary to achieve the specific quality, diversification, restrictions, and performance objectives subject to the prudent investor rule and the objectives of the funds participating in the pools.

The SIB is responsible for establishing the selection criteria, determining the performance measures, and retaining all fund money managers. SIB is also responsible for the selection and retention of any investment consultants that may be employed in the investment of the Fund assets.

Delegation of Authority

Management responsibility for the investment program not assigned to the SIB in Chapter 21-10 of the North Dakota Century Code (NDCC) is hereby delegated to the SIB, who must establish written policies for the operation of the investment program, consistent with this investment policy.

Such procedures must provide for:

1. The definition and assignment of duties and responsibilities to advisory services and persons employed by the SIB pursuant to NDCC 21-10-02.1(1)(a).
2. Investment diversification, investment quality, qualification of advisory services, and amounts to be invested by advisory services pursuant to NDCC 21-10-02.1(1)(e). In developing these policies it is understood:
 - a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
 - b. The use of derivatives will be monitored to ensure that risks are not taken by the money managers.
 - c. All assets must be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
3. Guidelines for the selection and redemption of investments pursuant to NDCC 21-10-02.1(1)(d).
4. The criteria for making decisions with respect to hiring, retention, and termination of money managers will be clearly defined. This also includes selecting performance measurements, consultants, report formats, and frequency of meetings with money managers.

All participants in the investment process must seek to act responsibly as custodians of the public trust.

Investment Goals

The investment goals of the Fund have been established by the NDPERS Board based upon consideration of the Board's strategic objectives and a comprehensive review of the current and projected financial requirements. These goals are to be viewed over the long term.

Goal #1: Accumulate sufficient wealth through a diversified portfolio of investments which will enable the State of North Dakota to pay all current and future retirement benefits and expense obligations of the Fund.

Goal #2: To obtain an investment return in excess of that needed to allow for increases in a retiree's annuity to maintain the purchasing power of their retirement benefit.

The Board acknowledges the material impact that funding the pension plan has on the State's financial performance. To enable the State to continue offering secure pension benefits to plan participants, the Board believes that the Fund should pursue the following secondary goals:

1. Stabilize the employee and employer contributions needed to fund the Plan over the long term.
2. Avoid both substantial volatility in contributions and sizable fluctuations in the funding status of the Plan.

These two secondary goals affect the Fund's investment strategies and often represent conflicting goals. That is, minimizing the long-term funding costs implies a less conservative investment program, whereas dampening the volatility of contributions and avoiding large swings in the funding status implies a more conservative investment program. The Board places greater emphasis on the strategy of stabilizing the employee and employer contribution needed to fund the plan over the long term as it assists our participating employers by having a predictable contribution for budgeting.

Investment Performance Objective

The Board's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB.

1. The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
2. The Fund's risk, measured by the standard deviation of net returns, should not exceed 115% of the policy benchmark over a minimum evaluation period of five years.
3. The risk-adjusted performance of the Fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Asset Allocation

In recognition of the plan's performance objectives, benefit projections, and capital market expectations, the NDPERS Board has established the following asset allocation:

Asset Class	Policy Target %	Rebalancing Range %
Global Equity	58	46-66
Public Equity	51	42-57
Private Equity	7	4-9
Global Fixed Income	23	16-30
Investment Grade	16	13-23
Non-investment Grade	7	3-7
Global Real Assets	19	10-25
Global Real Estate	11	5-15
Other (Infrastructure/Timber)	8	5-10
Global Alternatives		0-10
Cash		0-2

The Board does not endorse tactical asset allocation, therefore, it is anticipated the portfolio be managed as close to the policy target as is prudent and practicable. Any allocation to Global Alternatives shall not increase the expected volatility of the portfolio as measured in Section #5, and all other targets will be adjusted pro-rata.

PERS requires that in implementing this asset allocation that the State Investment Board seek to maximize return within the scope of these policies while limiting investment costs.

Restrictions

- A. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- B. Use of derivatives will be monitored to ensure that undue risks are not taken by the money managers.
- C. No transaction may be made which threatens the tax exempt status of the Fund.
- D. No unhedged short sales or speculative margin purchases may be made.
- E. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- F. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

Economically targeted investing is defined as an investment designed to produce a competitive rate of

return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

The Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

- G. Publicly Traded REITs may not be used in the Real Estate asset allocation.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Board's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

The SIB must have a system of internal controls to prevent losses of public funds arising from fraud or employee error. The controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for broker relationships. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards.

An annual performance report must be provided to the Board by the State Investment Officer at a regularly scheduled NDPERS Board meeting. The annual performance report must include asset returns and allocation data as well as information regarding all significant or material matters and changes pertaining to the investment of the Fund, including:

- Changes in asset class portfolio structures, tactical approaches and market values;
- All pertinent legal or legislative proceedings affecting the SIB;

- Compliance with these investment goals, objectives and policies;
- A general market overview and market expectations;
- A review of fund progress and its asset allocation strategy;
- A report on investment fees and the SIB's effort relating to Section 6. To measure investment cost PERS requires as part of the annual review information

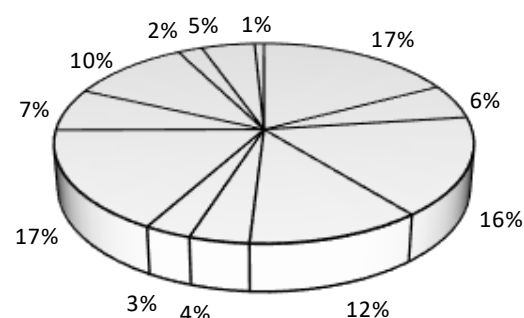
from CEM or other acceptable source showing the value added versus the cost.

- Changes/additions to benchmarks utilized to monitor the funds.

In addition, the State Investment Officer shall review with the Board the procedures and policies established by the SIB relating to this statement of investment goals, objectives and policies.

❖ **Public Employees Retirement Fund**
Actual Asset Allocation – June 30, 2018

Asset Allocation	Fair Value	Percent of Total	One Year Return (net)
Domestic Large Cap Equity	\$ 525,509,762	17%	15.98%
Domestic Small Cap Equity	169,941,427	6%	17.69%
Global Equity	486,630,040	16%	10.52%
Developed International Equity	358,939,766	12%	10.30%
Emerging Markets Equity	123,245,041	4%	9.46%
Private Equity	96,040,933	3%	5.27%
Investment Grade Fixed Income	504,904,839	17%	1.60%
Below Investment Grade Fixed Income	207,737,557	7%	5.25%
Global Real Estate	320,063,999	10%	7.70%
Timber	65,236,240	2%	-2.52%
Infrastructure	140,968,074	5%	7.37%
Cash Equivalents	25,005,314	1%	1.47%
Total Fund	<u>\$ 3,024,222,992</u>		9.19%
Policy Benchmark			7.85%



Columns may not foot due to rounding.

BISMARCK CITY EMPLOYEE PENSION PLAN

❖Bismarck City Employee Pension Plan Investment Objectives and Policy Guidelines

Plan Characteristics and Fund Constraints

The Bismarck, North Dakota City Employee Pension Plan (BCEPP) is the pension benefit plan (Fund) established for the city of Bismarck public employees. The Fund is administered by the Bismarck City Employee Pension Plan Board of Trustees. The Fund is a defined benefit pension plan maintained to provide retirement benefits, and/or death benefits as may be the case, to the participants in accordance with Chapter 9-07 of the city of Bismarck Code of Ordinance (1986 revised). The Fund is administered in accordance with IRS and Treasury Regulations. The Fund was established to provide benefits to members eligible to receive them in accordance with the provisions of the Fund.

Fund Goals

The plan benefits are financed through both employer and employee contributions and the investment earnings on assets held in the Fund. The BCEPP Board recognizes that a sound investment program is essential to meet the pension obligations.

As a result, the Fund goals are to:

- Improve the Plan's funding status to protect and sustain current and future benefits.
- Minimize the employee and employer contributions needed to fund the Plan over the long term.
- Avoid substantial volatility in required contribution rates and fluctuations in the Plan's funding status.
- Accumulate a funding surplus to provide increases in retiree annuity payments to preserve the purchasing power of their retirement benefit.

The BCEPP Board acknowledges the material impact that funding the pension plan has on the City's financial performance. These goals affect the Fund's investment strategies and often represent conflicting goals. For example, minimizing the long-term funding costs implies a less conservative investment program, whereas dampening the volatility of contributions and avoiding large swings in the funding status implies a more conservative investment program. The BCEPP Board places greater emphasis on the strategy of improving the funding status and reducing the contributions that must be made to the Fund, as it is most consistent with the long-term goal of conserving money to apply to other important projects.

Responsibilities and Discretion of the State Investment Board (SIB)

The BCEPP Board has entered into a contract with the SIB for investment services as allowed under NDCC 21-10-06. The BCEPP Board is responsible for establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and

investing the assets of the Fund in the manner provided in NDCC 21-10-07, the prudent investor rule. Under this rule, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. The Fund must be invested exclusively for the benefit of the members and their beneficiaries in accordance with this investment policy.

Management responsibility for the investment program not assigned to the SIB in Chapter 21-10 of the North Dakota Century Code (NDCC) is hereby delegated to the SIB, who must establish written policies for the operation of the investment program, consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory not advisory.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and the objectives of the funds participating in the pools.

The SIB is responsible for establishing criteria, procedures, and making decisions with respect to hiring, keeping, and terminating money managers. SIB investment responsibility also includes selecting performance measurement services, consultants, report formats, and frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

The BCEPP Board is unwilling to undertake investment strategies that might jeopardize the ability of the Fund to finance the pension benefits promised to plan participants.

However, funding the pension promise in an economical manner is critical to the City's ability to continue to provide pension benefits to plan participants. Thus, the BCEPP Board actively seeks to lower the cost of funding the plan's pension obligations by taking on risk for which it expects to be compensated over the long term. The BCEPP Board understands that a prudent investment approach to risk taking can result in periods of under-performance for the Fund in which the funding status may decline. These periods, in turn, can lead to higher required contribution rates. Nevertheless, the BCEPP Board

believes that such an approach, prudently implemented, best serves the long-run interests of the City and, therefore, of plan participants.

Investment Objectives

The BCEPP Board's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB.

1. The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
2. The fund's risk, measured by the standard deviation of net returns, should not exceed 115% of the policy benchmark over a minimum evaluation period of five years.
3. The risk-adjusted performance of the fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

Benefit payments are projected to occur over a long period of time. This allows the BCEPP Board to adopt a long-term investment horizon and asset allocation policy for the management of fund assets. Asset allocation policy is critical because it defines the basic risk and return characteristics of the investment portfolio. Asset allocation targets are established using an asset-liability analysis designed to assist the BCEPP Board in determining an acceptable volatility target for the fund and an optimal asset allocation mix. This asset-liability analysis considers both sides of the plan balance sheet, utilizing both quantitative and qualitative inputs, in order to estimate the potential impact of various asset class mixes on key measures of total plan risk, including the resulting estimated impact of funded status and contribution rates. After consideration of all the inputs and a discussion of its own collective risk tolerance, the BCEPP Board approves the appropriate policy mix for the Fund.

Asset Class	Policy Target %
Global Equity	46
Public Equity	42
Private Equity	4
Global Fixed Income	34
Investment Grade	27
Non-investment Grade	7
Global Real Assets	20
Global Real Estate	12
Other	8

An allocation to Global Alternatives of up to 10% is authorized but shall not increase the expected volatility of

the portfolio as measured in Section 5; and if utilized, all other targets will be adjusted pro-rata. The BCEPP Board does not endorse tactical asset allocation, therefore, it is anticipated the portfolio be managed as close to the policy target as is prudent and practicable while minimizing rebalancing costs. Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivatives use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction shall be made which threatens the tax exempt status of the Fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.

- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the BCEPP Board's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for broker relationships. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Emphasis will be placed on three and five year results. Evaluation should include an assessment of the continued feasibility of achieving the

investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

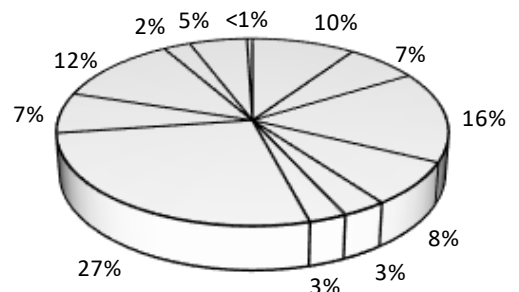
Performance reports will be provided to the BCEPP periodically, but not less than quarterly. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including, but not limited to:

- A list of advisory services managing investments for the SIB.
- A list of investments at market value, compared to previous reporting period, of each account managed by each advisory service.
- Earnings, percentage earned, and change in market value of each account's investments.
- Comparison of the performance of each account managed by each advisory service to other accounts under the SIB's control and to generally accepted market indicators.
- All material legal or legislative proceedings affecting the SIB.
- Compliance with this investment policy.

❖ **Bismarck City Employee Pension Plan** **Actual Asset Allocation – June 30, 2018**

Asset Allocation	Fair Value	Percent of Total	One Year Return (net)
Domestic Large Cap Equity	\$ 9,522,472	10%	15.96%
Domestic Small Cap Equity	6,687,712	7%	17.69%
Global Equity	15,657,128	16%	10.52%
Developed International Equity	7,628,166	8%	10.31%
Emerging Markets Equity	3,215,074	3%	9.46%
Private Equity	2,738,571	3%	5.26%
Investment Grade Fixed Income	26,774,405	27%	1.61%
Below Investment Grade Fixed Income	6,951,496	7%	3.53%
Global Real Estate	11,682,675	12%	7.70%
Timber	2,497,866	2%	-2.52%
Infrastructure	5,313,507	5%	7.37%
Cash Equivalents	508,434	<1%	1.44%
Total Fund	\$ 99,177,506		7.86%
Policy Benchmark			6.63%

Columns may not foot due to rounding.



BISMARCK CITY POLICE PENSION PLAN

❖ Bismarck City Police Pension Plan Investment Objectives and Policy Guidelines

Plan Characteristics and Fund Constraints

The Bismarck, North Dakota City Police Pension Plan (BCPPP) is the pension benefit plan (Fund) established for the city of Bismarck police. The Fund is administered by the Bismarck City Police Pension Plan Board of Trustees. The Fund is a defined benefit pension plan maintained to provide retirement benefits, and/or death benefits as may be the case, to the participants in accordance with Chapter 9-08 of the city of Bismarck Code of Ordinance (1986 revised). The Fund is administered in accordance with IRS and Treasury Regulations. The Fund was established to provide benefits to members eligible to receive them in accordance with the provisions of the Fund.

Fund Goals

The plan benefits are financed through both employer and employee contributions and the investment earnings on assets held in the Fund. The BCPBP Board recognizes that a sound investment program is essential to meet the pension obligations.

As a result, the Fund goals are to:

- Improve the Plan's funding status to protect and sustain current and future benefits.
- Minimize the employee and employer contributions needed to fund the Plan over the long term.
- Avoid substantial volatility in required contribution rates and fluctuations in the Plan's funding status.
- Accumulate a funding surplus to provide increases in retiree annuity payments to preserve the purchasing power of their retirement benefit.

The BCPBP Board acknowledges the material impact that funding the pension plan has on the City's financial performance. These goals affect the Fund's investment strategies and often represent conflicting goals. For example, minimizing the long-term funding costs implies a less conservative investment program, whereas dampening the volatility of contributions and avoiding large swings in the funding status implies a more conservative investment program. The BCPBP Board places greater emphasis on the strategy of improving the funding status and reducing the contributions that must be made to the Fund, as it is most consistent with the long-term goal of conserving money to apply to other important projects.

Responsibilities and Discretion of the State Investment Board (SIB)

The BCPBP Board has entered into a contract with the SIB for investment services as allowed under NDCC 21-10-06. The BCPBP Board is responsible for establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and

investing the assets of the Fund in the manner provided in NDCC 21-10-07, the prudent investor rule. Under this rule, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. The Fund must be invested exclusively for the benefit of the members and their beneficiaries in accordance with this investment policy.

Management responsibility for the investment program not assigned to the SIB in Chapter 21-10 of the North Dakota Century Code (NDCC) is hereby delegated to the SIB, who must establish written policies for the operation of the investment program, consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory not advisory.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and the objectives of the funds participating in the pools.

The SIB is responsible for establishing criteria, procedures, and making decisions with respect to hiring, keeping, and terminating money managers. SIB investment responsibility also includes selecting performance measurement services, consultants, report formats, and frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

The BCPBP Board is unwilling to undertake investment strategies that might jeopardize the ability of the Fund to finance the pension benefits promised to plan participants.

However, funding the pension promise in an economical manner is critical to the City's ability to continue to provide pension benefits to plan participants. Thus, the BCPBP Board actively seeks to lower the cost of funding the plan's pension obligations by taking on risk for which it expects to be compensated over the long term. The BCPBP Board understands that a prudent investment approach to risk taking can result in periods of under-performance for the Fund in which the funding status may decline. These periods, in turn, can lead to higher required contribution rates. Nevertheless, the BCPBP Board believes that such an

approach, prudently implemented, best serves the long-run interests of the City and, therefore, of plan participants.

Investment Objectives

The BCPPP Board's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB.

1. The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
2. The fund's risk, measured by the standard deviation of net returns, should not exceed 115% of the policy benchmark over a minimum evaluation period of five years.
3. The risk-adjusted performance of the fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

Benefit payments are projected to occur over a long period of time. This allows the BCPPP Board to adopt a long-term investment horizon and asset allocation policy for the management of fund assets. Asset allocation policy is critical because it defines the basic risk and return characteristics of the investment portfolio. Asset allocation targets are established using an asset-liability analysis designed to assist the BCPPP Board in determining an acceptable volatility target for the fund and an optimal asset allocation mix. This asset-liability analysis considers both sides of the plan balance sheet, utilizing both quantitative and qualitative inputs, in order to estimate the potential impact of various asset class mixes on key measures of total plan risk, including the resulting estimated impact of funded status and contribution rates. After consideration of all the inputs and a discussion of its own collective risk tolerance, the BCEPP Board approves the appropriate policy mix for the Fund.

Asset Class	Policy Target %
Global Equity	51
Public Equity	46
Private Equity	5
Global Fixed Income	29
Investment Grade	22
Non-investment Grade	7
Global Real Assets	20
Global Real Estate	12
Other	8

An allocation to Global Alternatives of up to 10% is authorized but shall not increase the expected volatility of the portfolio as measured in Section 5; and if utilized, all other targets will be adjusted pro-rata. The BCPPP Board does not

endorse tactical asset allocation, therefore, it is anticipated the portfolio be managed as close to the policy target as is prudent and practicable while minimizing rebalancing costs. Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivatives use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction shall be made which threatens the tax exempt status of the Fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the BCPPP Board's policy

favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for broker relationships. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Emphasis will be placed on three and five year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

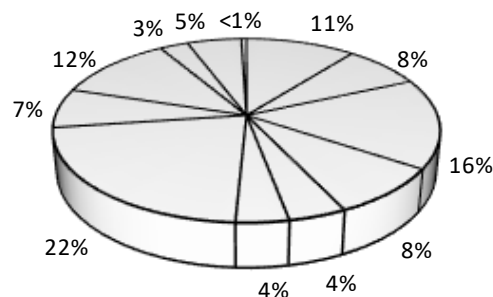
Performance reports will be provided to the BCEPP periodically, but not less than quarterly. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including, but not limited to:

- A list of advisory services managing investments for the SIB.
- A list of investments at market value, compared to previous reporting period, of each account managed by each advisory service.
- Earnings, percentage earned, and change in market value of each account's investments.
- Comparison of the performance of each account managed by each advisory service to other accounts under the SIB's control and to generally accepted market indicators.
- All material legal or legislative proceedings affecting the SIB.
- Compliance with this investment policy.

❖ **Bismarck City Police Pension Plan** **Actual Asset Allocation – June 30, 2018**

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Domestic Large Cap Equity	\$ 4,296,918	11%	15.96%
Domestic Small Cap Equity	3,075,231	8%	17.69%
Global Equity	6,359,965	16%	10.52%
Developed International Equity	3,435,833	8%	10.31%
Emerging Markets Equity	1,675,168	4%	9.46%
Private Equity	1,521,543	4%	5.26%
Investment Grade Fixed Income	8,852,241	22%	1.61%
Below Investment Grade Fixed Income	2,788,853	7%	3.63%
Global Real Estate	4,658,724	12%	7.70%
Timber	1,116,048	3%	-2.52%
Infrastructure	2,123,174	5%	7.37%
Cash Equivalents	202,550	<1%	1.44%
Total Fund	<u>\$ 40,106,248</u>		8.36%
Policy Benchmark			7.20%

Columns may not foot due to rounding.



CITY OF GRAND FORKS PENSION PLAN

❖City of Grand Forks Pension Plan Investment Objectives and Policy Guidelines

Plan Characteristics and Fund Constraints

The City of Grand Forks Pension Fund (the “Fund”) is operated by the Grand Forks City Council pursuant to the authority granted in the Grand Forks City Code Chapter 7.

The City of Grand Forks, North Dakota Pension Plan (the “Plan”) is a cost-sharing multiple employer public employee pension plan. All classified employees who earned at least one hour of service prior to January 1, 1996 are eligible to participate in the Plan. Some participants have elected to cease benefit accruals under the Plan as of June 30, 2008 and to participate in the North Dakota Public Employees Retirement System.

Benefit provisions are established by the City Council. The employers contribute such amounts as necessary to provide the promised benefits. The contribution amounts are determined by the annual valuation report and approved by the City Council.

Fund Goals

The plan benefits are financed through both employer and employee contributions and the investment earnings on assets held in the Fund. The City Council recognizes that a sound investment program is essential to meet the pension obligations.

As a result, the Fund goals are to:

- Improve the Plan’s funding status to protect and sustain current and future benefits.
- Minimize the employee and employer contributions needed to fund the Plan over the long term.
- Avoid substantial volatility in required contribution rates and fluctuations in the Plan’s funding status.
- Accumulate a funding surplus to provide increases in retiree annuity payments to preserve the purchasing power of their retirement benefit.

The City Council acknowledges the material impact that funding the pension plan has on the City’s financial performance. These goals affect the Fund’s investment strategies and often represent conflicting goals. For example, minimizing the long-term funding costs implies a less conservative investment program, whereas dampening the volatility of contributions and avoiding large swings in the funding status implies a more conservative investment program. The City Council places greater emphasis on the strategy of improving the funding status and reducing the contributions that must be made to the Fund, as it is most consistent with the long-term goal of conserving money to apply to other important projects.

Responsibilities and Discretion of the State Investment Board (SIB)

The City Council has entered into a contract with the SIB for investment services as allowed under NDCC 21-10-06. The City Council is responsible for establishing policies on investment goals and asset allocation of the Fund. The SIB is

charged with implementing these policies and investing the assets of the Fund in the manner provided in NDCC 21-10-07, the prudent investor rule. Under this rule, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. The Fund must be invested exclusively for the benefit of the members and their beneficiaries in accordance with this investment policy.

Management responsibility for the investment program not assigned to the SIB in Chapter 21-10 of the North Dakota Century Code (NDCC) is hereby delegated to the SIB, who must establish written policies for the operation of the investment program, consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB’s role in determining investment strategy and security selection is supervisory, not advisory.

At the discretion of the SIB, the Fund’s assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and the objectives of the funds participating in the pools.

The SIB is responsible for establishing criteria, procedures, and making decisions with respect to hiring, keeping, and terminating money managers. SIB investment responsibility also includes selecting performance measurement services, consultants, report formats, and frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

The City Council is unwilling to undertake investment strategies that might jeopardize the ability of the Fund to finance the pension benefits promised to plan participants. However, funding the pension promise in an economical manner is critical to the City Council’s ability to continue to provide pension benefits to plan participants. Thus, the City Council actively seeks to lower the cost of funding the plan’s pension obligations by taking on risk for which it expects to be compensated over the long term. The City Council understands that a prudent investment approach to risk taking can result in periods of under-performance for the Fund in which the funding status may decline. These periods, in turn, can lead to higher required contribution rates. Nevertheless, the City Council believes that such an approach, prudently implemented, best serves the long-run interests of the City and, therefore, of plan participants.

Investment Objectives

The City Council's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB.

1. The fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
2. The fund's risk, measured by the standard deviation of net returns, should not exceed 115% of the policy benchmark over a minimum evaluation period of five years.
3. The risk-adjusted performance of the fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

Benefit payments are projected to occur over a long period of time. This allows the City Council to adopt a long-term investment horizon and asset allocation policy for the management of fund assets. Asset allocation policy is critical because it defines the basic risk and return characteristics of the investment portfolio. Asset allocation targets are established using an asset-liability analysis designed to assist the City Council in determining an acceptable volatility target for the fund and an optimal asset allocation policy mix. This asset-liability analysis considers both sides of the plan balance sheet, utilizing both quantitative and qualitative inputs, in order to estimate the potential impact of various asset class mixes on key measures of total plan risk, including the resulting estimated impact of funded status and contribution rates. After consideration of all the inputs and a discussion of its own collective risk tolerance, the City Council approves the appropriate policy asset mix for the Fund.

Asset Class	Policy Target %
Global Equity	60
Public Equity	55
Private Equity	5
Global Fixed Income	24
Investment Grade	17
Non-investment Grade	7
Global Real Assets	15
Global Real Estate	7
Other	8
Cash	1

An allocation to Global Alternatives of up to 10% is authorized but shall not increase the expected volatility of the portfolio as measured in Section 5; and if utilized, all other targets will be adjusted pro-rata. The City Council does not endorse tactical asset allocation, therefore, it is anticipated the portfolio be managed as close to the policy target as is prudent and practicable while minimizing rebalancing costs. Rebalancing of the Fund to this target will be done in accordance with the SIB's

rebalancing policy.

Restrictions

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Use of derivatives will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction may be made which threatens the tax exempt status of the Fund.
- d. No unhedged short sales or speculative margin purchases may be made.
- e. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar time horizon and similar risk.

Social Investing is defined as "The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."

- f. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

Economically targeted investing is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

The Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the Plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the City Council's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for investment manager selection and monitoring. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives. Emphasis will be placed on five year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

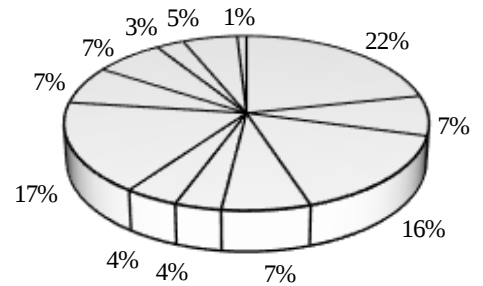
Performance reports will be provided to the City Council periodically, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including, but not limited to:

1. A list of the advisory services managing investments for the SIB.
2. A list of investments at market value, compared to previous reporting period, of each account managed by each advisory service.
3. Earnings, percentage earned, and change in market value of each account's investments.
4. Comparison of the performance of each account managed by each advisory service to other accounts under the SIB's control and to generally accepted market indicators.
5. All material legal or legislative proceedings affecting the SIB.
6. Compliance with this investment policy statement.

❖ **City of Grand Forks Pension Plan** **Actual Asset Allocation – June 30, 2018**

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Domestic Large Cap Equity	\$ 13,829,155	22%	15.96%
Domestic Small Cap Equity	4,713,247	7%	17.69%
Global Equity	10,020,162	16%	10.52%
Developed International Equity	4,512,351	7%	10.31%
Emerging Markets Equity	2,367,475	4%	9.46%
Private Equity	2,722,011	4%	5.26%
Investment Grade Fixed Income	10,832,252	17%	1.61%
Below Investment Grade Fixed Income	4,494,397	7%	3.46%
Global Real Estate	4,355,656	7%	7.70%
Timber	1,774,510	3%	-2.52%
Infrastructure	3,432,329	5%	7.37%
Cash Equivalents	579,663	1%	1.44%
Total Fund	<u>\$ 63,633,208</u>		9.46%
Policy Benchmark			8.38%

Columns may not foot due to rounding.



PARK DISTRICT OF THE CITY OF GRAND FORKS PENSION PLAN

❖Park District of the City of Grand Forks Pension Plan Investment Objectives and Policy Guidelines

Plan Characteristics and Fund Constraints

The Park District of the City of Grand Forks, North Dakota Pension Plan (the “Plan”) is a cost-sharing public employee pension plan operated by The Park District of the City of Grand Forks, North Dakota (the “District”) which serves as the Plan Administrator (“Administrator”) and Plan Sponsor (“Sponsor”). All employees are required to participate in the Plan. Some participants have elected to cease benefit accruals under the Plan as of January 1, 2010 and to participate in the North Dakota Public Employees Retirement System (“NDPERS”) pension plan. All future hires after December 31, 2009, will be required to participate in the NDPERS plan. The investment assets of the Plan are held within the Plan Fund (“Fund”).

Benefit provisions are established by the Park Board (“Board”) of the Sponsor. The employers contribute such amounts as necessary to provide the promised benefits. The contribution amounts are determined by the annual actuarial valuation report and approved by the Board.

Fund Goals

The plan benefits are financed through both employer and employee contributions and the investment earnings on assets held in the Fund. The Board recognizes that a sound investment program is essential to meet the pension obligations.

As a result, the Fund goals are to:

- Improve the Plan’s funding status to protect and sustain current and future benefits.
- Minimize the employee and employer contributions needed to fund the Plan over the long term.
- Avoid substantial volatility in required contribution rates and fluctuations in the Plan’s funding status.
- Accumulate a funding surplus to provide increases in retiree annuity payments to preserve the purchasing power of their retirement benefit.

The Board acknowledges the material impact that funding the pension plan has on the District’s financial performance. These goals affect the Fund’s investment strategies and often represent conflicting goals. For example, minimizing the long-term funding costs implies a less conservative investment program, whereas dampening the volatility of contributions and avoiding large swings in the funding status implies a more conservative investment program. The Board places greater emphasis on the strategy of improving the funding status and reducing the contributions that must be made to the Fund, as it is most consistent with the long-term goal of conserving money to apply to other important projects.

Responsibilities and Discretion of the State Investment Board (SIB)

The Board has entered into a contract with the SIB for

investment services as allowed under NDCC 21-10-06. The Board is responsible for establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and investing the assets of the Fund in the manner provided in NDCC 21-10-07, the prudent investor rule. Under this rule, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. The Fund must be invested exclusively for the benefit of the members and their beneficiaries in accordance with this investment policy.

Management responsibility for the investment program not assigned to the SIB in Chapter 21-10 of the North Dakota Century Code (NDCC) is hereby delegated to the SIB, who must establish written policies for the operation of the investment program, consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB’s role in determining investment strategy and security selection is supervisory, not advisory.

At the discretion of the SIB, the Fund’s assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and the objectives of the funds participating in the pools.

The SIB is responsible for establishing criteria, procedures, and making decisions with respect to hiring, keeping, and terminating money managers. SIB investment responsibility also includes selecting performance measurement services, consultants, report formats, and frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

The Board is unwilling to undertake investment strategies that might jeopardize the ability of the Fund to finance the pension benefits promised to plan participants. However, funding the pension promise in an economical manner is critical to the Board’s ability to continue to provide pension benefits to plan participants. Thus, the Board actively seeks to lower the cost of funding the plan’s pension obligations by taking on risk for which it expects to be compensated over the long term. The Board understands that a prudent investment approach to risk taking can result in periods of under-performance for the Fund in which the funding status may decline. These periods, in turn, can lead to higher required contribution rates. Nevertheless, the Board believes that such an approach, prudently implemented, best serves the long-run interests of the District and, therefore, of plan participants.

Investment Objectives

The Board's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB.

1. The fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
2. The fund's risk, measured by the standard deviation of net returns, should not exceed 115% of the policy benchmark over a minimum evaluation period of five years.
3. The risk-adjusted performance of the fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

Benefit payments are projected to occur over a long period of time. This allows the Board to adopt a long-term investment horizon and asset allocation policy for the management of fund assets. Asset allocation policy is critical because it defines the basic risk and return characteristics of the investment portfolio. Asset allocation targets are established using an asset-liability analysis designed to assist the Board in determining an acceptable volatility target for the fund and an optimal asset allocation policy mix. This asset-liability analysis considers both sides of the plan balance sheet, utilizing both quantitative and qualitative inputs, in order to estimate the potential impact of various asset class mixes on key measures of total plan risk, including the resulting estimated impact of funded status and contribution rates. After consideration of all the inputs and a discussion of its own collective risk tolerance, the Board approves the appropriate policy asset mix for the Fund.

Asset Class	Policy Target %
Global Equity	65
Public Equity	60
Private Equity	5
Global Fixed Income	25
Investment Grade	25
Global Real Assets	10
Global Real Estate	5
Other	5

An allocation to Global Alternatives of up to 10% is authorized but shall not increase the expected volatility of the portfolio as measured in Section 5; and if utilized, all other targets will be adjusted pro-rata. The Board does not endorse tactical asset allocation, therefore, it is anticipated the portfolio be managed as close to the policy target as is prudent and practicable while minimizing rebalancing costs. Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy.

Restrictions

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivatives use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction may be made which threatens the tax exempt status of the Fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- e. No unhedged short sales or speculative margin purchases may be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar time horizon and similar risk.

For the purpose of this document, social investing is defined as the consideration of socially responsible criteria in the investment or commitment of public fund money for the purpose of obtaining an effect other than a maximized return of the Fund.

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the Plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the City Council's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for investment manager selection and monitoring. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives. Emphasis will be placed on five year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

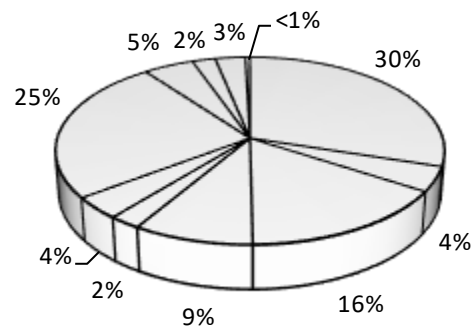
Performance reports will be provided to the Board periodically, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including, but not limited to:

1. A list of the advisory services managing investments for the SIB.
2. A list of investments at market value, compared to previous reporting period, of each account managed by each advisory service.
3. Earnings, percentage earned, and change in market value of each account's investments.
4. Comparison of the performance of each account managed by each advisory service to other accounts under the SIB's control and to generally accepted market indicators.
5. All material legal or legislative proceedings affecting the SIB.
6. Compliance with this investment policy statement.

❖ **Park District of the City of Grand Forks Pension Fund**
Actual Asset Allocation – June 30, 2018

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Domestic Large Cap Equity	\$ 2,019,024	30%	15.96%
Domestic Small Cap Equity	287,843	4%	17.69%
Global Equity	1,065,922	16%	10.52%
Developed International Equity	599,563	9%	10.31%
Emerging Markets Equity	158,070	2%	9.46%
Private Equity	259,060	4%	5.26%
Investment Grade Fixed Income	1,690,615	25%	1.61%
Global Real Estate	322,454	5%	*
Timber	147,872	2%	-2.52%
Infrastructure	192,880	3%	7.37%
Cash Equivalents	29,354	<1%	1.44%
Total Fund	<u>\$ 6,772,657</u>		9.33%
Policy Benchmark			8.02%

Columns may not foot due to rounding.



WORKFORCE SAFETY & INSURANCE FUND

❖ Workforce Safety & Insurance Fund Investment Objectives and Policy Guidelines

Introduction

North Dakota Workforce Safety & Insurance (WSI) is an exclusive state workers' compensation fund (Fund), which exists for the mutual benefit of North Dakota employers and employees. The assets of the Fund are utilized to pay benefits to injured workers or their survivors.

Section 65-04-01 of the North Dakota Century Code requires WSI to establish premium rates for funding sufficiently high to provide for:

1. The payment of the expenses of administration of the organization,
2. The payment of compensation according to the provisions and schedules contained in this title, and
3. The maintenance by the Fund of adequate reserves and surplus to the end that it may be kept at all times in an entirely solvent condition.

Responsibilities of the North Dakota State Investment Board (SIB)

The governing body of WSI is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. WSI fulfills this responsibility through its Board of Directors, under the oversight and approval of the Governor. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner consistent with the prudent investor rule as provided in NDCC 21-10-07. The Fund must be invested exclusively for the benefit of the members and their beneficiaries in accordance with this investment policy.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and the objectives of the funds participating in the pools.

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory not advisory.

The SIB is responsible for establishing criteria, procedures, and making decisions with respect to hiring, keeping, and terminating money managers. SIB investment responsibility also includes selecting performance measurement services, consultants, report formats, and frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Investment Objectives

The investment goal of WSI is to supplement premiums, through various investments, to accomplish its statutory obligations.

The following investment objectives are established as of the date adopted and are in keeping with the fiduciary requirements as set forth in federal and state law and as expected by the members. WSI expects to receive results from the SIB that are consistent with the policies included herein. These objectives and guidelines will provide a basis for evaluating the effectiveness of the investment program over time. It is clearly understood these objectives and standards are to be viewed over the long term and have been established after full consideration of all factors set out in the Statement of Investment Policy.

The operating and liquidity needs of WSI are generally to be met by the cash equivalents allocation.

Funds in excess of those required for operating and liquidity needs will be invested in domestic equity, international equity, real estate and fixed income securities. The objective of these assets is to obtain the maximum total return on investments consistent with safety of principal on funds in excess of those required for operating and liquidity needs.

Standards of Investment Performance

The Fund's investment objectives and characteristics give rise to an asset allocation that is considered to have greater than a 50% probability of achieving the results desired. For evaluation purposes, the following performance targets will apply:

- a. The rate of return, net of fees and expenses, should at least match that of the policy portfolio, over a minimum evaluation period of five years.
- b. Risk, as measured by the annual standard deviation of net returns for the Fund, should not exceed that of the policy portfolio by more than 100 basis points over a minimum evaluation period of five years.

- c. Risk adjusted excess returns of the Fund, net of fees and expenses, should match or exceed the policy benchmark over a minimum evaluation period of five years.

Policy and Guidelines

The asset allocation policy developed herein is based on an evaluation of WSI's ability and willingness to assume investment risk in light of WSI's financial goals and objectives. In recognition of these goals and objectives, coupled with a liability-sensitive asset allocation study conducted by Callan Associates in April of 2014, the following asset allocation is deemed appropriate for WSI. The portfolio mix shall be in accordance with the following asset allocation and periodically reviewed by WSI.

<u>Asset Class</u>	<u>Target Allocation</u>
Global Equity	22%
Large Cap Equity	11%
Small Cap Equity	3%
International Equity	8%
Global Fixed Income	60%
Domestic Fixed Income	60%
Global Real Assets	17%
Diversified Real Assets	12%
Real Estate	5%
Cash Equivalents	1%

Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy, but not less than annually.

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- Derivatives use will be monitored to ensure that undue risks are not taken by the money managers.
- No transaction shall be made which threatens the tax exempt status of the Fund.
- All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- No unhedged short sales or speculative margin purchases shall be made.
- Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Board's policy favors investments which will have a positive impact on the economy of North Dakota.

Evaluation and Review

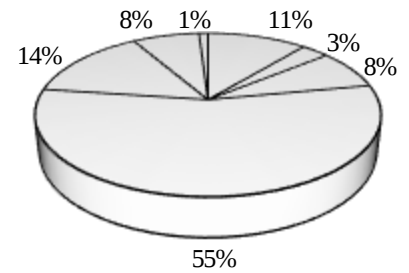
Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Evaluation will be conducted quarterly by the SIB through its review of funds participating in the Insurance Trust.

Money managers will be evaluated by the SIB quarterly. In-state meetings will be held with the money managers at least annually.

❖ **Workforce Safety & Insurance Fund**
Actual Asset Allocation – June 30, 2018

Asset Allocation	Fair Value	Percent of Total	One Year Return (net)
Domestic Large Cap Equity	\$ 213,157,407	11%	13.86%
Domestic Small Cap Equity	59,511,613	3%	17.10%
International Equity	151,223,924	8%	9.97%
Fixed Income	1,059,551,627	55%	1.05%
Diversified Real Assets	277,479,201	14%	7.28%
Real Estate	142,865,486	8%	7.31%
Cash Equivalents	<u>19,328,405</u>	1%	1.21%
Total Fund	\$ <u><u>1,923,117,663</u></u>		5.34%
Policy Benchmark			3.77%

Columns may not foot due to rounding.



STATE FIRE AND TORNADO FUND

❖ State Fire and Tornado Fund Investment Objectives and Policy Guidelines

Fund Characteristics and Constraints

The State Fire and Tornado Fund (the Fund) was established in 1919 to insure the various state industries and political subdivisions against direct physical loss to public buildings, fixtures, and permanent contents due to the perils named in 26.1-22-02 of the North Dakota Century Code (NDCC). All state buildings and universities must be covered by the Fund. School districts and counties may participate at their option. Funding is primarily provided by annual premiums charged to policy holders in accordance with NDCC 26.1-22.

Effective August 1993, the state's boiler inspection program was placed under the direction of the Insurance Department. The costs of this program are appropriated from the Fund. Fees collected for boiler inspections and licensing will be the primary source of funding for the program. The 1995 Legislature added anhydrous ammonia storage facilities to the Fund's inspection responsibilities.

A minimum balance of \$12.0 million must be maintained at all times. If reserves drop below this statutory minimum, additional premiums, as specified under NDCC 26.1-22, would be assessed. This situation must be avoided.

The Fund retains liability for the first \$1 million on each and every loss. Any loss over this amount, up to a maximum of \$100 million, is covered by reinsurance through a commercial reinsurance carrier. Reinsurance coverage is bid by the Insurance Department at least once every two years.

Claims paid from the Fund are highly unpredictable. Weather damage accounts for the majority of claims. Fires generally result in the most extensive damage. Generally, there is a two week lead time to prepare for a claim payment. Large claim payments have a longer lead time and are spread out in multiple payments whenever possible.

Operating expenses are paid from the Fund as incurred. These include Fund administration, boiler inspection program, anhydrous ammonia storage facility inspections, State Fire Marshall's Office, and North Dakota Firefighter's Association.

Fund Mission

The primary mission of the Fund is to maintain an adequate balance in the Fund to avoid the necessity of assessing additional premiums to policy holders.

Responsibilities and Discretion of the State Investment Board (SIB)

The Fund is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner provided in NDCC 21-10-07, the prudent institutional investor rule. The fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income.

Management responsibility for the investment program not assigned to the SIB in NDCC Chapter 21-10 is hereby delegated to the SIB, which must establish written policies for the operation of the investment program consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. When a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the funds participating in the pools.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants and report formats and determining the frequency of meetings with managers.

The SIB shall notify the Fund within 30 days of any substantial or notable changes in money managers, performance measurement services, and consultants, including hiring or terminating a money manager, performance measurement service, or consultant.

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

The investment objectives of the Fund reflect the long-term nature of the Fund, but also the low risk tolerance and shorter-term liquidity needs.

Investment Objectives

The Fund's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB:

- a. The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
- b. The Fund's risk, as measured by the standard deviation of net returns, should not exceed 115 percent of the policy benchmark over a minimum evaluation period of five years.
- c. The risk-adjusted performance of the Fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

After consideration of all the inputs and discussion of its own risk tolerance, the Fund has chosen the following asset allocation:

Large Cap Domestic Equity	18.75%
Small Cap Domestic Equity	6.25%
International Equity	10.00%
Fixed Income	55.00%
Cash Equivalents	10.00%

Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy, but not less than annually.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction may be made that would threaten the tax-exempt status of the Fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for investment manager selection and monitoring. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions, and compliance with the investment policy.

Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Emphasis will be placed on five year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

Performance reports will be provided to the Insurance Department periodically, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including but not limited to:

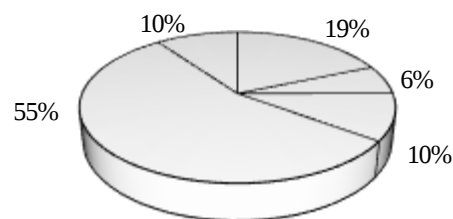
1. A list of advisory services managing investments for the Board.
2. A list of investments at market value, compared to the previous reporting period, of each fund managed by each advisory service.
3. Earnings, percentage earned, and change in market value of each fund's investments.
4. Comparison of the performance of each fund managed by each advisory service to other funds under the Board's control and to generally accepted market indicators.
5. All material legal or legislative proceedings affecting the SIB.
6. Compliance with this investment policy statement.

❖ State Fire and Tornado Fund

Actual Asset Allocation – June 30, 2018

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Domestic Large Cap Equity	\$ 4,315,557	19%	13.85%
Domestic Small Cap Equity	1,443,490	6%	17.09%
International Equity	2,303,073	10%	9.96%
Fixed Income	12,700,919	55%	1.05%
Cash Equivalents	2,303,745	10%	1.20%
Total Fund	<u>\$ 23,066,784</u>		5.32%
Policy Benchmark			4.36%

Columns may not foot due to rounding.



STATE BONDING FUND

❖ State Bonding Fund

Investment Objectives and Policy Guidelines

Fund Characteristics and Constraints

The State Bonding Fund (the Fund) was established for bonding public employees and public officials in accordance with Chapter 26.1-21 of the North Dakota Century Code (NDCC). Annual collections to the Fund are in the form of fees and restitution. However, the primary funding source for the Fund is investment return.

A minimum balance of \$2.0 million must be maintained at all times. If reserves drop below this statutory minimum, premiums will be assessed against all bond holders in accordance with NDCC 26.1-21-09. Such premiums will continue to be charged until the Fund balance reaches \$3.0 million. This situation must be avoided.

Claims paid from the Fund are on an as-needed basis and are highly unpredictable. A judgment against the guilty party is required prior to the Fund making a claim payment. Generally, there is a 60-90 day lead time to prepare for a claim payment. Appropriations from the Fund are exclusively for administrative costs.

Fund Mission

The primary mission of the Fund is to maintain an adequate balance in the Fund to avoid the necessity of assessing premiums to policy holders.

Responsibilities and Discretion of the State Investment Board (SIB)

The Fund is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner provided in NDCC 21-10-07, the prudent institutional investor rule. The fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probably safety of capital as well as probably income.

Management responsibility for the investment program not assigned to the SIB in NDCC Chapter 21-10 is hereby delegated to the SIB, which must establish written policies for the operation of the investment program consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. When a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish

whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the funds participating in the pools.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants and report formats and determining the frequency of meetings with managers.

The SIB shall notify the Fund within 30 days of any substantial or notable changes in money managers, performance measurement services, and consultants, including hiring or terminating a money manager, performance measurement service, or consultant.

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

The investment objectives of the Fund reflect the long-term nature of the Fund, but also the low risk tolerance and shorter-term liquidity needs.

Investment Objectives

The Fund's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB:

- a. The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
- b. The Fund's risk, as measured by the standard deviation of net returns, should not exceed 115 percent of the policy benchmark over a minimum evaluation period of five years.
- c. The risk-adjusted performance of the Fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

After consideration of all the inputs and discussion of its own risk tolerance, the Fund has chosen the following asset allocation:

Fixed Income	55.00%
Cash Equivalents	45.00%

Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy, but not less than annually.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction may be made that would threaten the tax-exempt status of the Fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.

- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for investment manager selection and monitoring. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions, and compliance with the investment policy.

Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Emphasis will be placed on five year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

Performance reports will be provided to the Insurance Department periodically, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including but not limited to:

1. A list of advisory services managing investments for the Board.
2. A list of investments at market value, compared to the previous reporting period, of each fund managed by each advisory service.
3. Earnings, percentage earned, and change in market value of each fund's investments.
4. Comparison of the performance of each fund managed by each advisory service to other funds under the Board's control and to generally accepted market indicators.
5. All material legal or legislative proceedings affecting the SIB.
6. Compliance with this investment policy statement.

❖ **State Bonding Fund****Actual Asset Allocation – June 30, 2018**

Asset Allocation	Fair Value	Percent of Total	One Year Return (net)
Fixed Income	\$ 1,876,981	55%	0.96%
Cash Equivalents	1,534,233	45%	1.20%
Total Fund	\$ <u>3,411,214</u>		1.07%
Policy Benchmark			0.40%



Columns may not foot due to rounding.

PETROLEUM TANK RELEASE COMPENSATION FUND

❖Petroleum Tank Release Compensation Fund Investment Objectives and Policy Guidelines

Fund Characteristics and Constraints

The Petroleum Tank Release Compensation Fund (the Fund) was established in 1989 in response to the Environmental Protection Agency's (EPA) requirement that all underground storage tank owners have proof of financial responsibility. Operation of the Fund is in accordance with ND23-37. The Fund's "sunset clause" date of June 30, 2011, has been extended and the time horizon for this Fund is uncertain at this time.

Funding is provided by annual premiums collected for above ground and underground petroleum storage tanks. Registration of tanks with the Fund is mandatory, although certain types of tanks are excluded.

A statutory minimum balance of \$6.0 million must be maintained in the Fund. Also, a minimum balance of \$2.0 million is required by EPA. In the event reserves drop below this minimum, EPA would evaluate the Fund's ability to pay claims and would in all likelihood disapprove the Fund as a financial responsibility mechanism for North Dakota petroleum tank owners.

If a petroleum release occurs or petroleum contamination is discovered, an eligible tank owner is reimbursed 90% of necessary and reasonable costs between \$5,000 and \$155,000 for cleanup of contamination or third-party liability. The Fund reimburses 100% of costs between \$155,000 and \$1,000,000.

Fund Mission

The primary mission of the Fund is to maintain the statutory minimum balance in the fund.

Responsibilities and Discretion of the State Investment Board (SIB)

The Fund is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner provided in NDCC 21-10-07, the prudent institutional investor rule. The fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probably safety of capital as well as probably income.

Management responsibility for the investment program not assigned to the SIB in NDCC Chapter 21-10 is hereby delegated to the SIB, which must establish written policies for the operation of the investment program consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. When a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the funds participating in the pools.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants and report formats and determining the frequency of meetings with managers.

The SIB shall notify the Fund within 30 days of any substantial or notable changes in money managers, performance measurement services, and consultants, including hiring and terminating a money manager, performance measurement service, or consultant.

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

The investment objectives of the Fund reflect the long-term nature of the Fund, but also the low risk tolerance and shorter-term liquidity needs.

Investment Objectives

The Fund's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB:

- a. The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
- b. The Fund's risk, as measured by the standard deviation of net returns, should not exceed 115 percent of the policy benchmark over a minimum evaluation period of five years.

- c. The risk-adjusted performance of the Fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

After consideration of all the inputs and discussion of its own risk tolerance, the Fund has chosen the following asset allocation:

Fixed Income	50.00%
Cash Equivalents	50.00%

Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy, but not less than annually.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction may be made that would threaten the tax-exempt status of the Fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for investment manager selection and monitoring. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions, and compliance with the investment policy.

Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Emphasis will be placed on five year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

Performance reports will be provided to the Insurance Department periodically, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including but not limited to:

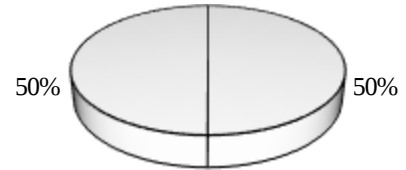
1. A list of advisory services managing investments for the Board.
2. A list of investments at market value, compared to the previous reporting period, of each fund managed by each advisory service.
3. Earnings, percentage earned, and change in market value of each fund's investments.

4. Comparison of the performance of each fund managed by each advisory service to other funds under the Board's control and to generally accepted market indicators.

5. All material legal or legislative proceedings affecting the SIB.
6. Compliance with this investment policy statement.

❖ **Petroleum Tank Release Compensation Fund**
Actual Asset Allocation – June 30, 2018

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Fixed Income	\$ 3,086,158	50%	1.05%
Cash Equivalents	<u>3,081,113</u>	50%	1.20%
Total Fund	<u>\$ 6,167,271</u>		1.13%
Policy Benchmark			0.49%



Columns may not foot due to rounding.

INSURANCE REGULATORY TRUST FUND

❖ Insurance Regulatory Trust Fund Investment Objectives and Policy Guidelines

Fund Characteristics and Constraints

The Insurance Regulatory Trust Fund (the Fund) was established for use by the Insurance Department to defray the expenses incurred in discharging its duties as described in NDCC 26.1.

Funding is provided primarily through the collection of fees and fines as specified in NDCC 26.1-01-07.1. Fees and other collections as well as earnings from investments are funding sources.

There is no statutory minimum balance for this Fund. However, the Insurance Department relies entirely on the Fund to meet all operating expenses. Therefore, sufficient liquidity and risk control must be maintained at all times to ensure the solvency of the Insurance Department.

In accordance with NDCC 26.1-01-07.1, any cash balance in the Fund after all current biennium expenditures are met must be carried forward for the succeeding biennium. However, when the balance at the end of the biennium exceeds \$1.0 million, any excess will be transferred to the general fund in the state treasury. Such transfers are generally made at the end of September or during the first two weeks of October. Operating expenses are paid from the Fund as incurred.

Fund Mission

The primary mission of the Fund is to maintain an adequate balance in the Fund to avoid the necessity of assessing premiums to policy holders.

Responsibilities and Discretion of the State Investment Board (SIB)

The Fund is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner provided in NDCC 21-10-07, the prudent institutional investor rule. The fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probably safety of capital as well as probably income.

Management responsibility for the investment program not assigned to the SIB in NDCC Chapter 21-10 is hereby delegated to the SIB, which must establish written policies for the operation of the investment program consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. When a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the funds participating in the pools.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants and report formats and determining the frequency of meetings with managers.

The SIB shall notify the Fund within 30 days of any substantial or notable changes in money managers, performance measurement services, and consultants, including hiring or terminating money managers, performance measurement services, or consultants

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

The investment objectives of the Fund reflect the long-term nature of the Fund, but also the low risk tolerance and shorter-term liquidity needs.

Investment Objectives

The Fund's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB:

- a. The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
- b. The Fund's risk, as measured by the standard deviation of net returns, should not exceed 115 percent of the policy benchmark over a minimum evaluation period of five years.
- c. The risk-adjusted performance of the Fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

After consideration of all the inputs and discussion of its own risk tolerance, the Fund has chosen the following asset allocation:

Large Cap Domestic Equity	15%
Small Cap Domestic Equity	5%
International Equity	10%
Fixed Income	35%
Cash Equivalents	35%

Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy, but not less than annually.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction may be made that would threaten the tax-exempt status of the Fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.

- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for investment manager selection and monitoring. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions, and compliance with the investment policy.

Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Emphasis will be placed on five year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

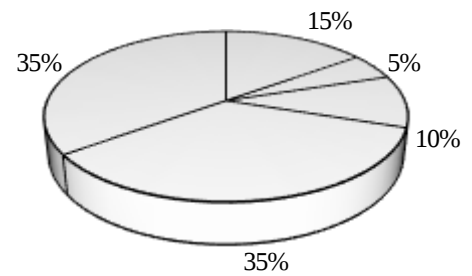
Performance reports will be provided to the Insurance Department periodically, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including but not limited to:

1. A list of advisory services managing investments for the Board.
2. A list of investments at market value, compared to the previous reporting period, of each fund managed by each advisory service.
3. Earnings, percentage earned, and change in market value of each fund's investments.
4. Comparison of the performance of each fund managed by each advisory service to other funds under the Board's control and to generally accepted market indicators.
5. All material legal or legislative proceedings affecting the SIB.
6. Compliance with this investment policy statement.

❖ **Insurance Regulatory Trust Fund**
Actual Asset Allocation – June 30, 2018

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Domestic Large Cap Equity	\$ 846,642	15%	13.85%
Domestic Small Cap Equity	286,222	5%	17.09%
International Equity	560,288	10%	9.96%
Fixed Income	1,973,305	35%	0.60%
Cash Equivalents	1,971,335	35%	1.20%
Total Fund	<u>\$ 5,637,792</u>		4.53%
Policy Benchmark			4.04%

Columns may not foot due to rounding.



STATE RISK MANAGEMENT FUND

❖ State Risk Management Fund

Investment Objectives and Policy Guidelines

Plan Characteristics and Fund Constraints

To address the State's loss of sovereign immunity, the 1995 North Dakota Legislature created a new chapter of the North Dakota Century Code (NDCC), 32-12.2. That Chapter established the Risk Management Fund (the Fund) to administer claims against the State and state employees for personal injury, death, or property damage caused by the State or a state employee acting within the scope of the employee's employment. The Fund is directed by the Office of Management and Budget (OMB).

Each entity of the State is required to participate in the Fund. Contributions to the Fund are determined by the Director of OMB based on an actuarial review of the financial status of the Fund. This results in a fluctuation of contributions made to the Fund from one biennium to another.

The amount of money damages the Fund may pay is limited for state court actions to a total of \$250,000 per person and \$1,000,000 per occurrence. These liability caps may not be recognized in Federal Court actions or in actions filed in other states. The Fund's excess carrier provides coverage up to \$10,000,000 for those exposures not covered by the Tort Claims Act.

Significant claims paid from the Fund are usually somewhat predictable and take a period of time to resolve. A person bringing a claim or lawsuit against the State or a state employee must give notice to the OMB Director within 180 days after the alleged injury is discovered or reasonably should have been discovered. If the claim is one for death, the notice must be provided within one year after the alleged injury resulting in the death.

The Risk Management Division's operating expenses including loss control activities are paid from the Fund as incurred.

Responsibilities of the State Investment Board (SIB)

The Fund is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner consistent with the prudent investor rule as provided in NDCC 21-10-07.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the funds participating in the pools.

The SIB may delegate investment responsibility to professional money managers. When a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants, and report formats and determining the frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Investment Objectives

The Fund's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB:

- 1) The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
- 2) The Fund's risk, measured by the standard deviation of net returns, should not exceed the risk of the policy benchmark by more than 1% over a minimum evaluation period of five years. For example, if the risk of the policy benchmark is 4%, the Fund's risk should not exceed 5% over a five-year period.
- 3) The risk adjusted performance of the Fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

The asset allocation of the Fund is established by the SIB, with input from the OMB. Asset allocation is based upon the appraisal of projected liquidity and income requirements, and estimates of the investment returns likely to be achieved by the various asset classes over the next five years.

In recognition of these factors, the following allocation is deemed appropriate for the Fund:

Large Cap Domestic Equity	22.5%
Small Cap Domestic Equity	7.5%
Fixed Income	65.0%
Cash Equivalents	5.0%

While the Fund recognizes fluctuations in market values will lead to short-term deviations from policy targets, the Fund does not intend to engage in tactical asset allocation.

Rebalancing of the Fund to this allocation will be done in accordance with the SIB's rebalancing policy.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- d. No funds shall be borrowed.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as "The investment or commitment of public fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar

investment with a similar time horizon and similar risk.

- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for broker relationships. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation and Review

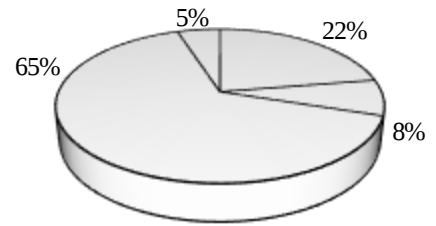
Investment management of the Fund will be evaluated against the Fund's investment objectives. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

Performance reports will be provided to the Fund periodically, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including but not limited to:

- 1) A list of the advisory services managing investments for the board.
- 2) A list of investments at market value, compared to previous reporting period, of each fund managed by each advisory service.
- 3) Earnings, percentage earned, and change in market value of each fund's investments.
- 4) Comparison of the performance of each fund managed by each advisory service to other funds under the board's control and to generally accepted market indicators.
- 5) All material legal or legislative proceedings affecting the SIB.
- 6) Compliance with this investment policy statement.

❖ **State Risk Management Fund**
Actual Asset Allocation – June 30, 2018

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Domestic Large Cap Equity	\$ 1,111,487	22%	13.85%
Domestic Small Cap Equity	372,659	8%	17.09%
Fixed Income	3,224,199	65%	1.15%
Cash Equivalents	247,871	5%	1.20%
Total Fund	<u>\$ 4,956,216</u>		5.14%
Policy Benchmark			4.27%



Columns may not foot due to rounding.

STATE RISK MANAGEMENT WORKERS COMPENSATION FUND

❖ State Risk Management Workers Comp Fund Investment Objectives and Policy Guidelines

Plan Characteristics and Fund Constraints

The 2001 North Dakota Legislature established a single workers' compensation account for state entities, N.D.C.C. § 65-04-03.1. N.D.C.C. § 65-04-03.1(2) directs that workers' compensation premiums from state entities must be deposited in the Risk Management Workers Compensation Fund (Fund) and the State Investment Board is directed to invest the Fund in accordance with chapter 21-10.

The Risk Management Division of the Office of Management and Budget is responsible for administering the Fund to include promulgating rules, collecting and dispersing funds, and establishing an internal workers' compensation return-to-work program. Each entity of the State is required to participate in the program unless exempted by the director of the Office of Management and Budget. Contributions to the Fund are determined by Workforce Safety & Insurance (WSI) based on an actuarial review of combined payroll, premium, and loss history of agencies to determine experience rates, assessments, and premiums. The actuarial assumed rate of return is 3%.

The Risk Management Workers Compensation Program charges the entity the first \$250 (\$0 if a designated medical provider is used for treatment) of each accepted claim and pays disability and medical benefits of up to \$100,000 dollars per claim. Dollar amounts for claims in excess of \$100,000 are paid for by WSI. In turn the Program pays WSI approximately \$1.7 million per year in premiums.

Responsibilities of the State Investment Board (SIB)

The Fund is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner consistent with the prudent investor rule as provided in NDCC 21-10-07.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the funds participating in the pools.

The SIB may delegate investment responsibility to professional money managers. When a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants, and report formats and determining the frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Investment Objectives

The Fund's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB:

- 1) The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
- 2) The Fund's risk, measured by the standard deviation of net returns, should not exceed the risk of the policy benchmark by more than 1% over a minimum evaluation period of five years. For example, if the risk of the policy benchmark is 4%, the Fund's risk should not exceed 5% over a five-year period.
- 3) The risk adjusted performance of the Fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

The asset allocation of the Fund is established by the SIB, with input from the OMB. Asset allocation is based upon the appraisal of projected liquidity and income requirements, and estimates of the investment returns likely to be achieved by the various asset classes over the next five years.

In recognition of these factors, the following allocation is deemed appropriate for the Fund:

Large Cap Domestic Equity	27.75%
Small Cap Domestic Equity	9.25%
Fixed Income	60.00%
Cash Equivalents	3.00%

While the Fund recognizes fluctuations in market values will lead to short-term deviations from policy targets, the Fund does not intend to engage in tactical asset allocation.

Rebalancing of the Fund to this allocation will be done in accordance with the SIB's rebalancing policy.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. All assets will be held in custody by the State Investment Board's master custodian or such other custodians as are acceptable to the State Investment Board.
- d. No funds shall be borrowed.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as "The investment or commitment of public fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.

- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for broker relationships. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

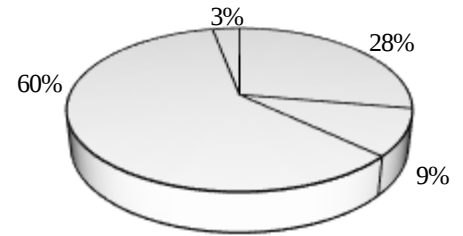
Performance reports will be provided to the Fund periodically, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including but not limited to:

- 1) A list of the advisory services managing investments for the board.
- 2) A list of investments at market value, compared to previous reporting period, of each fund managed by each advisory service.
- 3) Earnings, percentage earned, and change in market value of each fund's investments.
- 4) Comparison of the performance of each fund managed by each advisory service to other funds under the board's control and to generally accepted market indicators.
- 5) All material legal or legislative proceedings affecting the SIB.
- 6) Compliance with this investment policy statement.

❖ **State Risk Management WC Fund**
Actual Asset Allocation – June 30, 2018

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Domestic Large Cap Equity	\$ 1,482,749	28%	13.85%
Domestic Small Cap Equity	496,272	9%	17.09%
Fixed Income	3,216,680	60%	1.07%
Cash Equivalents	160,848	3%	1.20%
Total Fund	<u>\$ 5,356,549</u>		6.03%
Policy Benchmark			5.32%

Columns may not foot due to rounding.



NORTH DAKOTA CULTURAL ENDOWMENT FUND

❖ND Cultural Endowment Fund Investment Objectives and Policy Guidelines

Fund Characteristics and Constraints

The North Dakota Cultural Endowment Fund (Fund) was created by the State Legislature in 1979 and is governed by NDCC 54-54-08.2.

The Fund was established “to improve the intrinsic quality of the lives of the state’s citizens now and in the future through programs approved by the council on the arts.” Such programs must:

1. Increase cultural awareness by the state’s citizens through programs in arts, crafts, theater, ethnic and folk arts, literature, journalism, public media, historic preservation and interpretation, visual arts, and architecture.
2. Make the items named in #1 above more available to the state’s citizens.
3. Encourage the development of talent in the areas named in #1 above within the state.
4. Preserve and increase understanding of North Dakota’s heritage and future.

The goals of the Fund are:

- To create a vehicle through which the North Dakota Council on the Arts can secure private and public funds to enhance existing programs;
- And to provide a stable funding source for the Council.

Sources of funding for the Fund are private donations and periodic General Fund appropriations. The current principal balance that must be maintained in the Fund is \$150,000. Disbursements from the Fund will amount to approximately \$5,000 per year for fellowship grants.

Responsibilities and Discretion of the State Investment Board (SIB)

The Fund is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner consistent with the prudent investor rule as provided in NDCC 21-10-07.

At the discretion of the SIB, the Fund’s assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the funds participating in the pools.

The SIB may delegate investment responsibility to professional money managers. When a money manager has been retained, the SIB’s role in determining investment strategy and security selection is supervisory, not advisory.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants, and report formats and determining the frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Investment Objectives

The investment objectives of the Fund reflect the long-term nature of the Fund, but also the low risk tolerance and shorter-term liquidity needs. Operating and statutory considerations shape the Funds policies and priorities as outlined below:

Objective #1: Investment income is needed to provide balance in investment return sources. This will be achieved through a diversified portfolio of high quality fixed income and equity assets.

Objective #2: Growth of capital is needed to provide an inflationary hedge. Capital growth will be sought through investment in equities.

Objective #3: Sufficient liquidity is to be maintained to meet known or anticipated financial obligations. Cash equivalent investments will be used to achieve this objective.

Objective #4: The risk of violating the mandated minimum balance requirement of \$150,000 is to be minimized. This will be achieved by an asset allocation consistent with this objective.

Standards of Investment Performance

The Fund’s investment objectives and liquidity constraints give rise to an asset allocation that is considered the most likely to achieve the results desired. For evaluation purposes, the following performance targets will apply:

- a. The Fund should produce a rate of return that meets or exceeds the portfolio policy index defined as 33.75% S&P 500 domestic stock index, 11.25% Russell 2000 domestic small cap index, 10% MSCI EAFE international stock index, 37% Barclays Capital Aggregate domestic bond index, 5% NCREIF Total real estate index, and 3% 90-day Treasury bills.
- b. The annual standard deviation of total returns for the Fund should not exceed that of the policy portfolio.
- c. Over 10 year and longer time periods the Fund should match or exceed the expected 7.26% rate of return based on Callan Associates’ 2005 market projections. Expected risk for the period, measured by standard deviation, is 10.44%.

Policy and Guidelines

The asset allocation of the Cultural Endowment Fund is established by the North Dakota Council on the Arts, with input from the SIB. Asset allocation is based upon the appraisal of projected liquidity and income requirements, and estimates of the investment returns likely to be achieved by the various asset classes over the next five years.

In recognition of these factors, the following allocation is deemed appropriate for the fund:

Large Cap Domestic Equities	33.75%
Small Cap Domestic Equities	11.25%
International Equities	10.00%
Domestic Fixed Income	37.00%
Real Estate	5.00%
Cash Equivalents	3.00%

Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy.

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- All assets will be held in custody by the State Investment Board's master custodian or such other custodians as are acceptable to the State Investment Board.
- No funds shall be borrowed.
- No unhedged short sales or speculative margin purchases shall be made.
- Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as "The investment or commitment of public

pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."

- Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- The cost does not exceed the fair market value at the time of investment.
- The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

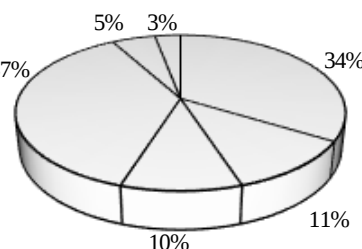
Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Evaluation will be conducted quarterly by the SIB through its review of funds participating in the Insurance Trust.

Money managers will be evaluated by the SIB quarterly. In-state meetings will be held with the money managers at least annually.

❖ **ND Cultural Endowment Fund**
Actual Asset Allocation – June 30, 2018

Asset Allocation	Fair Value	Percent of Total	One Year Return (net)
Domestic Large Cap Equity	\$ 151,119	34%	13.85%
Domestic Small Cap Equity	50,584	11%	17.09%
International Equity	44,822	10%	9.96%
Fixed Income	166,165	37%	0.88%
Real Estate	22,714	5%	7.31%
Cash Equivalents	13,423	3%	1.20%
Total Fund	\$ 448,827		8.27%
Policy Benchmark			7.74%



Columns may not foot due to rounding.

NORTH DAKOTA BUDGET STABILIZATION FUND

❖ND Budget Stabilization Fund Investment Objectives and Policy Guidelines

Fund Characteristics and Constraints

The Budget Stabilization Fund (Fund) is a special fund created in 1987 under Chapter 54-27.2 of the North Dakota Century Code used to deposit general fund moneys in excess of appropriations. Notwithstanding the provisions of sections 54-27.2-01 and 54-27.2-02, \$124,936,548 was required to be transferred by the state treasurer to the budget stabilization fund from the general fund on July 1, 2009, along with \$61,414,562 on July 1, 2011 and \$181,060,584 on July 1, 2013. The statutory cap for the 2015-17 biennium is \$572,485,454. The state investment board shall supervise investment of the budget stabilization fund in accordance with chapter 21-10.

Any interest or other budget stabilization fund earnings must be deposited in the fund. Any amounts provided by law for deposit in the fund and any interest or earnings of the fund which would bring the balance in the fund to an amount greater than five percent of the current biennial state general fund budget, as finally approved by the most recently adjourned special or regular session of the legislative assembly, may not be deposited or retained in the fund but must be deposited instead in the state general fund.

If the director of the office of management and budget projects that general fund revenues for the biennium will be at least two and one-half percent less than estimated by the most recently adjourned special or regular session of the legislative assembly, and if the governor orders a transfer, the state treasurer shall transfer the appropriate funds from the budget stabilization fund to the state general fund to offset the decrease in general fund revenues. The amount transferred from the budget stabilization fund upon order of the governor may not exceed the difference between an amount two and one-half percent below the general fund revenue projections for the biennium and the general fund revenue projections for the biennium by the director of the office of management and budget.

Responsibilities and Discretion of the State Investment Board (SIB)

The Fund is charged by law under NDCC 21-10-02.1 with the responsibility of establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner consistent with the prudent investor rule as provided in NDCC 21-10-07.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the funds participating in the pools.

The SIB may delegate investment responsibility to professional money managers. When a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory. In accordance with this Investment Policy Statement, the Fund's assets may be invested directly or through collective investment vehicles.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants, and report formats and determining the frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Investment Objectives

The investment objectives of the Fund reflect the relatively unknown life-span and the moderate risk tolerance of the Fund. Operating and statutory considerations shape the Fund's policies and priorities as outlined below:

Objective: Sufficient liquidity is to be maintained to meet known or anticipated financial obligations and preserve the value of the surplus. Cash equivalent investments will be used to achieve this objective.

Standards of Investment Performance

The Fund's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB:

- a. The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
- b. The risk-adjusted performance of the Fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy and Guidelines

The asset allocation of the Fund is established by the SIB, with input from the Legacy and Budget Stabilization Advisory Board. Asset allocation is based upon the appraisal of projected liquidity and income requirements, and estimates of the investment returns likely to be achieved by the various asset classes over the next five years.

In recognition of these factors, the following allocation is deemed appropriate for the fund:

Short-term Fixed Income	Minimum of 90%
Bank Loans w/floating yield	Maximum of 5%
Absolute Return Strategies	Maximum of 5%

On June 17, 2017, the Advisory Board acknowledged the Bank of North Dakota Match Loan Certificates of Deposit Program (BND CD) was transferred to the Legacy Fund in early-2017.

Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy.

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. All assets will be held in custody by the State Investment Board's master custodian or such other custodians as are acceptable to the State Investment Board.
- d. No funds shall be borrowed.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

Evaluation and Review

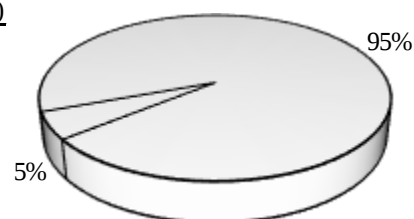
Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Evaluation will be conducted quarterly by the SIB through its review of funds participating in the Insurance Trust.

Money managers will be evaluated by the SIB quarterly. In-state meetings will be held with the money managers at least annually.

❖ ND Budget Stabilization Fund Actual Asset Allocation – June 30, 2018

Asset Allocation	Fair Value	Percent of Total	One Year Return (net)
Short-term Fixed Income	\$ 107,645,485	95%	0.30%
Cash Equivalents	5,958,293	5%	1.20%
Total Fund	<u>\$ 113,603,778</u>		0.32%
Policy Benchmark			0.24%

Columns may not foot due to rounding.



NORTH DAKOTA ASSOCIATION OF COUNTIES

❖ND Association of Counties (NDACo) Fund Investment Objectives and Policy Guidelines

Introduction

The North Dakota Association of Counties (NDACo) (Fund) was established to aid in the administration of county government by providing a medium for exchange of information, ideas, and experience of county officials; promote training; facilitate cooperation with all levels of government; and be a legislative advocate for counties. NDACo and the benefits provided there under are funded by dues from member counties and special programs and projects of NDACo.

Responsibilities and Discretion of the State Investment Board (SIB)

NDACo has entered into a contract with the SIB for investment services as allowed under NDCC 21-10-06. It is the responsibility of NDACo to establish policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner consistent with the prudent investor rule as provided in NDCC 21-10-07.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the Fund participating in the pools.

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants and report formats and determining the frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

Funds in excess of those required for operating and claims payment needs will be invested to obtain the maximum total return on investments consistent with safety of principal on funds in excess of those required for operating and claims payment needs. The investment funds may be comprised of fixed income securities and equity securities. Individual investments may be either actively or passively managed.

Investment Objective

The Fund's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive

benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB.

1. The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years
2. Risk, as measured by the annual standard deviation of net returns for the Fund, should not exceed that of the policy portfolio by more than 100 basis points over a minimum evaluation period of five years.
3. The risk-adjusted performance of the Fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

Asset allocation policy is critical because it defines the basic risk and return characteristics of the investment portfolio. Asset allocation targets are established using an asset allocation analysis designed to assist the Fund in determining an acceptable volatility target for the Fund and an optimal asset allocation policy mix. This analysis estimates the potential impact of various asset class mixes on key measures of total fund risk.

After consideration of all the inputs and a discussion concerning risk tolerance, the Fund approves the appropriate policy mix for the Fund.

Large Cap Equity	20%
Small Cap Equity	5%
International Equity	10%
Domestic Fixed Income	62%
Cash Equivalents	3%

While the Fund recognizes fluctuations in market values will lead to short-term deviations from policy targets, the Fund does not intend to engage in tactical asset allocations. Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy, but not less than annually.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction may be made that would threaten the tax-exempt status of the Fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.

- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for investment manager selection and monitoring. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions, and compliance with the investment policy.

Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Emphasis will be placed on five year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

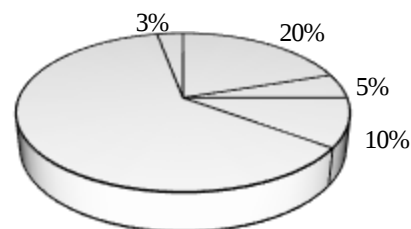
Performance reports will be provided to the Insurance Department periodically, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including but not limited to:

1. A list of advisory services managing investments for the Board.
2. A list of investments at market value, compared to the previous reporting period, of each fund managed by each advisory service.
3. Earnings, percentage earned, and change in market value of each fund's investments.
4. Comparison of the performance of each fund managed by each advisory service to other funds under the Board's control and to generally accepted market indicators.
5. All material legal or legislative proceedings affecting the SIB.
6. Compliance with this investment policy statement.

❖ ND Association of Counties (NDACo) Fund Actual Asset Allocation – June 30, 2018

Asset Allocation	Fair Value	Percent of Total	One Year Return (net)
Domestic Large Cap Equity	\$ 1,179,644	20%	13.85%
Domestic Small Cap Equity	295,994	5%	17.09%
International Equity	590,066	10%	9.96%
Fixed Income	3,667,848	62%	0.73%
Cash Equivalents	177,110	3%	1.20%
Total Fund	<u>\$ 5,910,662</u>		4.48%
Policy Benchmark			3.70%

Columns may not foot due to rounding.



CITY OF BISMARCK DEFERRED SICK LEAVE ACCOUNT

❖ City of Bismarck Deferred Sick Leave Investment Objectives and Policy Guidelines

Fund Characteristics and Constraints

The City of Bismarck Deferred Sick Leave Account (the Fund) represents money set aside to cover the City's unfunded liability of employees' accrued sick leave. People who terminate employment with the City shall be compensated for unused sick leave from this Fund. In time, it is expected that the Fund will become depleted.

Responsibilities and Discretion of the State Investment Board (SIB)

The City of Bismarck (Client) has entered into a contract with the SIB for investment services as allowed under NDCC 21-10-06. It is the responsibility of the Client to establish policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner consistent with the prudent investor rule as provided in NDCC 21-10-07.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish appropriate asset class pools designed to provide specific quality and diversification guidelines, restrictions, and performance objectives consistent with the goals of the funds participating in the pools.

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants and report formats and determining the frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Investment Objectives

The investment objectives are to obtain a reasonable rate of return on the Fund while maintaining sufficient liquidity to meet known or anticipated financial obligations. Operating considerations shape the Fund's policies and priorities as outlined below:

Objective #1: Investment income is needed as a funding source. This will be achieved through a diversified portfolio of high quality fixed income and equity assets.

Objective #2: Growth of capital is needed to provide an inflationary hedge and add to the growth of the Fund. Capital growth is sought through investment in equities and/or equity substitutes.

Standards of Investment Performance

The Fund's investment objectives and liquidity constraints give rise to an asset allocation that is considered the most likely to achieve the results desired. For evaluation purposes, the following performance targets will apply:

- a. The Fund should produce a rate of return that meets or exceeds the portfolio policy index defined as 15% S&P 500 domestic stock index, 5% Russell 2000 domestic small cap index, 10% MSCI EAFE international stock index, 65% Barclays Capital Aggregate domestic bond index, and 5% 90-day Treasury Bills.
- b. The annual standard deviation of total returns for the Fund should be consistent with that of the policy portfolio.
- c. Over 10 year and longer time periods the Fund should match or exceed the expected 6.00% rate of return based on Callan Associates' 2005 market projections. Expected risk for the period, measured by standard deviation, is 6.50%.

Policy and Guidelines

The asset allocation of the Fund is established by the City of Bismarck. Asset allocation is based upon the appraisal of projected liquidity requirements and sick leave payment demand, and estimates of the investment returns likely to be achieved by the various asset classes over the next five years.

In recognition of these factors, the following allocation is deemed appropriate for the Fund:

Large Cap Domestic Equity	15%
Small Cap Domestic Equity	5%
International Equity	10%
Fixed Income	65%
Cash Equivalents	5%

Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy.

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- d. No funds shall be borrowed.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as "The investment or commitment of public fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

Evaluation and Review

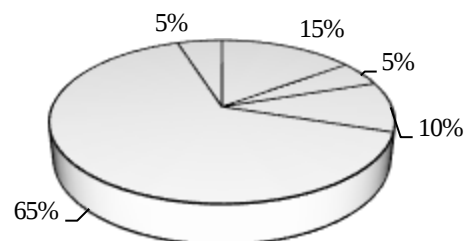
Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Evaluation will be conducted quarterly by the SIB through its review of funds participating in the Insurance Trust.

Money managers will be evaluated by the SIB quarterly. In-state meetings will be held with the money managers at least annually.

❖ City of Bismarck Deferred Sick Leave Actual Asset Allocation – June 30, 2018

Asset Allocation	Fair Value	Percent of Total	One Year Return (net)
Domestic Large Cap Equity	\$ 109,233	15%	13.85%
Domestic Small Cap Equity	36,515	5%	17.09%
International Equity	72,845	10%	9.96%
Fixed Income	475,146	65%	1.10%
Cash Equivalents	36,289	5%	1.20%
Total Fund	<u>\$ 730,028</u>		4.66%
Policy Benchmark			3.50%

Columns may not foot due to rounding.



NDPERS GROUP INSURANCE ACCOUNT

❖NDPERS Group Insurance Account Investment Objectives and Policy Guidelines

Introduction

The ND Public Employees Retirement System (PERS) Group Insurance Account (the Fund) was established to hold insurance premiums collected from employers until paid to the insurance carrier.

Responsibilities and Discretion of the State Investment Board (SIB)

PERS has entered into a contract with the SIB for investment services as allowed under NDCC 21-10-06. It is the responsibility of PERS to establish policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets in a manner consistent with the prudent investor rule as provided in NDCC 21-10-07.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the funds participating in the pools.

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants and report formats and determining the frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Investment Objectives

Premiums are collected throughout the month at PERS and will be forwarded to the Fund investment account on the 1st and 15th of each month. The premiums transferred into the investment account will be transferred back to PERS on approximately the 22nd of each month so they may be remitted to the insurance carrier. The investment objective of the Fund is to maximize the return on the deposits within the short-term time-frame involved.

Standards of Investment Performance

The Fund's investment objectives and liquidity constraints give rise to an asset allocation that is considered the most likely to achieve the results desired. For evaluation purposes, the following performance targets will apply:

- The Fund should produce a rate of return that meets or exceeds the portfolio policy index defined as the 90-day Treasury bill.
- The annual standard deviation of total returns for the Fund should not materially exceed that of the policy portfolio.

Policy and Guidelines

The asset allocation of the Fund is established by PERS, with input from the SIB. Asset allocation is based upon the appraisal of projected liquidity and income requirements, and estimates of the investment returns likely to be achieved by the various asset classes over the next five years. In recognition of this factor, the following allocation is deemed appropriate for the Fund:

Short Term Fixed Income	95% (not to exceed \$36m)
Cash Equivalents	5%

This cash will be held in an enhanced money market account at the Fund's custodian.

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- No transaction may be made that would threaten the tax-exempt status of the Fund.
- All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- No unhedged short sales or speculative margin purchases shall be made.
- Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an*

effect other than a maximized return to the intended beneficiaries."

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

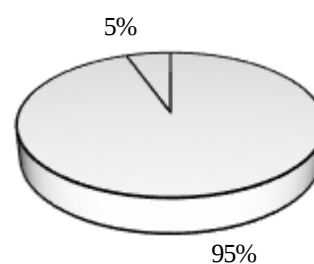
Evaluation and Review

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Evaluation will be conducted quarterly by the SIB through its review of funds participating in the Insurance Trust.

Money managers will be evaluated by the SIB quarterly. In-state meetings will be held with the money managers at least annually.

❖NDPERS Group Insurance Account Actual Asset Allocation – June 30, 2018

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Short Term Fixed Income	\$ 29,876,027	95%	0.30%
Cash Equivalents	1,734,680	5%	1.20%
Total Fund	<u>\$31,610,707</u>		0.41%
Policy Benchmark			0.33%



CITY OF FARGO FARGODOME PERMANENT FUND

❖ City of Fargo FargoDome Permanent Fund Investment Objectives and Policy Guidelines

Fund Characteristics and Constraints

The City of Fargo has set aside excess sales tax collections intended for the administration of the FargoDome in the FargoDome Permanent Fund (Fund). This fund is intended to provide financial resources necessary for the ongoing upkeep of this large City owned facility over a long term time horizon.

Responsibilities of the State Investment Board (SIB)

The City of Fargo (Client) has entered into a contract with the SIB for investment services as allowed under NDCC 21-10-06. It is the responsibility of the Client to establish policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the Fund in a manner consistent with the prudent investor rule as provided in NDCC 21-10-07.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and objectives of the funds participating in the pools.

The SIB may delegate investment responsibility to professional money managers. When a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. This responsibility includes selecting performance measurement services, consultants, and report formats and determining the frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Investment Objectives

The investment objectives are to obtain a reasonable rate of return on the Fund while maintaining sufficient liquidity to meet known or anticipated financial obligations. Operating considerations shape the Fund's policies and priorities as outlined below:

Objective #1: Investment income is needed as a funding source. This will be achieved through a diversified portfolio of high quality fixed income and equity assets.

Objective #2: Growth of capital is needed to provide an inflationary hedge and add to the growth of the Fund. Capital growth is sought through investment in equities and/or equity substitutes.

Standards of Investment Performance

The Fund's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB.

1. The fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
2. The fund's risk, measured by the standard deviation of the net returns, should not exceed 115% of the policy benchmark over a minimum evaluation period of five years.
3. The risk-adjusted performance of the fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy and Guidelines

The asset allocation of the Fund is established by the City of Fargo Finance Committee, with input from RIO staff. Asset allocation is based upon the appraisal of projected liquidity and income requirements, and estimates of the investment returns likely to be achieved by the various asset classes over the next five years.

In recognition of these factors, the following allocation is deemed appropriate for the fund:

Large Cap Domestic Equity	23%
Small Cap Domestic Equity	12%
International Equity	15%
Fixed Income	39%
Inflation Protected Assets	10%
Cash Equivalents	1%

Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy.

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. All assets will be held in custody by the State Investment Board's master custodian or such other custodians as are acceptable to the State Investment Board.
- d. No funds shall be borrowed.

- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

The SIB must have a system of internal controls to prevent losses of public funds arising from fraud or employee error. The controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of transactions, and established criteria for broker relationships. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation and Review

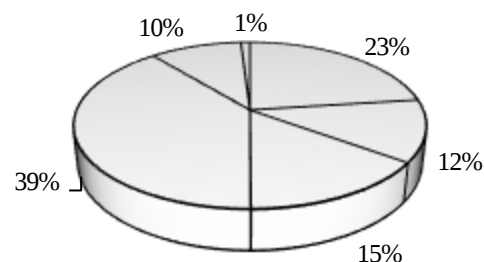
Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Evaluation will be conducted quarterly by the SIB through its review of funds participating in the Insurance Trust.

Money managers will be evaluated by the SIB quarterly. In-state meetings will be held with the money managers at least annually.

❖ City of Fargo FargoDome Permanent Fund Actual Asset Allocation – June 30, 2018

Asset Allocation	Fair Value	Percent of Total	One Year Return (net)
Domestic Large Cap Equity	\$ 10,241,833	23%	13.85%
Domestic Small Cap Equity	5,364,249	12%	17.09%
International Equity	6,682,593	15%	9.96%
Fixed Income	17,423,687	39%	0.94%
Diversified Real Assets	4,473,423	10%	5.57%
Cash Equivalents	443,504	1%	1.20%
Total Fund	<u>\$ 44,629,289</u>		7.64%
Policy Benchmark			6.54%

Columns may not foot due to rounding.



ND STATE BOARD OF MEDICINE FUND

❖ND State Board of Medicine Fund Investment Objectives and Policy Guidelines

Plan Characteristics and Fund Constraints

The North Dakota State Board of Medicine (the Board) was established in 1890 to protect the citizens of the state by regulating the practice of medicine. The Board licenses physicians, physician assistants, genetic counselors and fluoroscopy technicians and disciplines them if they violate the state's medical practice act. The North Dakota State Board of Medicine is governed by NDCC Chapter 43-17.

The North Dakota State Board of Medicine Fund (the Fund) is an unrestricted operating reserve set aside to provide a margin of safety and stability in the Board's operating activities, and provide flexibility to pursue capital projects as needed.

Fund Goals

The investment objectives of the Fund reflect a low risk tolerance and short-term liquidity needs. Operating considerations shape the Fund's policies and priorities as outlined below:

Objective #1: Investment income is needed as a funding source. This will be achieved through a diversified portfolio of high quality fixed income, equities and real estate.

Objective #2: Growth of capital is needed to preserve the real purchasing power of Fund assets. Capital growth is sought through investment in equities and/or equity substitutes.

Objective #3: Sufficient liquidity will be maintained to meet known or anticipated financial obligations. Cash equivalent investments shall be used to achieve this objective.

Responsibilities and Discretion of the State Investment Board (SIB)

The Board has entered into a contract with the SIB for investment services as allowed under NDCC 21-10-06. The Board is responsible for establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and investing the assets of the Fund in the manner provided in NDCC 21-10-07, the prudent investor rule. Under this rule, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. The Fund must be invested exclusively for the benefit of the members and their beneficiaries in accordance with this investment policy.

Management responsibility for the investment program not assigned to the SIB in Chapter 21-10 of the North Dakota Century Code (NDCC) is hereby delegated to the SIB, who must establish written policies for the operation of the investment program, consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and the objectives of the funds participating in the pools.

The SIB is responsible for establishing criteria, procedures, and making decisions with respect to hiring, keeping, and terminating money managers. SIB investment responsibility also includes selecting performance measurement services, consultants, report formats, and frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

The Board's risk tolerance with respect to the management of the Fund's asset is low. The Board is unwilling to undertake investment strategies that might jeopardize the ability of the Fund to maintain principal value over time.

Investment Objectives

The Board's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB.

1. The fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
2. The fund's risk, measured by the standard deviation of net returns, should not exceed 115% of the policy benchmark over a minimum evaluation period of five years.
3. The risk-adjusted performance of the fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

Asset allocation policy is critical because it defines the basic risk and return characteristics of the investment portfolio. Asset allocation targets are established using an asset allocation analysis designed to assist the Board in determining an acceptable volatility target for the fund and an optimal asset allocation policy mix. This analysis estimates the potential impact of various asset class mixes on key measures of total Fund risk.

After consideration of all the inputs and a discussion concerning risk tolerance, the Board approves the appropriate policy asset mix for the Fund.

Large Cap Domestic Equity	11%
Small Cap Domestic Equity	3%
International Equity	7%
Fixed Income	12%
Real Estate	2%
Short-term Fixed Income	65%

While the Board recognizes fluctuations in market values will lead to short-term deviations from policy targets, the Board does not intend to engage in tactical asset allocation. Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy, but not less than annually.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction shall be made which threatens the tax exempt status of the Fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Board's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for investment manager selection and monitoring. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation and Review

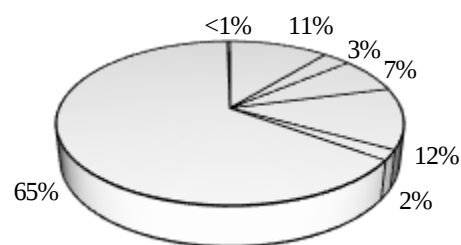
Investment management of the Fund will be evaluated against the Fund's investment objectives. Emphasis will be placed on five year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

Performance reports will be provided to the BCEPP Board periodically, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including, but not limited to:

1. A list of the advisory services managing investments for the SIB.
2. A list of investments at market value, compared to previous reporting period, of each account managed by each advisory service.
3. Earnings, percentage earned, and change in market value of each account's investments.
4. Comparison of the performance of each account managed by each advisory service to other accounts under the SIB's control and to generally accepted market indicators.
5. All material legal or legislative proceedings affecting the SIB.
6. Compliance with this investment policy statement.

❖ **ND State Board of Medicine Fund**
Actual Asset Allocation – June 30, 2018

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Domestic Large Cap Equity	\$ 247,155	11%	13.85%
Domestic Small Cap Equity	67,745	3%	17.09%
International Equity	157,428	7%	9.96%
Fixed Income	270,557	12%	0.96%
Real Estate	45,350	2%	7.31%
Short-Term Fixed Income	1,456,719	65%	0.30%
Cash Equivalents	6,163	<1%	1.20%
Total Fund	\$ 2,251,117		3.12%
Policy Benchmark			2.80%



Columns may not foot due to rounding.

LEWIS & CLARK INTERPRETIVE CENTER ENDOWMENT FUND

❖ Lewis & Clark Interpretive Center Endowment Investment Objectives and Policy Guidelines

Fund Characteristics and Constraints

The Lewis & Clark Interpretive Center Endowment Fund (Fund) was created in 2003 exclusively for the maintenance, repair and upkeep of the ND Lewis & Clark Interpretive Center/Rest Area, for programming and facility improvements. The original principal was endowed to the North Dakota Lewis & Clark Bicentennial Foundation who transferred the funds to the North Dakota Parks and Recreation Department (Parks and Rec) in 2017.

Fund Goals

It is the intention of Parks and Rec to utilize the earnings of the Fund to supplement its biennial appropriation for the maintenance of the Lewis & Clark Interpretive Center.

Responsibilities and Discretion of the State Investment Board (SIB)

Parks and Rec has entered into a contract with the SIB for investment services as allowed under 21-10-06. Parks and Rec is responsible for establishing policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in a manner provided in NDCC 21-10-07, the prudent investor rule. Under this rule, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probably safety of capital as well as probable income.

Management responsibility for the investment program not assigned to the SIB in NDCC Chapter 21-10 is hereby delegated to the SIB, which must establish written policies for the operation of the investment program consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. When a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

The SIB is responsible for establishing criteria and procedures and making decisions with respect to hiring, maintaining, and terminating money managers. SIB investment responsibility includes selecting performance measurement services, consultants, report formats and frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

Parks and Rec is unwilling to undertake investment strategies that might jeopardize the ability of the Fund to maintain principal value over the long-term.

Investment Objectives

Parks and Rec's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB:

- a. The Fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
- b. Risk, as measured by annual standard deviation of net returns for the Fund, should not exceed that of the policy benchmark by more than 100 basis points over a minimum evaluation period of five years.
- c. The risk-adjusted performance of the Fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

Asset allocation policy is critical because it defines the basic risk and return characteristics of the investment portfolio. Asset allocation targets are established using an asset-liability analysis designed to assist Parks and Rec in determining an acceptable volatility target for the Fund and an optimal asset allocation policy mix. This analysis estimates the potential impact of various asset class mixes on key measures of total fund risk.

After consideration of all the inputs and discussion of its own collective risk tolerance, Parks and Rec approves the appropriate policy asset mix for the Fund.

Global Equity	35%
Global Fixed Income	64%
Cash Equivalents	1%

While Parks and Rec recognizes fluctuations in market values will lead to short-term deviations from policy targets, Parks and Rec does not intend to engage in tactical asset allocation. Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy, but not less than annually.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction may be made that would threaten the tax-exempt status of the Fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for investment manager selection and monitoring. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions, and compliance with the investment policy.

Evaluation and Review

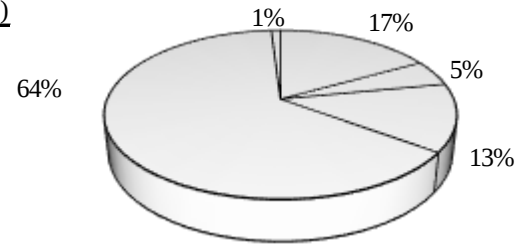
Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards. Emphasis will be placed on five year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

Performance reports will be provided to Parks and Rec quarterly and investment performance presentations will be provided to Parks and Rec upon request, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the Fund, including but not limited to:

1. A list of advisory services managing investments for Parks and Rec.
2. A list of investments at market value, compared to the previous reporting period, of each fund managed by each advisory service.
3. Earnings, percentage earned, and change in market value of each fund's investments.
4. Comparison of the performance of each fund managed by each advisory service to other funds under the Board's control and to generally accepted market indicators.
5. All material legal or legislative proceedings affecting the SIB.
6. Compliance with this investment policy statement.

❖ **Lewis & Clark Interpretive Center Endowment**
Actual Asset Allocation – June 30, 2018

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Domestic Large Cap Equity	\$ 119,350	17%	*
Domestic Small Cap Equity	35,228	5%	*
International Equity	91,307	13%	*
Fixed Income	450,341	64%	*
Cash Equivalents	7,059	1%	*
Total Fund	<u>\$ 703,285</u>		*
Policy Benchmark			



Columns may not foot due to rounding.

NORTH DAKOTA LEGACY FUND

❖ND Legacy Fund

Investment Objectives and Policy Guidelines

Plan Characteristics and Fund Constraints

The North Dakota Legacy Fund was created in 2010 when the voters of North Dakota approved a constitutional amendment-now Article X, Section 26, of the Constitution of North Dakota-to provide that 30 percent of oil and gas gross production and oil extraction taxes on oil and gas produced after June 30, 2011, be transferred to the Legacy Fund. The principal and earnings of the Legacy Fund may not be spent until after June 30, 2017, and any expenditure of principal after that date requires a vote of at least two-thirds of the members elected to each house of the Legislative Assembly. Not more than 15 percent of the principal of the Legacy Fund may be spent during a biennium. The Legislative Assembly may transfer funds from any source to the Legacy Fund and such transfers become part of the principal of the Fund. The State Investment Board (SIB) is responsible for investment of the principal of the Legacy Fund. Interest earnings accruing after June 30, 2017, are transferred to the general fund at the end of each biennium. Section 21-10-11 provides that the goal of investment for the Legacy Fund is principal preservation while maximizing total return.

Fund Mission

The Legacy Fund (Fund) was created, in part, due to the recognition that state revenue from the oil and gas industry will be derived over a finite timeframe. The Legacy Fund defers the recognition of 30 percent of this revenue for the benefit of future generations. The primary mission of the Legacy Fund is to preserve the real, inflation-adjusted purchasing power of the monies deposited into the Fund while maximizing total return.

Responsibilities and Discretion of the State Investment Board (SIB)

The Legacy and Budget Stabilization Fund Advisory Board (Advisory Board) is charged by law under NDCC 21-10-11 with the responsibility of recommending policies on investment goals and asset allocation of the Fund. The SIB is charged with implementing these policies and asset allocation and investing the assets of the Fund in the manner provided in NDCC 21-10-07, the prudent institutional investor rule. The fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income.

Management responsibility for the investment program not assigned to the SIB in Chapter 21-10 of the North Dakota Century Code (NDCC) is hereby delegated to the SIB, which must establish written policies for the operation of the investment program, consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers, which are also required to employ investment strategies consistent with the investment policy. Where a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory not advisory.

At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and the objectives of the funds participating in the pool.

The SIB is responsible for establishing criteria, procedures, and making decisions with respect to hiring, retaining, and terminating money managers. SIB investment responsibility also includes selecting performance measurement services, consultants, report formats, and frequency of meetings with managers.

The SIB shall notify the Advisory Board within 30 days of any substantial or notable changes in money managers; performance measurement services; and consultants, including hiring or terminating a money manager, performance measurement service, or a consultant.

The SIB, after consultation with the Advisory Board, will implement necessary changes to this policy in an efficient and prudent manner.

Risk Tolerance

The Advisory Board's risk tolerance with respect to the primary aspect of the Fund's mission is low. The Board is unwilling to undertake investment strategies that might jeopardize the ability of the Fund to maintain principal value over time. The Board recognizes that the plan will evolve as the Legacy Fund matures and economic conditions and opportunities change.

Investment Objectives

The Advisory Board's investment objectives are expressed in terms of reward and risk expectations relative to investable, passive benchmarks. The Legacy Fund's policy benchmark is comprised of policy mix weights of appropriate asset class benchmarks as set by the SIB.

- a. The Legacy Fund’s rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.
- b. The Legacy Fund’s risk, measured by the standard deviation of net returns, should not exceed 115% of the policy benchmark over a minimum evaluation period of five years.
- c. The risk-adjusted performance of the Legacy Fund, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

Policy Asset Mix

After consideration of all the inputs and a discussion of its own collective risk tolerance, the Advisory Board approved the following policy asset mix for the Legacy Fund as of April 2, 2013:

Asset Class	Policy Target Percentage
Broad US Equity	30%
Broad International Equity	20%
Fixed Income	35%
Core Real Estate	5%
Diversified Real Assets	10%

Rebalancing of the Fund to this target will be done in accordance with the SIB’s rebalancing policy, but not less than annually. The SIB approved an 18-month implementation strategy which completed in January 2015. On June 17, 2017, the Advisory Board acknowledged the transfer of the Bank of North Dakota Match Loan Certificates of Deposit Program (“BND CD”) to the Legacy Fund in early-2017. The BND CD investment will be limited to the lesser of \$200 million or 5% of the Legacy Fund (and represent a sector allocation within fixed income). The Advisory Board approved this future change in the Legacy Fund’s asset allocation without exception. BND will be requested to guarantee a minimum 1.75% investment return. The minimum return requirement will be periodically reviewed in connection with the Legacy Fund’s overall asset allocation framework. BND CD’s are rated AA by S&P.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Legacy Fund’s assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivative use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction may be made that would threaten the tax-exempt status of the Legacy Fund.
- d. All assets will be held in custody by the SIB’s master custodian or such other custodians as are acceptable to the SIB.

- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

For the purpose of this document, Social Investing is defined as *“The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries.”*

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Fund’s policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for broker relationships. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions, and compliance with the investment policy.

Evaluation and Review

Investment management of the Legacy Fund will be evaluated against the Fund's investment objectives and investment performance standards. Emphasis will be placed on 5-year and 10-year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the investment policy statement for achieving those objectives.

Performance reports will be provided to the Board periodically, but not less than quarterly. Such reports will include asset returns and allocation data. Additionally, not less than annually, reports will include information regarding all significant and/or material matters and changes pertaining to the investment of the Legacy Fund, including:

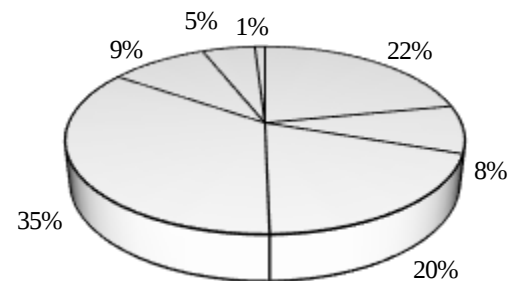
- Changes in asset class portfolio structures, tactical approaches, and market values.

- Loss of principal, if any.
- Management costs associated with various types of investments.
- All material legal or legislative proceedings affecting the SIB.
- Compliance with this investment policy statement.
- An evaluation of the national economic climate.
- A forecast of the expected economic opportunities and dangers.
- Management of risk by the SIB.

In addition to the quarterly evaluation and review process, the SIB shall notify the Board within 30 days of any substantial or notable deviation from the normal management of the Legacy Fund, including any anomalies, notable losses, gains, or liquidation of assets affecting the fund.

❖ND Legacy Fund**Actual Asset Allocation – June 30, 2018**

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Domestic Large Cap Equity	\$ 1,224,496,687	22%	14.14%
Domestic Small Cap Equity	460,559,368	8%	17.22%
International Equity	1,086,275,103	20%	9.79%
Fixed Income	1,941,289,017	35%	1.12%
Diversified Real Assets	526,559,252	9%	4.41%
Real Estate	283,299,479	5%	7.31%
Cash Equivalents	54,840,207	1%	1.21%
Total Fund	<u>\$ 5,577,319,113</u>		7.57%
Policy Benchmark			6.51%



Columns may not foot due to rounding.

RETIREMENT PLAN FOR EMPLOYEES OF JOB SERVICE NORTH DAKOTA

❖ Job Service ND

Investment Objectives and Policy Guidelines

Plan Characteristics and Fund Constraints

The Retirement Plan for the Employees of Job Service North Dakota (Plan) is a defined benefit retirement plan for the eligible employees hired before October 1, 1980. There have been no new entrants to the plan since October 1, 1980. The plan provides retirement benefits, disability benefits and survivor benefits consistent with the written Plan document. Until October 1, 1993, annuities were purchased from the Travelers for retirees, since that date retiree benefits are paid from Plan assets. Annual cost of living adjustments for all Plan pensioners including annuitants with the Travelers are paid from Plan assets. The NDPERS Board (the Board) is the Plan Administrator and administers the Plan in accord with Chapter 52-11 of the North Dakota Century Code.

Job Service North Dakota as the employer contributes 4% of the active participant's salary as a contribution 'on behalf of the employee' and the active participants pay 3% of their salary into Plan assets.

Each year the Plan has an actuarial valuation performed. The current actuarial assumed rate of return on assets is 6.5%.

Responsibilities and Discretion of the State Investment Board

Aggregate plan contributions plus earnings, minus allowable expenses constitute the Fund. The Board is charged by NDCC chapters 54-52, 21-10-01, and 39-03.1 to establish policies for the investment goals and asset allocation of the Fund. The State Investment Board (SIB) is charged with implementing the asset allocation as promptly and prudently as possible in accordance with the Board's policies by investing the assets of the Fund in the manner provided in the prudent investor rule, which provides:

Fund fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. The retirement funds belonging to the teachers' fund for retirement and the public employees retirement system must be invested exclusively for the benefit of their members and in accordance with the respective funds' investment goals and objectives. (NDCC 21-10-07)

The SIB may delegate investment responsibility of the Fund or any portion of the Fund to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy is supervisory not advisory.

The SIB may at its discretion, pool the assets of the Fund with another fund or funds having similar investment objectives and time horizons in order to maximize returns and minimize costs. In pooling fund assets, the SIB will establish asset class pools it deems necessary to achieve the specific quality, diversification, restrictions, and performance objectives subject to the prudent investor rule and the objectives of the funds participating in the pools.

The SIB is responsible for establishing the selection criteria, determining the performance measures, and retaining all fund money managers. SIB is also responsible for the selection and retention of any investment consultants that may be employed in the investment of the Fund assets.

Delegation of Authority

Management responsibility for NDPERS funds not assigned to the North Dakota State Investment Board (SIB) in Chapter 21-10 of the North Dakota Century Code (NDCC) is hereby delegated to the SIB, who must establish written policies and procedures for the operation of the NDPERS funds, consistent with this investment policy.

Such procedures must provide for:

1. The definition and assignment of duties and responsibilities to advisory services and persons employed by the SIB pursuant to NDCC 21-10-02.1(1)(a).
2. Investment diversification, investment quality, qualification of money managers, and amounts to be invested by money managers pursuant to NDCC 21-10-02.1(1)(e). In developing these policies it is understood:
 - a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
 - b. The use of derivatives will be monitored to ensure that undue risks are not taken by the money managers.
 - c. All assets must be held in custody by the SIB's master custodian or such other custodians as are selected by the SIB.

3. Guidelines for the selection and redemption of investments will be in accordance with NDCC 21-10-02.1(1)(d).
4. The criteria for making decisions with respect to hiring, retention, and termination of money managers will be clearly defined. This also includes selecting performance measurement standards, consultants, report formats, and frequency of meetings with money managers.

All participants in the investment process must seek to act responsibly as custodians of the public trust.

Investment Goals

The investment objectives of the Plan have been established by the Plan's Administrator upon consideration of its strategic objectives and a comprehensive review of current and projected financial requirements.

Objective #1: To maintain a level of surplus sufficient to eliminate the need for future contributions;

Objective #2: To achieve a rate of return which exceeds the rate of inflation, as measured by the Consumer Price Index (CPI), by 3.0 percentage points per year (based on current actuarial assumptions of 5.7% return and 2.5% inflation), over a complete market cycle; and

Objective #3: As a secondary objective, to maximize the Plan's surplus to increase future benefit payments.

Investment Performance Objective

The NDPERS Board will seek to make investments that generate sufficient return to meet the goals outlined in this policy. The objectives established in this section are in accordance with the fiduciary requirement in federal and state law.

It is in the best interest of NDPERS and its beneficiaries that performance objectives be established for the total Fund. It is clearly understood these objectives are to be viewed over the long term and have been established after full consideration of all factors set forth in this Statement of Investment Goals, Objectives and Policies.

- a. The funds rate of return, over the long term should equal that of the policy portfolio which is comprised of policy weights of appropriate asset class benchmarks as set by the SIB.
- b. The annual standard deviation of total returns for the Fund should not exceed that of the policy portfolio by more than 15%.
- c. Over 5-year and longer periods the fund should match or exceed the expected rate of return projected in the

most recent asset/liability study without exceeding the expected risk for the period as measured by standard deviation by more than 15%.

Asset Allocation

The NDPERS Board as plan Administrator establishes the asset allocation of the Fund, with input from consultants and SIB staff. The current asset allocation is based upon the asset/liability study completed by SEI Consultants in 2017. That study provided an appraisal of current cash flow projections and estimates of the investment returns likely to be achieved by the various asset classes.

In recognition of the Plan's objectives, projected financial status, and capital market expectations, the following asset allocation options were deemed appropriate for the Fund:

Domestic Equity	18%
Global Equity	12%
US High Yield Bonds	3%
Emerging Markets Debt	3%
Core Fixed Income	23%
Limited Duration Fixed Income	22%
Diversified Short Term Fixed Income	12%
Short Term Corporate Fixed Income	7%

Rebalancing of the Fund to this target allocation will be done in accordance with the SIB's rebalancing policy, but not less than annually.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the Fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivatives use will be monitored to ensure that undue risks are not taken by the money managers.
- c. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- d. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

Social investing is defined as *"The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."*

- e. Economically targeted investing is prohibited unless

the investment meets the Exclusive Benefit Rule.

Economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

The Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Plan with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the Plan to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Internal Controls

The SIB must have a system of internal controls to prevent losses of public funds arising from fraud or employee error. The controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for broker

relationships. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards.

An annual performance report must be provided to the Board by the State Investment Officer at a regularly scheduled NDPERS Board meeting. The annual performance report must include asset returns and allocation data as well as information regarding all significant or material matters and changes pertaining to the investment of the Fund, including:

- Changes in asset class portfolio structures, tactical approaches and market values;
- All pertinent legal or legislative proceedings affecting the SIB.
- Compliance with these investment goals, objectives and policies.
- A general market overview and market expectations.
- A review of fund progress and its asset allocation strategy.

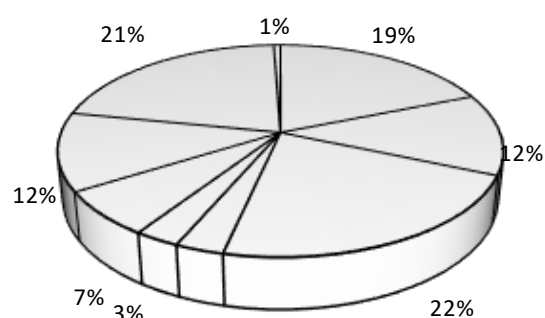
In addition, the State Investment Officer shall review with the Board the procedures and policies established by the SIB relating to this statement of investment goals, objectives, and policies.

❖ Job Service ND

Actual Asset Allocation – June 30, 2018

Asset Allocation	Fair Value	Percent of Total	One Year Return (net)
Domestic Equity	\$ 18,114,765	19%	8.83%
Global Equity	11,923,776	12%	7.70%
Core Fixed Income	21,151,334	22%	-0.17%
High Yield Bonds	2,891,070	3%	4.04%
Emerging Markets Debt	2,699,441	3%	-1.99%
Short Term Corporate Fixed Income	6,545,794	7%	1.37%
Diversified Short Term Fixed Income	11,403,398	12%	3.19%
Limited Duration Fixed Income	20,409,568	21%	0.64%
Cash Equivalents	551,324	1%	1.44%
Total Fund	\$ 95,690,470		3.15%
Policy Benchmark			4.17%

Columns may not foot due to rounding.



RETIREE HEALTH INSURANCE CREDIT FUND

❖ Retiree Health Insurance Credit Fund Investment Objectives and Policy Guidelines

Plan Characteristics and Constraints

The North Dakota Public Employees Retirement System (NDPERS) Retiree Health Insurance Credit Fund was established in 1989 to provide for prefunding of premiums for medical coverage to state employees and employees of participating political subdivisions in accordance with Chapter 54-52.1 of the North Dakota Century Code. The plan is administered by a seven member Board of Trustees (the Board). The Chair is appointed by the governor, three members are elected by the active members of the plans, one member is elected by the retired members, one is appointed by the Attorney General and the seventh member is the State Health Officer or their designee.

The NDPERS plan is a defined benefit program that provides for a partial payment of a retiree's medical insurance premium based on the number of years of service.

Funding for the NDPERS plan is provided by a monthly employer contribution of 1.14 percent of payroll. On a monthly basis, benefit payments are netted out against contributions and the balance forwarded to the trust's custodian for investment.

Each year the NDPERS Board has an actuarial valuation performed. The current actuarial assumed rate of return on assets for the plan is 7.5%.

Responsibilities and Discretion of the State Investment Board (SIB)

Aggregate plan contributions plus earnings, minus allowable expenses constitute the Fund. The Board is charged by NDCC chapters 54-52, 21-10-02 and 39-03.1 to establish policies for the investment goals and asset allocation of the Fund. The State Investment Board (SIB) is charged with implementing the asset allocation as promptly and prudently as possible in accordance with Board's policies by investing the assets of the Fund in the manner provided in the prudent investor rule, which provides:

Fund fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. The retirement funds belonging to the teachers' fund for retirement and the public employees retirement system must be invested exclusively for the benefit of their members and in accordance with the respective funds' investment goals and objectives. (NDCC 21-10-07)

The SIB may delegate investment responsibility of the Fund or any portion of the Fund to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy is supervisory not advisory.

The SIB may at its discretion, pool the assets of the Fund with another fund or funds having similar investment objectives and time horizons in order to maximize returns and minimize costs. In pooling fund assets, the SIB will establish asset class pools it deems necessary to achieve the specific quality, diversification, restrictions, and performance objectives subject to the prudent investor rule and the objectives of the funds participating in the pools.

The SIB is responsible for establishing the selection criteria, determining the performance measures, and retaining all fund money managers. SIB is also responsible for the selection and retention of any investment consultants that may be employed in the investment of the Fund assets.

Delegation of Authority

Management responsibility for NDPERS funds not assigned to the North Dakota State Investment Board (SIB) in Chapter 21-10 of the North Dakota Century Code (NDCC) is hereby delegated to the SIB, which must establish written policies and procedures for the operation of the NDPERS funds, consistent with this investment policy.

Such procedures must provide for:

1. The definition and assignment of duties and responsibilities to advisory services and persons employed by the SIB pursuant to NDCC 21-10-02.1(1) (a).
2. Investment diversification, investment quality, qualification of money managers, and amounts to be invested by money managers pursuant to NDCC 21-10-02.1(1)(e). In developing these policies it is understood:
 - a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
 - b. The use of derivatives will be monitored to ensure that undue risks are not taken by the money managers.
 - c. All assets must be held in custody by the SIB's master custodian or such other custodians as are selected by the SIB.
3. Guidelines for the selection and redemption of investments will be in accordance with NDCC 21-10-02.1(1) (d).

4. The criteria for making decisions with respect to hiring, retention, and termination of money managers will be clearly defined. This also includes selecting performance measurement standards, consultants, report formats, and frequency of meetings with money managers.

All participants in the investment process must seek to act responsibly as custodians of the public trust.

Investment Goals

The investment goals of the Fund have been established by the NDPERS Board based upon consideration of the Board's strategic objectives and a comprehensive review of the current and projected financial requirements. These goals are to be viewed over the long term.

- Goal #1 Accumulate sufficient wealth through a diversified portfolio of investments which will enable the State of North Dakota to pay all current and future retirement benefits and expense obligations of the Fund.
- Goal #2 To obtain an investment return in excess of that needed to allow for increases in a retiree's credit to maintain the purchasing power of their benefit.

Investment Performance Objective

The NDPERS Board will seek to make investments that generate sufficient return to meet the goals outlined in this policy. The objectives established in this section are in accordance with the fiduciary requirement in federal and state law.

It is in the best interest of NDPERS and its beneficiaries that performance objectives be established for the total Fund. It is clearly understood these objectives are to be viewed over the long term and have been established after full consideration of all factors set forth in this Statement of Investment Goals, Objectives and Policies.

- a. The Fund's rate of return, over the long term, should equal that of the policy portfolio which is comprised of policy weights of appropriate asset class benchmarks as set by the SIB.
- b. The annual standard deviation of total returns for the Fund should not materially exceed that of the policy portfolio.
- c. Over 5-year and longer periods the Fund should match or exceed the expected rate of return projected in the most recent asset/liability study without exceeding the expected risk for the period as measured by standard deviation.

Asset Allocation

In recognition of the plan's performance objectives, benefit projections, and capital market expectations, the NDPERS Board has established the following asset allocation:

Date of Last Asset Allocation Study: NDPERS Board Approved February 2018 – SEI Corporation

Domestic Large Cap	33%
Domestic Small Cap	6%
International Equities	21%
Core Plus Fixed Income	40%
Expected Return	8.1%
Standard Deviation of Returns	13.3%

Rebalancing of the Fund to this target will be done in accordance with the SIB's rebalancing policy, but not less than annually.

PERS requires that in implementing this asset allocation that the State Investment Board seek to maximize return within the scope of these policies while limiting investment costs.

Restrictions

- A. No transaction may be made which threatens the tax exempt status of the Fund.
- B. Social investing is prohibited unless it meets the Exclusive Benefit Rule and it can be substantiated that the investment must provide an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- C. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

Social Investing is defined as "The investment or commitment of public pension fund money for the purpose of obtaining an effect other than a maximized return to the intended beneficiaries."

Economically targeted investing is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

The Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.

- (3) Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Board's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

The SIB must have a system of internal controls to prevent losses of public funds arising from fraud or employee error. The controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for broker relationships. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation

Investment management of the Fund will be evaluated against the Fund's investment objectives and investment performance standards.

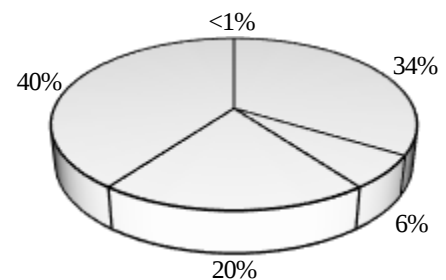
An annual performance report must be provided to the Board by the State Investment Officer at a regularly scheduled NDPERS Board meeting. The annual performance report must include asset returns and allocation data as well as information regarding all significant or material matters and changes pertaining to the investment of the Fund, including:

- Changes in asset class portfolio structures, tactical approaches and market values;
- All pertinent legal or legislative proceedings affecting the SIB;
- Compliance with these investment goals, objectives and policies;
- A general market overview and market expectations;
- A review of fund progress and its asset allocation strategy;
- A report on investment fees and the SIB's effort relating to Section 6. To measure investment cost PERS requires as part of the annual review information from CEM or other acceptable source showing the value added versus the cost.

❖ **Retiree Health Insurance Credit Fund** **Actual Asset Allocation – June 30, 2018**

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Domestic Large Cap Equity	\$ 42,542,450	34%	14.11%
Domestic Small Cap Equity	7,980,966	6%	14.42%
International Equity	25,558,379	20%	8.83%
Core Plus Fixed Income	50,509,228	40%	0.10%
Cash Equivalents	14,182	<1%	1.20%
Total Fund	<u>\$ 126,605,205</u>		7.15%
Policy Benchmark			7.18%

Columns may not foot due to rounding.



TOBACCO PREVENTION AND CONTROL FUND

❖ Tobacco Prevention and Control Fund Investment Objectives and Policy Guidelines

Plan Characteristics and Constraints

The North Dakota Tobacco Prevention and Control fund (fund) was established in 1999 for the purpose of creating and implementing a comprehensive statewide tobacco prevention and control plan (comprehensive plan). NDCC 54-27-25(2). The comprehensive plan is administered by the Executive Committee and is to be consistent with the centers for disease control best practices for comprehensive tobacco prevention and control programs. NDCC 23-42-01. The Executive Committee has the power and duty to provide direction to the state investment board for investment of the fund. NDCC 23-42-04(1).

Fund Goals

The fund consists of the tobacco settlement dollars obtained by the state under section IX(c)(2) of the agreement adopted by the east central judicial district court in its judgment entered December 28, 1998 [Civil No. 98-3778] in State of North Dakota, ex rel. Heidi Heitkamp v. Philip Morris, Inc. Interest earned on the fund must be credited to the fund. NDCC 54-27-25(2). The fund Executive Committee recognizes that a sound investment program is essential to meet the goals of the comprehensive plan. As a result, the fund goal is to protect and sustain the fund in order to implement the comprehensive plan.

Responsibilities and Discretion of the State Investment Board (SIB)

The Executive Committee has entered into a contract with the SIB for investment services as allowed under NDCC 21-10-06. The Executive Committee is charged by law under NDCC 23-42-04 with the responsibility of providing direction to the state investment board for investment of the fund. The SIB is charged with implementing these policies and investing the assets of the fund in the manner provided in NDCC 21-10-07, the prudent investor rule. Under this rule, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. The fund must be invested exclusively for the benefit of the members and their beneficiaries in accordance with this investment policy.

Management responsibility for the investment program not assigned to the SIB in Chapter 21-10 of the North Dakota Century Code (NDCC) is hereby delegated to the SIB, who must establish written policies for the operation of the investment program, consistent with this investment policy.

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.

The SIB is responsible for establishing criteria, procedures, and making decisions with respect to hiring, keeping, and terminating money managers. SIB investment responsibility also includes selecting performance measurement services, consultants, report formats, and frequency of meetings with managers.

The SIB will implement changes to this policy as promptly as is prudent.

Risk Tolerance

The Executive Committee is unwilling to undertake investment strategies that might jeopardize the ability of the fund to finance the comprehensive plan.

The Executive Committee actively seeks to sustain the fund by taking on risk for which it expects to be compensated over the long term. The Executive Committee understands that a prudent investment approach to risk taking can result in periods of under-performance for the fund in which the funding status may decline. The Executive Committee believes that such an approach, prudently implemented, best serves the long-run interests of the State.

Policy Asset Mix

Asset allocation policy is critical because it defines the basic risk and return characteristics of the investment portfolio. Asset allocation targets are established using an asset-liability analysis designed to assist the Executive Committee in determining an acceptable volatility target for the fund and an optimal asset allocation policy mix. This analysis estimates the potential impact of various asset class mixes on key measures of total fund risk.

After consideration of all the inputs and a discussion of its own collective risk tolerance, the Executive Committee approves the appropriate policy asset mix for the fund.

<u>Asset Class</u>	<u>Policy Target</u>	<u>Rebalancing Range</u>
Global Equity	10%	5-20%
Global Fixed Income	75%	60-90%
Cash	15%	10-20%

While the Executive Committee recognizes fluctuations in market values will lead to short-term deviations from policy targets, the Executive Committee does not intend to engage in tactical asset allocation. Rebalancing of the fund to this target will be done in accordance with the SIB's rebalancing policy, but not less than annually.

Restrictions

While the SIB is responsible for establishing specific quality, diversification, restrictions, and performance objectives for the investment vehicles in which the fund's assets will be invested, it is understood that:

- a. Futures and options may be used to hedge or replicate underlying index exposure, but not for speculation.
- b. Derivatives use will be monitored to ensure that undue risks are not taken by the money managers.
- c. No transaction shall be made which threatens the tax exempt status of the fund.
- d. All assets will be held in custody by the SIB's master custodian or such other custodians as are acceptable to the SIB.
- e. No unhedged short sales or speculative margin purchases shall be made.
- f. Because the statutory purpose of the Executive Committee is to reinforce best practices related to comprehensive tobacco prevention and control programs, and to invest in or profit from the manufacturer and sale of tobacco products would contradict that purpose, the assets shall only be invested in securities issued by tobacco-free firms, defined as those which generate revenues of no greater than 0% from tobacco products. In the event of an inadvertent de minimis investment in a firm with any exposure to tobacco products, the inadvertent investment will be immediately divested upon discovery.

For investment purposes "tobacco product" means tobacco or any product containing, made from, or derived from tobacco, in whole or in part, that is intended for human consumption, whether chewed, smoked, absorbed, dissolved, inhaled, snorted, sniffed, consumed, or ingested by any other means, including cigarettes, cigars, electronic smoking devices, pipe tobacco, chewing tobacco, snuff, snus, liquid, or other kinds and forms of tobacco. "Tobacco product" includes any product or device that contains nicotine, in any form, that is derived from tobacco. Any product that contains nicotine shall be presumed to contain nicotine derived from tobacco unless the nicotine is confirmed to be derived from a different source.

- g. Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

For the purpose of this document economically targeted investment is defined as an investment designed to produce a competitive rate of return commensurate with risk involved, as well as to create collateral economic benefits for a targeted geographic area, group of people, or sector of the economy.

Also, for the purpose of this document, the Exclusive Benefit Rule is met if the following four conditions are satisfied:

- (1) The cost does not exceed the fair market value at the time of investment.
- (2) The investment provides the fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar risk.
- (3) Sufficient liquidity is maintained in the fund to permit distributions in accordance with the terms of the plan.
- (4) The safeguards and diversity that a prudent investor would adhere to are present.

Where investment characteristics, including yield, risk, and liquidity are equivalent, the Executive Committee's policy favors investments which will have a positive impact on the economy of North Dakota.

Internal Controls

A system of internal controls must be in place by the SIB to prevent losses of public funds arising from fraud or employee error. Such controls deemed most important are the separation of responsibilities for investment purchases from the recording of investment activity, custodial safekeeping, written confirmation of investment transactions, and established criteria for broker relationships. The annual financial audit must include a comprehensive review of the portfolio, accounting procedures for security transactions and compliance with the investment policy.

Evaluation and Review

Investment management of the fund will be evaluated against the fund's investment objectives. Emphasis will be placed on five year results. Evaluation should include an assessment of the continued feasibility of achieving the investment objectives and the appropriateness of the Investment Policy Statement for achieving those objectives.

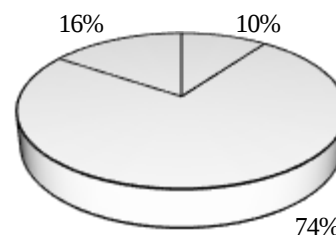
Performance reports will be provided to the Executive Committee quarterly and investment performance presentations will be provided to the Executive Committee upon request, but not less than annually. Such reports will include asset returns and allocation data as well as information regarding all significant and/or material matters and changes pertaining to the investment of the fund, including, but not limited to:

1. A list of the advisory services managing investments for the Executive Committee.
2. A list of investments at market value, compared to previous reporting period, of each fund managed by each advisory service.

3. Earnings, percentage earned, and change in market value of each fund's investments.
4. Comparison of the performance of each fund managed by each advisory service to other funds under the Executive Committee's control and to generally accepted market indicators.
5. All material legal or legislative proceedings affecting the SIB.
6. Compliance with this investment policy statement.

❖ **Tobacco Prevention and Control Fund**
Actual Asset Allocation – June 30, 2018

<u>Asset Allocation</u>	<u>Fair Value</u>	<u>Percent of Total</u>	<u>One Year Return (net)</u>
Domestic Large Cap Equity	\$ 5,462,162	10%	14.91%
Short-Term Fixed Income	40,386,152	74%	-0.03%
Cash Equivalents	8,516,848	16%	1.20%
Total Fund	<u>\$ 54,365,162</u>		1.63%
Policy Benchmark			1.68%



Columns may not foot due to rounding.



ACTUARIAL SECTION



101 North Wacker Drive Suite 500 Chicago, IL 60606-1724
T 312.984.8500 www.segalco.com

October 17, 2018

Board of Trustees
North Dakota Teachers' Fund for Retirement
3442 East Century Avenue
Bismarck, ND 58507-7100

Re: Actuarial Valuation as of July 1, 2018

Dear Trustees:

We certify that the information contained in this report is accurate and fairly presents the actuarial position of the North Dakota Teachers' Fund for Retirement (TFFR) as of July 1, 2018.

All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion the results presented also comply with the State Code, and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board (GASB). The undersigned are independent actuaries. Both are Fellows of the Society of Actuaries, Enrolled Actuaries, and Members of the American Academy of Actuaries, and both are experienced in performing valuations for large public retirement systems. They both meet the Qualification Standards of the American Academy of Actuaries.

ACTUARIAL VALUATION

The primary purposes of the valuation report are to determine the adequacy of the current employer contribution rate, to describe the current financial condition of TFFR, and to analyze changes in TFFR's financial condition. In addition, the report provides information required by TFFR in connection with the Governmental Accounting Standards Board Statement No. 67 (GASB 67) and it provides various summaries of the data. Valuations are prepared annually, as of July 1 of each year, the first day of TFFR's plan and fiscal year.

FINANCING OBJECTIVES

The member and employer contribution rates are established by statute. Member and employer rates are 11.75% and 12.75%, respectively. The 11.75% member contribution rate and 12.75% employer contribution rate will remain in effect until TFFR is 100% funded on an actuarial basis. At that point, the employer and member contribution rates will revert to 7.75%. The rates are intended to be sufficient to pay TFFR's normal cost and to amortize TFFR's unfunded actuarial accrued liability (UAAL) over a period of 25 years beginning July 1, 2018, although at any given time the statutory rates may be insufficient.

Board of Trustees
 North Dakota Teachers' Fund for Retirement
 October 17, 2018
 Page 2

PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVES

In order to determine the adequacy of the 12.75% statutory employer contribution rate, it is compared to the actuarially determined contribution (ADC). The ADC is equal to the sum of (a) the employer normal cost rate and (b) the level percentage of pay required to amortize the UAAL over the 30-year closed period that began July 1, 2013 (25 years remaining as of July 1, 2018). For this calculation, payroll is assumed to increase 3.25% per year. As of July 1, 2018, the ADC is 12.94%, compared to 12.99% last year. This is greater than the 12.75% rate currently required by law. The decrease in ADC is primarily driven by an actuarial gain on assets and demographic experience emerging more favorably than assumed.

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) increased from last year. The funded ratio at July 1, 2017, was 63.7%, while it is 65.4% as of July 1, 2018. Based on the market value of assets rather than the actuarial value of assets, the funded ratio increased to 65.5%, compared to 63.2% last year.

The Plan has a net investment gain of \$4.6 million from previous years that has not yet been recognized in the actuarial value of assets because of the five-year smoothing. This unrecognized asset gain is due to market losses during FY 2015 and FY 2016 offset by market gains in FY 2017 and FY 2018. As these gains are recognized over the next four years, the funded ratio is expected to slightly increase, assuming the plan earns 7.75% in the future.

REPORTING CONSEQUENCES

TFFR is required to disclose certain actuarial information in its Comprehensive Annual Financial Report (CAFR), including the Net Pension Liability (NPL), the sensitivity of the NPL to changes in the discount rate, a schedule of changes in NPL, and a comparison of actual contributions to the ADC. The State and the school districts need to comply with GASB 68, which also requires disclosure of certain actuarial information in their financial statements. This information will be provided in a separate report.

BENEFIT PROVISIONS

The actuarial valuation reflects the benefit and contribution provisions set forth in the North Dakota Century Code. These have not changed from the prior valuation.

ASSUMPTIONS AND METHODS

Actuarial assumptions and methods are set by the Board of Trustees, based upon recommendations made by the Plan's actuary. On April 30, 2015, the Board adopted new assumptions, effective for the July 1, 2015 valuation. In our opinion, the actuarial assumptions as approved by the Board are reasonable, taking into account the experience of the Plan and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience of the Plan. The actuarial assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice.

Effective with the July 1, 2013, actuarial valuation, the Trustees adopted an Actuarial Funding Policy, which provides direction on how to calculate an actuarially determined contribution. The actuarially determined contribution is compared to statutory contribution rates as a measure of funding adequacy.

Board of Trustees
North Dakota Teachers' Fund for Retirement
October 17, 2018
Page 3

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates, and funding periods.

DATA

Member data for retired, active, and inactive participants was supplied as of July 1, 2018, by the staff of the Retirement Office. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data. Asset information was also supplied by the staff. That assistance is gratefully acknowledged.

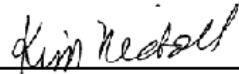
CAFR SCHEDULES

The undersigned provided the following supporting schedules and exhibits included in the Financial, Actuarial and Statistical Sections of the ND Retirement and Investment Office Comprehensive Annual Financial Report:

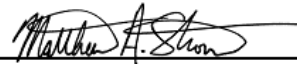
- > Financial / Required Supplementary Information
 - Net Pension Liability
 - Sensitivity of Net Pension Liability
 - Schedules of Changes in Net Pension Liability and Related Ratios
 - Schedule of Employer Contributions
- > Actuarial
 - Schedule of Active Members
 - Analysis of Change in Actuarially Determined Contribution
 - Development of Unfunded Actuarial Accrued Liability
 - Solvency Test
 - Schedule of Funding Progress
- > Statistical
 - Schedule of Retirees by Benefit Amount
 - Schedule of Retirees by Benefit Type

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.



By: Kim Nicholl, FSA, MAAA, EA, FCA
Senior Vice President and Actuary



Matthew A. Strom, FSA, MAAA, EA
Vice President and Actuary

5794900v1/13475.002

SUMMARY OF ACTUARIAL VALUATION RESULTS

	2018	2017
Demographic Data for Plan Year Beginning July 1:		
• Number of		
- Retirees and Beneficiaries	8,743	8,501
- Inactive, Vested	1,623	1,600
- Inactive, Nonvested	971	878
- Active Members	10,881	10,874
• Payroll (annualized)	\$653.5 million	\$650.1 million
Statutory Contributions (% of Payroll) for Plan Year Beginning July 1:		
• Employer	12.75%	12.75%
• Member	11.75%	11.75%
• Actuarially determined contribution rate for year beginning July 1	12.94%	12.99%
• Margin/(Deficit)	-0.19%	-0.24%
Assets:		
• Fair value	\$2,530.7 million	\$2,360.5 million
• Actuarial value	2,526.1 million	2,379.8 million
• Return on market value (per actuary)	9.0%	12.6%
• Return on actuarial value	7.9%	8.2%
• Ratio - actuarial value to market value	99.8%	100.8%
• Net cash flow % relative to market value	-1.6%	-1.3%
Actuarial Information:		
• Normal cost %	11.95%	12.06%
• Normal cost	\$82.9 million	\$83.2 million
• Actuarial accrued liability	\$3,863.5 million	\$3,734.0 million
• Unfunded actuarial accrued liability (UAAL)	\$1,337.5 million	\$1,354.2 million
• Funded ratio	65.4%	63.7%
• Effective amortization period	26 years	27 years
GASB Information:		
• Discount rate	7.75%	7.75%
• Total pension liability	\$3,863.5 million	\$3,734.0 million
• Plan fiduciary net position	\$2,530.7 million	\$2,360.5 million
• Net pension liability	\$1,332.9 million	\$1,373.5 million
• Plan fiduciary net position as % of total pension liability	65.5%	63.2%
Gains/(Losses):		
• Asset experience	\$ 4.6 million	\$ 9.5 million
• Liability experience	28.6 million	11.4 million
• Administrative Expenses	0.1 million	(0.3) million
• Benefit changes	0.0 million	0.0 million
• Assumption/method changes	0.0 million	0.0 million
• Total Gain/(Loss)	\$33.3 million	\$20.6 million

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

The following actuarial assumptions and methods have been set by the TFFR Board, based upon recommendations made by the Plan's actuary, for both funding and financial reporting purposes. However, the investment return rate used for funding is net of investment expenses and administrative expenses, whereas the rate used for financial reporting is net of investment expenses only (per GASB Statement 67). These actuarial assumptions and methods are based on the results of an experience study dated April 30, 2015, effective for the July 1, 2015 valuation.

ACTUARIAL ASSUMPTIONS

Investment Return Rate 7.75% per annum, compounded annually, equal to an assumed 2.75% inflation rate plus a 5.50% real rate of return, less 0.50% for expected investment and administrative expenses. (Adopted effective July 1, 2015)

Mortality Rates The mortality rates were based on historical and current demographic data, as used in the experience study dated April 30, 2015. The underlying tables reasonably reflect the mortality experience of the Fund as of the measurement date.

Post-Retirement Non-Disabled: RP-2014 Healthy Annuitant Mortality Table set back one year, multiplied by 50% for ages under 75 and grading up to 100% by age 80, projected generationally using Scale MP-2014. (Adopted effective July 1, 2015)
Sample 2014 mortality rates are as follows:

Age	Male	Female
50	0.20%	0.14%
55	0.27%	0.17%
60	0.37%	0.24%
65	0.51%	0.37%
70	0.77%	0.58%
75	1.22%	0.95%
80	3.62%	2.82%
85	6.93%	5.40%
90	12.15%	9.56%
95	20.11%	16.30%
100	29.38%	25.11%

The mortality tables are adjusted forward from 2014 using the generational projection to reflect future mortality improvement.

Post-Retirement Disabled: RP-2014 Disabled Mortality Table set forward 4 years. (Adopted effective July 1, 2015)

Pre-Retirement Non-Disabled: RP-2014 Employee Mortality Table projected generationally using Scale MP-2014. (Adopted effective July 1, 2015)

Summary of Actuarial Assumptions and Methods (continued)Retirement Rates

The following rates of retirement are assumed for members eligible to retire.
(Adopted effective July 1, 2015)

Age	Unreduced Retirement*		Reduced Retirement
	Male	Female	Male/Female
50-54	15.00%	15.00%	
55-57	15.00%	15.00%	2.00%
58	15.00%	15.00%	3.00%
59	15.00%	15.00%	3.50%
60	15.00%	15.00%	4.00%
61	25.00%	25.00%	6.50%
62	35.00%	35.00%	9.00%
63	25.00%	30.00%	12.00%
64	35.00%	40.00%	12.00%
65	40.00%	50.00%	
66	30.00%	40.00%	
67	30.00%	30.00%	
68	25.00%	30.00%	
69	25.00%	30.00%	
70-74	25.00%	25.00%	
75	100.00%	100.00%	

** If a member reaches eligibility for unreduced retirement before age 65 under the rule of 85 (Grandfathered Tier 1) or the Rule of 90/Age 60 (Non-grandfathered Tier 1 and Tier 2), 10% is added to the rate at the age (and only this age) the member first becomes eligible for an unreduced retirement benefit.*

Disability Rates

Shown below for selected ages. (Adopted effective July 1, 2010)

Disabilities per 100 Members	
Age	Number
20	0.011%
25	0.011%
30	0.011%
35	0.011%
40	0.033%
45	0.055%
50	0.088%
55	0.154%
60	0.297%

Summary of Actuarial Assumptions and Methods (continued)**Termination Rates**

Termination rates based on service, for causes other than death, disability, or retirement. (Adopted effective July 1, 2015)

Years of Service	Male	Female
0	20.00%	20.00%
1	14.00%	12.00%
2	11.00%	9.00%
3	8.00%	7.00%
4	6.50%	6.00%
5	5.00%	5.00%
6	4.00%	4.00%
7	3.50%	3.50%
8	3.00%	3.00%
9	2.50%	2.50%
10	2.50%	2.50%
11	2.00%	2.50%
12	2.00%	2.50%
13	2.00%	2.50%
14	2.00%	2.50%
15-18	1.50%	2.00%
19	0.75%	2.00%
20-24	0.75%	1.50%
25 and over	0.75%	0.75%

Termination rates eliminated at first retirement eligibility.

Salary Increase Rates

Inflation rate of 2.75% plus productivity increase rate of 1.50%, plus step-rate/promotional increase as shown below. (Adopted effective July 1, 2015)

Years of Service	Annual Step-Rate Promotional Component	Annual Total Salary Increase
0	10.25%	14.50%
1	3.50%	7.75%
2	3.25%	7.50%
3	3.00%	7.25%
4	2.75%	7.00%
5	2.50%	6.75%
6	2.25%	6.50%
7	2.00%	6.25%
8-9	1.75%	6.00%
10-11	1.50%	5.75%
12-13	1.25%	5.50%
14-15	1.00%	5.25%
16-18	0.75%	5.00%
19-22	0.50%	4.75%
23-24	0.25%	4.50%
25 & over	0.00%	4.25%

Summary of Actuarial Assumptions and Methods (continued)

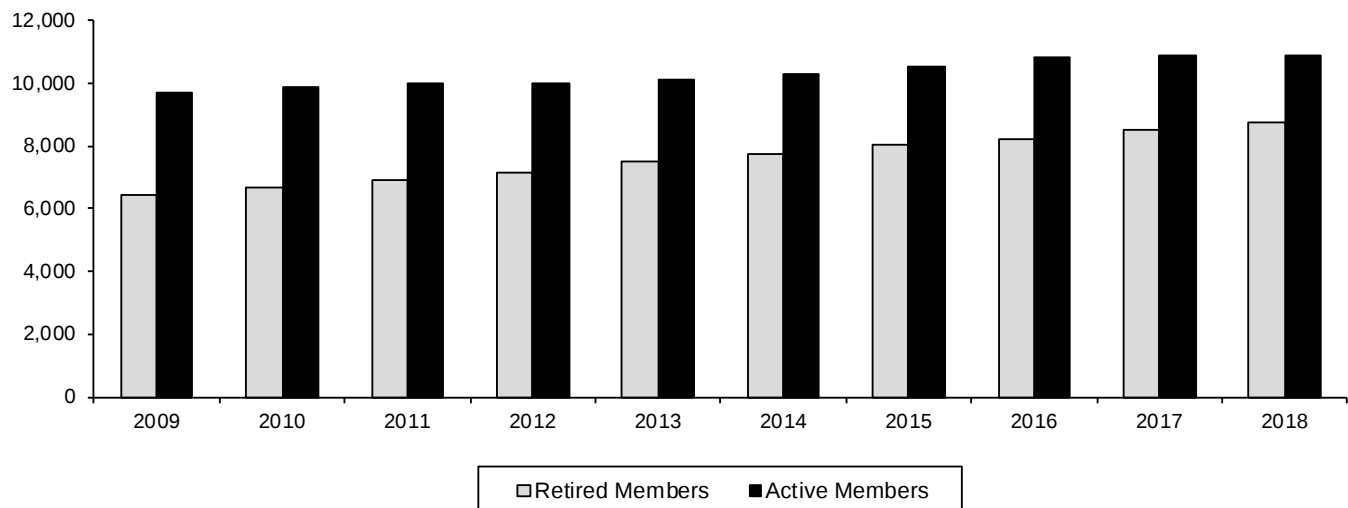
<u>Payroll Growth Rate</u>	3.25% per annum. This assumption does not include any allowance for future increase in the number of members. (Adopted effective July 1, 2010)
<u>Percent Married</u>	For valuation purposes, 75% of members are assumed to be married. Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses. (Adopted effective July 1, 1992)
<u>Percent Electing a Deferred Termination Benefit</u>	Terminating members are assumed to elect the most valuable benefit at the time of termination. Termination benefits are assumed to commence at the first age at which unreduced benefits are available. (Adopted effective July 1, 1990)
<u>Loading Factor for New Retirees</u>	The liability includes a 3% load for members who retired during the year ended June 30, 2018, to reflect that their benefit is not finalized as of the valuation date.
<u>Annual Administrative Expenses</u>	Administrative expenses of \$2,187,336 (actual expenses for the previous year, increased with inflation) are expected to be paid for the year beginning July 1, 2018.
<u>Asset Valuation Method</u>	The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (or less than) expected investment income. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The actual investment return for this purpose is determined net of all investment and administrative expenses. The actuarial value is further adjusted, if necessary, to be within 20% of the market value.
<u>Actuarial Cost Method</u>	Normal cost and actuarial accrued liability are calculated on an individual basis and are allocated by salary. Entry age is determined as the age at member's enrollment in TFFR. The actuarial accrued liability is the difference between the total present value of future benefits and the actuarial present value of future normal costs. The unfunded actuarial accrued liability (UAAL) is the excess of the actuarial accrued liability over the actuarial value of assets. The actuarial cost method used is the same for funding and financial reporting.
<u>Amortization Period and Method</u>	The actuarially determined contribution (ADC) is determined as the sum of (a) the employer normal cost rate, and (b) a level percentage of payroll required to amortize the unfunded actuarial accrued liability over the 30-year closed period that began July 1, 2013.

SCHEDULE OF ACTIVE MEMBERS

Valuation Year	Active Members		Covered Payroll (annualized)		Average Salary		Average Age	Average Service
	Number	Percent Increase	Amount in \$ Millions	Percent Increase	\$ Amount	Percent Increase		
2009	9,707	1.5	440.0	5.3	45,327	3.8	44.5	14.3
2010	9,907	2.1	465.0	5.7	46,937	3.6	44.2	14.0
2011	10,004	1.0	488.8	5.1	48,857	4.1	43.9	13.8
2012	10,014	0.1	505.3	3.4	50,458	3.3	43.7	13.7
2013	10,138	1.2	526.7	4.2	51,953	3.0	43.2	13.2
2014	10,305	1.6	557.2	5.8	54,073	4.1	42.9	12.8
2015	10,514	2.0	589.8	5.8	56,095	3.7	42.5	12.4
2016	10,813	2.8	627.0	6.3	57,986	3.4	42.3	12.1
2017	10,874	0.6	650.1	3.7	59,780	3.1	42.1	11.9
2018	10,881	0.1	653.5	0.5	60,055	0.5	41.9	11.8

SCHEDULE OF RETIREES AND BENEFICIARIES

Valuation Year	Number Added During Year	Annual Benefits Added (in mils)	Number Removed During Year	Annual Benefits Removed (in mils)	Number Receiving End of Year	Average Annual Benefit	Annual Pension Benefits (in mils)	Percent Increase In Annual Benefits
2009	346	\$ 7.9	197	\$ 2.5	6,466	\$ 18.168	\$114.0	7.0
2010	406	10.1	200	2.0	6,672	18,768	124.5	9.2
2011	426	9.9	165	2.0	6,933	19,272	127.4	2.3
2012	416	10.2	198	2.3	7,151	19,968	135.3	6.1
2013	480	13.7	142	1.9	7,489	20,664	145.9	7.8
2014	461	14.3	203	2.5	7,747	21,396	158.4	8.5
2015	463	13.7	185	2.5	8,025	22,104	168.3	6.3
2016	427	12.6	203	3.1	8,249	22,692	180.6	7.3
2017	447	14.3	195	2.9	8,501	23,399	191.1	5.8
2018	458	15.3	216	3.3	8,743	24,180	202.4	5.9

**ACTIVE MEMBERS VS RETIRED MEMBERS
10-YEAR SUMMARY**

ANALYSIS OF CHANGE IN ACTUARIALLY DETERMINED CONTRIBUTION (ADC)

	<u>7/1/2018</u>	<u>7/1/2017</u>
Prior valuation	12.99 %	13.22 %
Increases/(decreases) due to:		
Change in remaining amortization period	0.00 %	0.00 %
Change in covered payroll and normal cost	0.25 %	(0.03)%
Employer contributions received at 12.75% rather than 12.99% for FY2017 and rather than 13.22% for FY2016	0.02 %	(0.01)%
Gains and losses on accrued liability and administrative expenses	(0.28)%	(0.10)%
Investment experience	(0.04)%	(0.09)%
Legislative changes	0.00 %	0.00 %
Change in actuarial assumptions	<u>0.00 %</u>	<u>0.00 %</u>
Total	(0.05)%	(0.23)%
Current valuation	12.94 %	12.99 %
Statutory employer contribution rate	12.75 %	12.75 %
Margin available [contribution sufficiency/(deficiency)]	<u>(0.19)%</u>	<u>(0.24)%</u>

DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)

	<u>(\$ in millions)</u>	
	<u>7/1/2018</u>	<u>7/1/2017</u>
UAAL at beginning of year	\$ 1,354.2	\$ 1,360.1
Normal cost	80.2	77.3
Total contributions	(168.9)	(168.1)
Interest on:		
UAAL and normal cost	111.2	111.4
Total contributions	<u>(5.9)</u>	<u>(5.9)</u>
Expected UAAL	\$ 1,370.8	\$ 1,374.8
Changes due to (gain)/loss from:		
Investments	\$ (4.6)	\$ (9.5)
Demographics	(28.7)	(11.1)
Change due to actuarial audit	-	-
Change in actuarial assumptions	<u>-</u>	<u>-</u>
UAAL at end of year	<u>\$ 1,337.5</u>	<u>\$ 1,354.2</u>

SOLVENCY TEST

Valuation Year	Actuarial Accrued Liability (AAL) (in millions)				Portion of AAL Covered by Valuation Assets		
	Active Member Contributions	Retirees and Beneficiaries	Active/Inactive Members (Employer Financed)	Actuarial Value of Assets (\$ in millions)	Active Member Contributions	Retirees and Beneficiaries	Active/Inactive Members (Employer Financed)
2009	\$576.8	\$1,134.2	\$ 734.8	\$1,909.3	100.0%	100.0%	25.8%
2010	600.4	1,246.1	790.7	1,842.0	100.0	99.6	0.0
2011	626.0	1,332.1	791.6	1,822.6	100.0	89.8	0.0
2012	647.9	1,429.0	794.9	1,748.1	100.0	77.0	0.0
2013	671.1	1,551.7	774.3	1,762.3	100.0	77.6	0.0
2014	698.2	1,661.6	779.0	1,940.5	100.0	74.8	0.0
2015	737.5	1,874.7	837.6	2,125.0	100.0	74.0	0.0
2016	792.8	1,976.3	820.3	2,229.3	100.0	51.4	0.0
2017	839.1	2,092.9	802.0	2,379.8	100.0	73.6	0.0
2018	881.4	2,222.0	760.1	2,526.1	100.0	74.0	0.0

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date July 1	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded/ Accrued Liability (UAAL)	Funded Ratio	Total Payroll (annualized)	UAAL as a % of Compensation
2009	\$1,900.3	\$2,445.9	\$ 545.6	77.7%	\$440.0	124.0%
2010	1,842.0	2,637.2	795.2	69.8	465.0	171.0
2011	1,822.6	2,749.8	927.2	66.3	488.8	189.7
2012	1,748.1	2,871.9	1,123.8	60.9	505.3	222.4
2013	1,762.3	2,997.1	1,234.8	58.8	526.7	234.4
2014	1,940.5	3,138.8	1,198.3	61.8	557.2	215.1
2015	2,125.0	3,449.8	1,324.8	61.6	589.8	224.6
2016	2,229.3	3,589.4	1,360.1	62.1	627.0	216.9
2017	2,379.8	3,734.0	1,354.2	63.7	650.1	208.3
2018	2,526.1	3,863.5	1,337.5	65.4	653.5	204.7

Please also refer to the Schedule of Employer Contributions in the required supplementary information to the financial statements on page 64.

SUMMARY OF PLAN PROVISIONS

Effective Date: July 1, 1971.

Plan Year: July 1 through June 30

Administration: The Teachers' Fund for Retirement (TFFR) is administered by a Board of Trustees. A separate State Investment Board is responsible for the investment of the trust assets, although the TFFR Board establishes the asset allocation policy. The TFFR Board is also responsible for establishing and maintaining a funding policy. The Retirement and Investment Office is the administrative agency for TFFR.

Type of Plan: TFFR is a qualified governmental defined benefit retirement plan. For Governmental Accounting Standards Board purposes, it is a cost-sharing multiple-employer public employee retirement system.

Eligibility: All certified teachers of any public school in North Dakota participate in TFFR. This includes teachers, supervisors, principals, administrators, etc. Non-certified employees such as teacher's aides, janitors, secretaries, drivers, etc. are not allowed to participate in TFFR. Eligible employees become members at their date of employment.

Member Contributions: All active members contribute 11.75% of their salary per year. The employer may "pick up" the member's contributions under the provisions of Internal Revenue Code Section 414(h). The member contribution rate was increased from 7.75% to 9.75% effective July 1, 2012, and was increased to 11.75% effective July 1, 2014. The total addition of 4% to the member contribution rate will remain in effect until TFFR is 100% funded on an actuarial basis. At that point, the member contribution rate will revert to 7.75%.

Salary: A member's total earnings are used for salary purposes, including overtime, etc., and including nontaxable wages under a Section 125 plan, but excluding certain extraordinary compensation, such as fringe benefits or unused sick and vacation leave.

Employer Contributions: The district or other employer that employs a member contributes a percentage of the member's salary. This percentage consists of a base percentage of 7.75%, plus, since July 1, 2008, additions as shown below.

Effective Date	Addition to 7.75% Base Rate	Employer Contribution Rate
July 1, 2008	0.50%	8.25%
July 1, 2010	1.00%	8.75%
July 1, 2012	3.00%	10.75%
July 1, 2014	5.00%	12.75%

However, the additions are subject to a "sunset" provision, so the contribution rate will revert to 7.75% once the funded ratio reaches 100%, measured using the actuarial value of assets. The contribution rate will not automatically increase if the funded ratio later falls back below 100%.

Summary of Plan Provisions (continued)

Service: Employees receive credit for service while a member. A member may also purchase credit for certain periods, such as time spent teaching at a public school in another state, by paying the actuarially determined cost of the additional service. Special rules and limits govern the purchase of additional service.

Tiers: Members who join TFFR by June 30, 2008, are in Tier 1, while members who join later are in Tier 2. If a Tier 1 member terminates, takes a refund, and later rejoins TFFR after June 30, 2008, that member will be in Tier 2. As of June 30, 2013, Tier 1 members who are at least age 55 and vested (3 years of service) as of the effective date, or the sum of the member's age and service is at least 65, are considered Grandfathered, and previous plan provisions will not change. Tier 1 members who do not fit these criteria as of June 30, 2013, are considered Non-grandfathered. These members, along with Tier 2, will have new plan provisions, as described below.

Final Average Compensation (FAC): The average of the member's highest three (Tier 1 members) or five (Tier 2 members) plan year salaries. Monthly benefits are based on one-twelfth of this amount.

Normal Retirement:

a. Eligibility:

- Tier 1 members may retire upon Normal Retirement on or after age 65 with credit for 3 years of service, or if earlier, when the sum of the member's age and service is at least 85. Effective as of June 30, 2013, Tier 1 members who are at least age 55 and vested (3 years of service) as of the effective date, or the sum of the member's age and service is at least 65, normal retirement eligibility will not change (participants are Grandfathered). For those who do not meet this criteria as of June 30, 2013 (Non-grandfathered), members may retire upon Normal Retirement on or after age 65 with credit for 3 years of service, or if earlier, when the sum of the member's age and service is at least 90, with a minimum age of 60.
- Tier 2 members may retire upon Normal Retirement on or after age 65 with credit for 5 years of service, or if earlier, when the sum of the member's age and service is at least 90. Effective July 1, 2013, Tier 2 members may retire upon Normal Retirement on or after age 65 with credit for 5 years of service, or if earlier, when the sum of the member's age and service is at least 90, with a minimum age of 60.

b. Monthly Benefit: 2.00% of FAC (monthly) times years of service.

c. Payment Form: Benefits are paid as a monthly life annuity, with a guarantee that if the payments made do not exceed the member's assessments plus interest, determined as of the date of retirement, the balance will be paid in a lump-sum to the member's beneficiary. Optional forms of payment are available; see below.

Early Retirement:

- a. Eligibility: Tier 1 members may retire early after reaching age 55 with credit for three years of service, while Tier 2 members may retire early after reaching age 55 with credit for five years of service.

Summary of Plan Provisions (continued)

- b. Monthly Benefit: 2.00% of FAC (monthly) times years of service, multiplied by a factor which reduces the benefit 6% for each year from the earlier of (i) age 65, or (ii) the age at which current service plus age equals 85 (Tier 1 members) or 90 (Tier 2 members). Effective July 1, 2013, for members who are either Non-grandfathered Tier 1 or Tier 2: 2.00% of FAC (monthly) times years of service, multiplied by a factor which reduces the benefit 8% for each year from the earlier of (i) age 65, or (ii) the age at which current service plus age equals 90 with a minimum age of 60.
- c. Payment Form: Same as for Normal Retirement above.

Disability Retirement:

- a. Eligibility: A member is eligible provided he/she has credit for at least one year of service. Effective July 1, 2013, a member is eligible provided he/she has credit for at least five years of service.
- b. Monthly Benefit: 2.00% of FAC (monthly) times years of service with a minimum 20 years of service. Effective July 1, 2013, 2.00% of FAC (monthly) times years of service.
- c. Payment Form: The disability benefit commences immediately upon the member's retirement. Benefits cease upon recovery or reemployment. Disability benefits are payable as a monthly life annuity with a guarantee that, at the member's death, the sum of the member's contributions plus interest as of the date of retirement that is in excess of the sum of payments already received will be paid in a lump-sum to the member's beneficiary.
- d. All alternative forms of payment other than level income and the partial lump-sum option are also permitted in the case of disability retirement. For basis recovery only, disability benefits are converted to normal retirement benefits when the member reaches normal retirement age or age 65, whichever is earlier.

Deferred Termination Benefit:

- a. Eligibility: A Tier 1 member with at least three years of service, or a Tier 2 member with at least five years of service, who does not withdraw his/her contributions from the fund, is eligible for a deferred termination benefit.
- b. Monthly Benefit: 2.00% of FAC (monthly) times years of service. Both FAC and service are determined at the time the member leaves active employment. Benefits may commence unreduced at age 65 or when the member's age and service is 85 (Grandfathered Tier 1 members) or 90 with a minimum age of 60 (Non-grandfathered Tier 1 and Tier 2 members). Reduced benefits may commence at or after age 55 if the member is not eligible for an unreduced benefit. Reductions are the same as for Early Retirement.
- c. Payment Form: The form of payment is the same as for Normal Retirement above.
- d. Death Benefit: A member who dies after leaving active service but before retiring is entitled to receive a benefit as described below.

Withdrawal (Refund) Benefit:

- a. Eligibility: Tier 1 members leaving covered employment with less than three years of service, and Tier 2 members leaving covered employment with less than five years of service, are eligible. Optionally, vested members may withdraw their contributions plus interest in lieu of the deferred benefits otherwise due.

Summary of Plan Provisions (continued)

- b. Benefit: The member who withdraws receives a lump-sum payment of his/her employee contributions, plus the interest credited on these contributions. Interest is credited at 6% per year (0.5% per month).

Death Benefit:

- a. Eligibility: Death must have occurred while an active or an inactive, non-retired member.
- b. Benefit: Upon the death of a nonvested member, a refund of the member's contributions and interest is paid. Upon the death of a vested member, the beneficiary may elect (i) the refund benefit above, or (ii) a life annuity of the normal retirement benefit, determined under Option One below, based on FAC and service as of the date of death, but without applying any reduction for the member's age at death. In determining the reduction for Option One, members not eligible for normal retirement benefits use the Fund's option tables for disabled members.

Optional Forms of Payment: There are optional forms of payment available on an actuarially equivalent basis, as follows:

- a. Option 1 - A life annuity payable while either the participant or his beneficiary is alive, "popping-up" to the original life annuity if the beneficiary predeceases the member.
- b. Option 2 - A life annuity payable to the member while both the member and beneficiary are alive, reducing to 50% of this amount if the member predeceases the beneficiary, and "popping-up" to the original life annuity if the beneficiary predeceases the member.
- c. Option 3a - A life annuity payable to the member, with a guarantee that, should the member die prior to receiving 60 payments (five years), the payments will be continued to a beneficiary for the balance of the five-year period. (This option has been replaced by Option 3b. It is not available to employees who retire on or after August 1, 2003. Retirees who elected this option prior to that date are unaffected.)
- d. Option 3b - A life annuity payable to the member, with a guarantee that, should the member die prior to receiving 240 payments (twenty years), the payments will be continued to a beneficiary for the balance of the twenty-year period. (This option replaced Option 3a effective August 1, 2003.)
- e. Option 4 - A life annuity payable to the member, with a guarantee that, should the member die prior to receiving 120 payments (ten years), the payments will be continued to a beneficiary for the balance of the ten-year period.
- f. Option 5 - A non-level annuity payable to the member, designed to provide a level total income when combined with the member's Social Security benefit. This option is not available to disabled retirees.

In addition, members may elect a partial lump-sum option (PLSO) at retirement. Under this option, a member receives an immediate lump-sum equal to 12 times the monthly life annuity benefit and a reduced annuity. The reduction is determined actuarially. The member can then elect to receive the annuity benefit in one of the other optional forms, except that members who receive a PLSO may not elect Option 5 – the level income option. The PLSO is not available to disabled retirees or retirees who are not eligible for an unreduced retirement benefit.

Actuarial equivalence is based on tables adopted by the Board of Trustees.

Cost-of-living Increase: From time to time, TFFR has been amended to grant certain post-retirement benefit increases. However, TFFR has no automatic cost-of-living increase features.

SUMMARY OF PLAN CHANGES

1991 Legislative Session:

1. Benefit multiplier increased from 1.275% to 1.39% for all future retirees.
2. Provide a post-retirement benefit increase for all annuitants receiving a monthly benefit on June 30, 1991. The monthly increase is the greater of a 10% increase or a level increase based on years of service and retirement date:
 - a. \$3 per year of service for retirements before 1980.
 - b. \$2 per year of service for retirements between 1980 and 1983.
 - c. \$1 per year of service for retirements from 1984 through June 30, 1991.

Minimum increase is \$5 per month. Maximum increase is \$75 per month.

1993 Legislative Session:

1. Benefit multiplier increased from 1.39% to 1.55% for all future retirees.
2. Provide a post-retirement benefit increase for all annuitants receiving a monthly benefit on June 30, 1993. The monthly increase is the greater of a 10% increase or a level increase based on years of service and retirement date:
 - a. \$3 per year of service for retirements before 1980.
 - b. \$2.50 per year of service for retirements between 1980 and 1983.
 - c. \$1 per year of service for retirements from 1984 through June 30, 1993.

Minimum increase is \$5 per month. Maximum increase is \$100 per month.

3. Minimum retirement benefit increased to \$10 times years of service up to 25, plus \$15 times years of service greater than 25. (Previously was \$6 up to 25 years of service plus \$7.50 over 25 years of service.)
4. Disability benefit changed to 1.55% of FAC times years of service using a minimum of 20 years of service.

1995 Legislative Session:

There were no material changes made during the 1995 legislative session.

1997 Legislative Session:

1. Benefit multiplier increased from 1.55% to 1.75% for all future retirees.
2. Member assessment rate and employer contribution rate increased from 6.75% to 7.75%.
3. A \$30.00/month benefit improvement was granted to all retirees and beneficiaries.

Summary of Plan Changes (continued)

1999 Legislative Session:

1. Active members will now be fully vested after three years (rather than five years) of service.
2. Early retirement benefits will be reduced 6% per year from the earlier of (i) age 65, or (ii) the date as of which age plus service equals 85 (rather than from age 65 in all cases).
3. An ad hoc COLA was provided for all retirees and beneficiaries. This increase is equal to an additional \$2 per month for each year of service plus \$1 per month for each year since the member's retirement.
4. The formula multiplier was increased from 1.75% to 1.88% effective July 1, 1999.

2001 Legislative Session:

1. An ad hoc COLA was provided for all retirees and beneficiaries. The ad hoc COLA increase is equal to an additional \$2.00 per month for each year of service plus \$1.00 per month for each year since the member's retirement. Retirees and beneficiaries will also receive two additional increases equal to 0.75% times the monthly benefit, payable July 1, 2001 and July 1, 2002. The two 0.75% increases are conditional. If the actuarial margin is a shortfall, i.e., is negative, by 60 basis points or more, or if the margin has been negative by 30 or more basis points for two years, the Board could elect to suspend the increase.
2. The formula multiplier was increased from 1.88% to 2.00% effective July 1, 2001.

2003 Legislative Session:

1. Partial lump-sum option adopted, equal to twelve times the monthly life annuity benefit. Not available if level-income option is elected. Not available for reduced retirement or disability retirement.
2. Five-year certain and life option replaced with 20-year certain and life. This does not impact retirees who retired under the five-year certain and life option.
3. Employer service purchase authorized.
4. Active members of the Department of Public Instruction are permitted to make a one-time irrevocable election to transfer to the North Dakota Public Employees Retirement System in FY2004. Both assets and liabilities for all TFFR service will be transferred for electing employees. Transferred assets will be based on the actuarial present value of the member's accrued TFFR benefit, or the member's contribution account balance if larger.

2005 Legislative Session:

There were no material changes made during the 2005 legislative session.

Summary of Plan Changes (continued)**2007 Legislative Session:**

1. For active members hired on or after July 1, 2008 (called Tier 2 members):
 - a. Members will be eligible for an unreduced retirement benefit when they reach age 65 with at least five years of service (rather than three years of service); or if earlier, when the sum of the member's age and service is at least 90 (rather than 85).
 - b. Members will be eligible for a reduced (early) retirement benefit when they reach age 55 with five years of service, rather than three years of service.
 - c. Members will be fully vested after five years of service (rather than three years of service).
 - d. The Final Average Compensation for Tier 2 members is the average of the member's highest five plan year salaries, rather than the average of the three highest salaries.
2. The employer contribution rate increases from 7.75% to 8.25% effective July 1, 2008, but this rate will reset to 7.75% once the Fund reaches a 90% funded ratio, measured using the actuarial value of asset. (If the funded ratio later falls below 90% again, the contribution rate will not automatically return to 8.25%.)
3. Employer contributions are required on the salary of reemployed retirees.
4. Active members of the Department of Career and Technical Education are permitted to make a one-time irrevocable election to transfer to the North Dakota Public Employees Retirement System in FY 2008. Both assets and liabilities for all TFFR service will be transferred for electing employees. Transferred assets will be the actuarial present value of the member's accrued TFFR benefit, or the member's contribution account balance, if larger.

2009 Legislative Session:

1. An individual who retired before January 1, 2009, and is receiving monthly benefits is entitled to receive a supplemental payment from the fund. The supplemental payment is equal to an amount determined by taking twenty dollars multiplied by the member's number of years of service credit plus fifteen dollars multiplied by the number of years since the member's retirement as of January 1, 2009. The supplemental payment may not exceed the greater of 10% of the member's annual annuity or \$750.00. TFFR will make the supplemental payment in December 2009.
2. The employer contribution rate increases from 8.25% to 8.75% effective July 1, 2010, but this rate will be reset to 7.75% once the Fund reaches a 90% funded ratio, measured using the actuarial value of assets. (If the funded ratio later falls below 90% again, the contribution rate will not automatically return to 8.75%.)

2011 Legislative Session:

1. The employer contribution rate increases from 8.75% to 10.75% effective July 1, 2012, and increases thereafter to 12.75% effective July 1, 2014. The member contribution rate increases from 7.75% to 9.75% effective July 1, 2012, and increases thereafter to 11.75% effective July 1, 2014. Employer and member contributions will be reset to 7.75% once the Fund reaches a 90% funded ratio, measured using the actuarial value of assets.
2. Current Tier 1 members who, as of June 30, 2013, are vested (at least 3 years of service), and at least age 55, OR the sum of the member's age and service is at least 65, are considered a Tier 1 Grandfathered member. Current Tier 1 members, who do not meet this criteria as of June 30, 2013, are considered a Tier 1 Non-grandfathered member.

Summary of Plan Changes (continued)

3. Eligibility for normal/unreduced retirement benefits do not change for Tier 1 Grandfathered members. For Tier 1 Non-grandfathered and Tier 2 members, effective June 30, 2013, unreduced retirement benefits start when the member reaches age 65 and is vested (3 years for Tier 1 Non-grandfathered, 5 years for Tier 2); or if earlier, when the sum of the member's age and service is at least 90, with a minimum age of 60.
4. Early retirement benefits do not change for Tier 1 Grandfathered members. For Tier 1 Non-grandfathered and Tier 2 members, effective after June 30, 2013, the normal retirement benefit will be reduced by 8% per year from the earlier of age 65 OR the age at which the sum of the member's age and service is at least 90, with the minimum age of 60.
5. Effective after June 30, 2013, all members may retire on disability after a period of at least five years of service (rather than one year of service). The amount of the benefit is based on a 2% multiplier and actual service (rather than a minimum of twenty years of service in the current calculation).
6. Effect July 1, 2012, re-employed retirees are required to pay member contributions.
7. Effective August 1, 2011, beneficiary and death benefit provisions were updated, and the 60-month death payment benefit was removed.

2013 Legislative Session:

1. Employer and member contribution rates will be reset to 7.75% once the Fund reaches a 100% funded ratio (rather than the 90% funded ratio enacted with the 2011 Legislation), measured using the actuarial value of assets.
2. Various technical and administrative changes that do not have an actuarial effect on the Plan were enacted.

2015 Legislative Session:

1. Various technical and administrative changes that do not have an actuarial effect on the Plan were enacted.

2017 Legislative Session:

There were no material changes made during the 2017 legislative session.

STATISTICAL SECTION

This part of the Retirement and Investment Office's (RIO) comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about RIO's overall financial health.

Contents

Page

Financial Trends

186

These schedules contain trend information to help the reader understand how RIO's financial performance and well-being have changed over time.

Demographic Information

188

These schedules offer demographic indicators to help the reader understand the environment within which RIO's financial activities take place.

Operating Information

192

These schedules contain service data to help the reader understand how the information in RIO's financial report relates to the services RIO provides and the activities it performs.

Sources: Unless otherwise noted, the information in these schedules is derived from the comprehensive annual financial reports for the relevant year.

CHANGES IN NET POSITION PENSION TRUST FUND

ADDITIONS:

Fiscal Year	Member Contributions	Employer Contributions	Employer Contributions as a Percentage of Annual Covered Payroll	Investment and Other Income	Purchased Service Credit	Total Additions
2009	\$ 34,712,846	\$ 37,487,655	8.25	\$ (492,738,080)	\$ 2,176,734	\$ (418,360,845)
2010	36,848,481	39,836,646	8.25	179,066,695	1,413,481	257,165,303
2011	38,869,260	44,545,433	8.75	334,965,040	1,499,748	419,879,481
2012	40,254,562	46,126,193	8.75	(21,501,670)	2,417,995	67,297,080
2013	53,824,557	59,352,860	10.75	220,236,221	2,641,019	336,054,657
2014	56,554,767	62,355,146	10.75	294,294,215	2,034,289	415,238,417
2015	72,268,451	78,422,098	12.75	73,377,280	1,600,739	225,668,568
2016	76,342,685	82,839,932	12.75	8,283,962	2,768,245	170,234,824
2017	79,309,153	86,058,868	12.75	266,924,541	2,553,200	434,845,762
2018	79,877,611	86,675,715	12.75	211,539,397	2,181,106	380,273,829

DEDUCTIONS:

Fiscal Year	Benefits Paid to Participants	Refunds	Administrative Charges	Total Deductions	Change in Net Position
2009	\$ 113,966,079	\$ 2,362,251	\$ 1,707,506	\$ 118,035,836	\$ (536,396,681)
2010	124,472,154	2,557,240	1,902,796	128,932,190	128,233,113
2011	127,435,564	2,210,738	2,003,705	131,650,007	288,229,474
2012	135,250,568	2,479,194	1,596,976	139,326,738	(72,029,658)
2013	145,943,323	3,053,395	1,623,638	150,620,356	185,434,301
2014	158,350,355	3,908,921	1,586,045	163,845,321	251,393,096
2015	168,349,762	3,889,671	1,923,392	174,162,825	51,505,743
2016	180,617,784	5,350,896	1,851,656	187,820,336	(17,585,512)
2017	191,104,694	5,411,850	2,173,431	198,689,975	181,583,854
2018	202,417,031	5,561,668	2,128,794	210,107,493	170,166,336

BENEFIT AND REFUND DEDUCTIONS BY TYPE

Fiscal Year	Annuity Payments					Refunds			Total Benefit Expenses
	Service Retirements	PLSO Distributions	Disability Retirements	Beneficiaries	Total Annuity Payments	Separation	Death	Total Refunds	
2009	\$ 105,258,155	\$ 895,742	\$ 1,419,050	\$ 6,393,132	\$ 113,966,079	\$ 2,326,698	\$ 230,542	\$ 2,557,240	\$ 116,523,319
2010	115,203,349	821,478	1,440,481	7,006,846	124,472,154	1,953,964	256,774	2,210,738	126,682,892
2011	117,868,157	951,229	1,705,041	6,911,137	127,435,564	2,139,727	339,467	2,479,194	129,914,758
2012	125,721,931	532,104	1,685,206	7,311,327	135,250,568	2,870,693	182,702	3,053,395	138,303,963
2013	135,498,122	863,990	1,738,006	7,843,205	145,943,323	3,451,162	457,759	3,908,921	149,852,244
2014	147,286,889	820,463	1,960,290	8,282,713	158,350,355	3,090,345	799,326	3,889,671	162,240,026
2015	157,134,597	557,332	1,891,043	8,766,790	168,349,762	4,618,157	732,739	5,350,896	173,700,658
2016	168,179,310	992,233	1,920,107	9,526,134	180,617,784	4,776,556	635,294	5,411,850	186,029,634
2017	177,795,295	1,075,553	1,892,150	10,341,696	191,104,694	4,631,061	780,789	5,411,850	196,516,544
2018	188,684,763	768,829	1,903,460	11,059,979	202,417,031	4,770,163	791,505	5,561,668	207,978,699

**SCHEDULE OF CONTRIBUTION RATES
LAST 10 FISCAL YEARS**

<u>Fiscal Year</u>	<u>Member Rate</u>	<u>Employer Rate</u>
2009	7.75%	8.25%
2010	7.75%	8.25%
2011	7.75%	8.75%
2012	7.75%	8.75%
2013	9.75%	10.75%
2014	9.75%	10.75%
2015	11.75%	12.75%
2016	11.75%	12.75%
2017	11.75%	12.75%
2018	11.75%	12.75%

**PRINCIPAL PARTICIPATING EMPLOYERS
CURRENT YEAR AND NINE YEARS AGO**

Participating Employer	2018			2009		
	Covered Employees	Rank	% of Total System	Covered Employees	Rank	% of Total System
Bismarck Public Schools	1,215	1	10.25%	1,042	1	9.02%
Fargo Public Schools	1,134	2	9.56%	1,035	2	8.96%
West Fargo Schools	1,003	3	8.46%	558	5	4.83%
Grand Forks Schools	827	4	6.98%	757	3	6.55%
Minot Schools	709	5	5.98%	629	4	5.45%
Mandan Public Schools	338	6	2.85%	288	6	2.49%
Dickinson Schools	300	7	2.53%	244	7	2.11%
Williston Schools	283	8	2.39%	198	9	1.71%
Jamestown Schools	221	9	1.86%	223	8	1.93%
Devils Lake Schools	169	10	1.43%	171	10	1.48%
All Other ¹	5,657		47.71%	6,404		55.45%
Total (214 & 231 employers) ²	11,856		100.00%	11,549		100.00%

¹ In 2018 "all other" consisted of:

Type	Number	Employees
School Districts	166	5,082
County Superintendents	6	6
Special Education Units	19	368
Vocational Centers	4	50
State Agencies/Institutions	5	98
Other	4	53
Total	204	5,657

¹ In 2009 "all other" consisted of:

Number	Employees
174	5,905
11	11
19	345
5	48
7	86
5	9
221	6,404

² This schedule includes all employees who earned service credit during the fiscal year. If an employee worked for more than one employer during the year, that employee is counted multiple times. The total differs from the actuary's total active members as the actuary's total only includes those employees who were active at the end of the fiscal year and only counts each individual one time.

SCHEDULE OF PARTICIPATING EMPLOYERS AT JUNE 30, 2018**School Districts**

Alexander	Grafton	Minot
Anamoose	Grand Forks	Minto
Apple Creek Elementary	Grenora	Mohall-Lansford-Sherwood
Ashley	Griggs County Central	Montpelier
Bakker Elementary	Halliday	Mott-Regent
Barnes County North	Hankinson	Mt. Pleasant
Beach	Harvey	Munich
Belcourt	Hatton	Napoleon
Belfield	Hazelton – Moffit	Naughton Rural
Beulah	Hazen	Nedrose
Billings County School	Hebron	Nesson
Bismarck	Hettinger	New England
Bottineau	Hillsboro	New Rockford-Sheyenne
Bowbells	Hope	New Salem-Almont
Bowman	Horse Creek Elementary	New Town
Burke Central	Jamestown	Newburg United
Carrington	Kenmare	North Border School
Cavalier	Kensal	North Sargent
Center-Stanton	Kidder County School	North Star
Central Cass	Killdeer	Northern Cass
Central Elementary	Kindred	Northwood
Central Valley	Kulm	Oakes
Dakota Prairie	Lakota	Oberon Elementary
Devils Lake	LaMoure	Page
Dickinson	Langdon	Park River Area
Divide	Larimore	Parshall
Drake	Leeds	Pingree – Buchanan
Drayton	Lewis and Clark	Powers Lake
Dunseith	Lidgerwood	Richardton-Taylor
Earl Elementary	Linton	Richland
Edgeley	Lisbon	Rolette
Edmore	Litchville-Marion	Roosevelt
Eight Mile	Little Heart Elementary	Rugby
Elgin/New Leipzig	Lone Tree Elementary	Sargent Central
Ellendale	Maddock	Sawyer
Emerado Elementary	Mandan	Scranton
Enderlin Area School	Mandaree	Selfridge
Fairmount	Manning Elementary	Solen-Cannonball
Fargo	Manvel Elementary	South Heart
Fessenden-Bowdon	Maple Valley	South Prairie Elementary
Finley-Sharon	Mapleton Elementary	St. John's
Flasher	Marmarth Elementary	St. Thomas
Fordville Lankin	Max	Stanley
Fort Ransom Elementary	Mayville – Portland CG	Starkweather
Fort Totten	McClusky	Sterling
Fort Yates	McKenzie County School	Strasburg
Gackle-Streeter	Medina	Surrey
Garrison	Menoken Elementary	Sweet Briar Elementary
Glen Ullin	Midkota	TGU
Glenburn	Midway	Thompson
Goodrich	Milnor	Tioga
	Minnewauken	Turtle Lake - Mercer

SCHEDULE OF PARTICIPATING EMPLOYERS (Continued)

School Districts (cont.)

Twin Buttes Elementary
Underwood
United
Valley-Edinburg
Valley City
Velva
Wahpeton
Warwick
Washburn
West Fargo
Westhope
White Shield
Williams County School
Williston
Wilton
Wing
Wishek
Wolford
Wyndmere
Yellowstone
Zeeland

Total School Districts 176

County Superintendents

Logan County
McKenzie County
Morton County
Nelson County
Slope County
Ward County

Total County Super. 6

Special Education Units

Burleigh County Special Ed.
E Central Center for Exc. Children
GST Educational Services
James River Multidistrict Spec. Ed.
Lake Region Special Ed.
Lonetree Special Ed.
Northern Plains Special Ed.
Oliver – Mercer Special Ed.
Peace Garden Special Ed.
Pembina Spec. Ed. Co-Op
Rural Cass County Special Ed.
Sheyenne Valley Special Ed.
Souris Valley Special Ed.
South Central Prairie Special Ed.
South Valley Special Ed.
Southwest Special Ed.

Upper Valley Special Ed.
West River Student Services
Wil-Mac Special Ed.

Total Special Ed Units 19

Vocational Centers

North Valley Career & Tech Center
Roughrider Area Career & Tech
SE Region Career & Tech Center
Sheyenne Valley Area Voc Center

Total Vocational Centers 4

State Agencies & Institutions

ND Center for Distance Education
ND Dept. of Public Instruction
ND School for the Blind
ND School for the Deaf
ND Youth Correctional Center

**Total State Agencies
& Institutions 5**

Other

Great NW Cooperative
ND United
Roughrider Service Program
South East Education Co-Op

Total Other 4

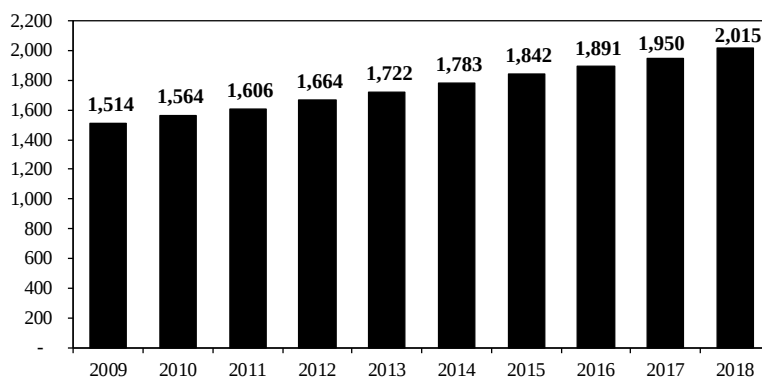
Total Employers 214

**SCHEDULE OF RETIREES RESIDING IN NORTH DAKOTA BY COUNTY
AS OF JUNE 30, 2018**

County	Number	Average Benefit	County	Number	Average Benefit	County	Number	Average Benefit
Adams	24	\$ 1,965	Griggs	43	\$ 1,912	Richland	144	\$ 2,274
Barnes	167	2,228	Hettinger	28	2,030	Rolette	98	2,008
Benson	55	2,156	Kidder	37	1,832	Sargent	42	1,720
Billings	4	1,479	LaMoure	69	1,886	Sheridan	15	1,718
Bottineau	127	1,738	Logan	18	1,936	Sioux	5	1,522
Bowman	46	1,915	McHenry	74	2,075	Slope	3	1,355
Burke	40	1,556	McIntosh	37	1,776	Stark	222	2,175
Burleigh	922	2,182	McKenzie	59	1,982	Steele	19	1,980
Cass	1139	2,303	McLean	126	1,897	Stutsman	235	2,134
Cavalier	74	1,809	Mercer	114	2,121	Towner	34	1,947
Dickey	72	1,969	Morton	295	2,005	Traill	107	1,922
Divide	32	1,925	Mountrail	78	1,600	Walsh	165	2,014
Dunn	39	2,161	Nelson	59	1,847	Ward	636	2,167
Eddy	38	1,972	Oliver	18	2,348	Wells	72	1,985
Emmons	38	1,965	Pembina	106	2,220	Williams	187	2,225
Foster	48	2,269	Pierce	66	1,841	Out of State	1,740	1,606
Golden Valley	20	2,004	Ramsey	135	1,910			
Grand Forks	646	2,259	Ransom	54	1,765			
Grant	31	1,538	Renville	41	1,907			
						GRAND TOTALS:	8,743	\$ 2,015

SCHEDULE OF AVERAGE BENEFIT PAYMENTS

Valuation Year		Years of Service								
		< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	> 34	TOTAL
2009	Number of Retirees	90	243	450	420	692	1,410	2,008	1,153	6,466
	Average Monthly Benefit	216	308	417	670	1,074	1,515	1,942	2,120	1,514
	Average Final Average Salary	1,751	1,984	1,751	2,144	2,627	2,972	3,318	3,315	2,910
	Average Years of Service	3	7	13	17	23	28	32	38	28
2010	Number of Retirees	90	262	463	430	717	1,438	1,971	1,301	6,672
	Average Monthly Benefit	199	316	441	695	1,130	1,569	1,984	2,194	1,564
	Average Final Average Salary	1,695	2,034	1,901	2,253	2,761	3,100	3,403	3,427	3,018
	Average Years of Service	3	7	13	17	23	28	32	38	28
2011	Number of Retirees	99	291	475	446	746	1,494	2,148	1,234	6,933
	Average Monthly Benefit	203	316	457	719	1,182	1,626	2,015	2,306	1,606
	Average Final Average Salary	1,806	2,072	1,967	2,351	2,869	3,209	3,456	3,537	3,100
	Average Years of Service	3	7	12	17	23	28	32	38	27
2012	Number of Retirees	99	309	482	464	771	1,521	2,232	1,273	7,151
	Average Monthly Benefit	202	317	479	757	1,228	1,673	2,065	2,438	1,664
	Average Final Average Salary	1,973	2,118	2,120	2,507	3,008	3,322	3,570	3,740	3,235
	Average Years of Service	3	7	13	17	23	28	32	38	27
2013	Number of Retirees	105	330	493	497	806	1,571	2,322	1,365	7,489
	Average Monthly Benefit	225	331	496	799	1,275	1,717	2,113	2,558	1,722
	Average Final Average Salary	1,989	2,219	2,210	2,663	3,118	3,412	3,661	3,893	3,344
	Average Years of Service	3	7	13	17	23	28	32	38	27
2014	Number of Retirees	111	351	498	507	835	1,618	2,400	1,427	7,747
	Average Monthly Benefit	232	333	512	837	1,340	1,770	2,169	2,667	1,783
	Average Final Average Salary	2,072	2,274	2,308	2,826	3,266	3,522	3,754	4,018	3,456
	Average Years of Service	3	7	12	17	23	28	32	38	27
2015	Number of Retirees	115	373	513	527	869	1,656	2,492	1,480	8,025
	Average Monthly Benefit	229	339	530	857	1,385	1,822	2,232	2,788	1,842
	Average Final Average Salary	2,112	2,352	2,417	2,895	3,372	3,625	3,862	4,169	3,565
	Average Years of Service	3	7	12	17	23	28	32	38	27
2016	Number of Retirees	118	400	530	540	897	1,692	2,541	1,531	8,249
	Average Monthly Benefit	224	344	547	890	1,435	1,871	2,292	2,868	1,891
	Average Final Average Salary	2,096	2,425	2,523	2,998	3,497	3,716	3,958	4,263	3,659
	Average Years of Service	3	7	12	17	23	28	32	38	27
2017	Number of Retirees	126	419	549	558	920	1,747	2,596	1,586	8,501
	Average Monthly Benefit	215	352	560	917	1,504	1,925	2,346	2,993	1,950
	Average Final Average Salary	2,139	2,501	2,590	3,070	3,647	3,809	4,034	4,403	3,755
	Average Years of Service	3	7	12	17	23	28	32	38	27
2018	Number of Retirees	123	444	560	588	952	1,781	2,659	1,636	8,743
	Average Monthly Benefit	211	361	576	981	1,557	1,990	2,407	3,119	2,015
	Average Final Average Salary	2,140	2,600	2,691	3,303	3,773	3,943	4,137	4,566	3,883
	Average Years of Service	3	7	12	17	23	27	32	38	27



SCHEDULE OF RETIREES BY BENEFIT AMOUNT

Monthly Benefit	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Under \$200	253	251	241	231	228	224	215	215	199	193
200 to 399	448	460	461	465	462	464	464	471	466	475
400 to 599	434	435	445	449	443	454	473	489	500	517
600 to 799	403	400	387	392	402	417	418	436	446	469
800 to 999	400	401	398	402	408	410	409	410	410	417
1,000 to 1,199	500	497	506	511	522	533	518	515	527	529
1,200 to 1,399	504	513	528	527	532	535	525	524	514	505
1,400 to 1,599	555	567	583	590	587	591	573	574	556	550
1,600 to 1,799	620	622	619	619	615	607	592	568	550	525
1,800 to 1,999	611	605	608	599	599	586	570	557	526	513
2,000 to 2,199	570	566	557	557	537	522	501	474	445	412
2,200 to 2,399	538	531	514	484	462	435	409	394	381	353
2,400 to 2,599	436	421	406	398	377	349	325	313	287	267
2,600 to 2,799	384	372	356	347	320	303	281	267	237	208
2,800 to 2,999	378	356	336	309	301	261	227	200	178	155
3,000 & Over										
3,000 to 3,199	329	314	292	277	228	206	178	155	124	110
3,200 to 3,399	288	272	239	210	178	147	124	91	84	70
3,400 to 3,599	220	197	175	156	141	114	92	79	72	61
3,600 to 3,799	186	162	144	132	101	83	72	55	46	41
3,800 to 3,999	131	115	105	79	62	58	42	35	34	24
4,000 & Over	555	444	349	291	242	190	143	111	90	72
TOTAL	8,743	8,501	8,249	8,025	7,747	7,489	7,151	6,933	6,672	6,466

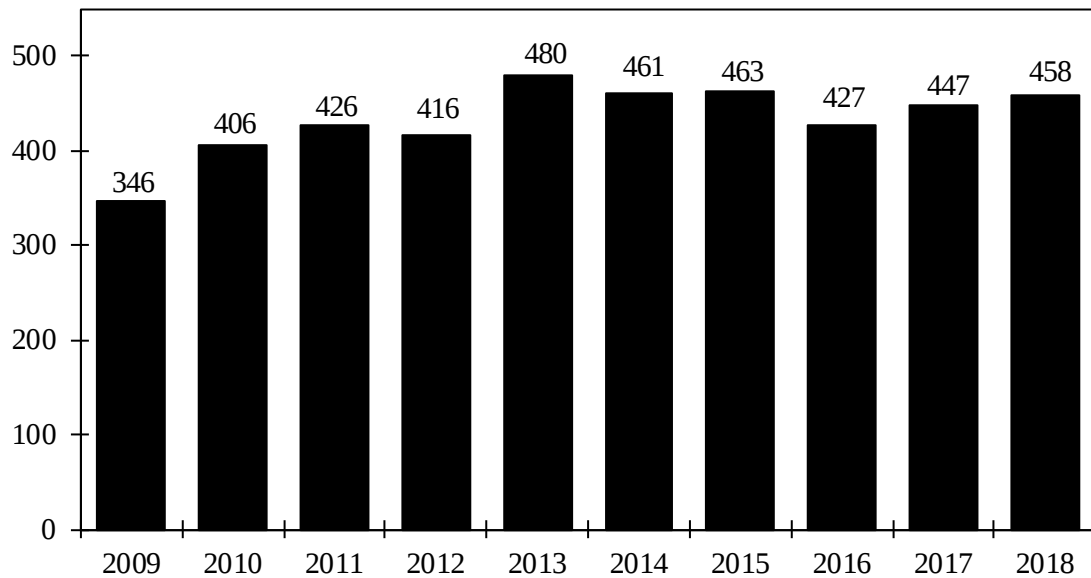
SCHEDULE OF RETIREES BY BENEFIT TYPE

Form of Payment	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Service:										
Straight Life	2,988	2,960	2,917	3,096	3,014	2,916	2,801	2,739	2,583	2,560
100% J&S	3,358	3,195	3,035	2,733	2,570	2,449	2,279	2,153	2,095	1,963
50% J&S	680	666	644	576	552	531	515	501	500	468
5 Years C&L	18	18	19	19	21	22	23	28	32	32
10 Years C&L	173	172	175	171	175	177	178	184	179	174
20 Years C&L	130	113	100	96	91	85	73	63	55	46
Level	530	540	545	559	568	574	579	584	585	590
Subtotal	7,877	7,664	7,435	7,250	6,991	6,754	6,448	6,252	6,029	5,833
Disability:										
Straight Life	97	102	105	105	105	103	96	97	88	85
100% J&S	20	18	14	12	13	12	13	11	11	13
50% J&S	5	6	7	8	7	6	8	8	7	6
5 Years C&L	1	1	1	1	2	2	2	2	2	2
10 Years C&L	0	0	0	0	0	0	-	1	2	1
20 Years C&L	2	1	1	2	2	1	1	1	1	1
Subtotal	125	128	128	128	129	124	120	120	111	108
Beneficiaries:										
Straight Life	698	667	662	631	612	599	571	545	522	513
5 Years Certain Only	0	-	3	2	2	2	2	6	6	6
10 Years Certain Only	4	4	11	9	9	9	9	9	3	5
20 Years Certain Only	12	12	10	5	4	1	1	1	1	1
QDRO Alternate Payee*	27	26								
Subtotal	741	709	686	647	627	611	583	561	532	525
TOTAL	8,743	8,501	8,249	8,025	7,747	7,489	7,151	6,933	6,672	6,466

* Prior to 2017, QDRO Alternate Payees were included within the other listed beneficiary options.

SCHEDULE OF NEW RETIREES BY TYPE

<u>Valuation Year</u>	<u>Retirement</u>	<u>Disability</u>	<u>Beneficiary</u>	<u>Total</u>
2009	304	8	34	346
2010	366	8	32	406
2011	370	12	44	426
2012	371	7	38	416
2013	425	11	44	480
2014	407	7	47	461
2015	415	5	43	463
2016	354	5	68	427
2017	391	4	52	447
2018	398	3	57	458



**SUMMARY OF OPERATIONS
FOR FISCAL YEARS ENDED JUNE 30
PENSION INVESTMENT POOL**

	2018	2017	2016	2015	2014
Public Employees Retirement System					
Net position beginning of year *	\$ 2,779,324,311	\$ 2,457,275,530	\$ 2,418,931,000	\$ 2,328,985,200	\$ 1,998,564,252
Net change in fair value of investments	196,115,456	266,102,905	(39,399,793)	46,174,788	293,366,241
Interest, dividends and other income	66,566,132	61,615,229	58,071,997	45,848,042	40,924,671
Expenses	(6,981,342)	(7,653,510)	(7,314,631)	(8,177,030)	(8,429,942)
Net securities lending income	227,516	224,157	286,957	-	-
Net change in net position resulting from unit transactions	(11,720,000)	1,760,000	26,700,000	6,100,000	4,650,000
Net position end of year	<u>\$ 3,023,532,073</u>	<u>\$ 2,779,324,311</u>	<u>\$ 2,457,275,530</u>	<u>\$ 2,418,931,000</u>	<u>\$ 2,329,075,222</u>

City of Bismarck Employees Pension Plan

Net position beginning of year	\$ 91,886,553	\$ 82,369,575	\$ 81,619,071	\$ 78,675,585	\$ 68,738,254
Net change in fair value of investments	5,176,598	7,655,028	(962,485)	1,640,168	8,799,404
Interest, dividends and other income	2,310,859	2,110,479	1,944,554	1,580,510	1,414,916
Expenses	(245,148)	(255,656)	(240,726)	(277,192)	(276,989)
Net securities lending income	7,232	7,127	9,161	-	-
Net change in net position resulting from unit transactions	-	-	-	-	-
Net position end of year	<u>\$ 99,136,094</u>	<u>\$ 91,886,553</u>	<u>\$ 82,369,575</u>	<u>\$ 81,619,071</u>	<u>\$ 78,675,585</u>

City of Bismarck Police Pension Plan

Net position beginning of year	\$ 38,108,450	\$ 33,953,131	\$ 35,834,028	\$ 34,585,870	\$ 30,034,601
Net change in fair value of investments	2,356,809	3,396,504	(604,855)	683,609	4,059,353
Interest, dividends and other income	921,416	862,083	821,724	686,314	615,490
Expenses	(99,784)	(106,294)	(101,614)	(121,765)	(123,574)
Net securities lending income	2,993	3,026	3,848	-	-
Net change in net position resulting from unit transactions	(1,200,000)	-	(2,000,000)	-	-
Net position end of year	<u>\$ 40,089,884</u>	<u>\$ 38,108,450</u>	<u>\$ 33,953,131</u>	<u>\$ 35,834,028</u>	<u>\$ 34,585,870</u>

City of Grand Forks Pension Plan

Net position beginning of year	\$ 63,347,814	\$ 57,923,958	\$ 59,147,291	\$ 57,805,527	\$ 50,088,805
Net change in fair value of investments	4,557,454	5,945,750	(1,154,709)	1,108,806	7,198,621
Interest, dividends and other income	1,398,714	1,342,535	1,271,401	1,076,573	947,544
Expenses	(137,236)	(160,995)	(158,797)	(187,677)	(198,607)
Net securities lending income	4,991	5,157	6,461	-	-
Net change in net position resulting from unit transactions	(5,548,089)	(1,708,591)	(1,187,689)	(655,938)	(230,836)
Net position end of year	<u>\$ 63,623,648</u>	<u>\$ 63,347,814</u>	<u>\$ 57,923,958</u>	<u>\$ 59,147,291</u>	<u>\$ 57,805,527</u>

Grand Forks Park District Pension Plan

Net position beginning of year	\$ 6,156,995	\$ 5,715,936	\$ 6,027,469	\$ 5,930,656	\$ 5,104,575
Net change in fair value of investments	461,549	611,751	(86,854)	167,018	768,855
Interest, dividends and other income	123,586	119,884	120,995	100,269	82,159
Expenses	(10,205)	(13,430)	(13,850)	(17,396)	(18,886)
Net securities lending income	368	447	645	-	-
Net change in net position resulting from unit transactions	40,956	(277,593)	(332,469)	(153,078)	(6,047)
Net position end of year	<u>\$ 6,773,249</u>	<u>\$ 6,156,995</u>	<u>\$ 5,715,936</u>	<u>\$ 6,027,469</u>	<u>\$ 5,930,656</u>

**SUMMARY OF OPERATIONS
FOR FISCAL YEARS ENDED JUNE 30
PENSION INVESTMENT POOL (Continued)**

	2018	2017	2016	2015	2014
City of Fargo Employee Pension Plan					
Net position beginning of year	\$ -	\$ -	\$ 1,459	\$ 9,653	\$ 34,092,918
Net change in fair value of investments	-	-	-	-	3,209,058
Interest, dividends and other income	-	-	41,431	12	312,254
Expenses	-	-	(242)	(50)	(50,674)
Net securities lending income	-	-	-	-	-
Net change in net position resulting from unit transactions	-	-	(42,648)	(8,156)	(37,553,903)
Net position end of year	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 1,459</u>	<u>\$ 9,653</u>

INSURANCE INVESTMENT POOL

Workforce Safety & Insurance Fund

Net position beginning of year *	\$ 1,893,847,576	\$ 1,831,144,126	\$ 1,761,372,600	\$ 1,703,113,129	\$ 1,556,724,746
Net change in fair value of investments	56,336,181	105,693,277	22,777,732	19,423,177	147,114,353
Interest, dividends and other income	47,422,961	46,210,318	46,504,149	40,772,394	36,959,249
Expenses	(4,009,141)	(4,348,175)	(4,681,475)	(4,436,100)	(4,118,600)
Net securities lending income	160,745	148,030	171,120	-	-
Net change in net position resulting from unit transactions	(71,000,000)	(85,000,000)	5,000,000	2,500,000	(33,500,000)
Net position end of year	<u>\$ 1,922,758,322</u>	<u>\$ 1,893,847,576</u>	<u>\$ 1,831,144,126</u>	<u>\$ 1,761,372,600</u>	<u>\$ 1,703,179,748</u>

State Fire & Tornado Fund

Net position beginning of year *	\$ 21,996,785	\$ 24,074,271	\$ 23,400,586	\$ 29,208,127	\$ 26,614,418
Net change in fair value of investments	706,982	1,593,978	150,447	249,666	2,812,662
Interest, dividends and other income	488,940	491,258	567,145	513,284	634,670
Expenses	(31,810)	(40,086)	(46,813)	(45,491)	(52,464)
Net securities lending income	2,342	2,364	2,906	-	-
Net change in net position resulting from unit transactions	(100,000)	(4,125,000)	-	(6,525,000)	(800,000)
Net position end of year	<u>\$ 23,063,239</u>	<u>\$ 21,996,785</u>	<u>\$ 24,074,271</u>	<u>\$ 23,400,586</u>	<u>\$ 29,209,286</u>

State Bonding Fund

Net position beginning of year *	\$ 3,374,454	\$ 3,296,466	\$ 3,180,146	\$ 3,269,043	\$ 3,141,217
Net change in fair value of investments	(25,066)	30,591	68,582	(3,765)	81,431
Interest, dividends and other income	65,328	50,948	51,284	43,443	50,268
Expenses	(3,577)	(3,615)	(3,614)	(3,575)	(3,744)
Net securities lending income	108	64	68	-	-
Net change in net position resulting from unit transactions	-	-	-	(125,000)	-
Net position end of year	<u>\$ 3,411,247</u>	<u>\$ 3,374,454</u>	<u>\$ 3,296,466</u>	<u>\$ 3,180,146</u>	<u>\$ 3,269,172</u>

Petroleum Tank Release Compensation Fund

Net position beginning of year *	\$ 6,395,816	\$ 7,148,653	\$ 7,161,986	\$ 7,092,048	\$ 6,838,697
Net change in fair value of investments	(39,367)	53,887	133,864	(10,166)	160,709
Interest, dividends and other income	115,418	99,013	108,926	86,302	99,366
Expenses	(5,463)	(5,859)	(6,259)	(6,198)	(6,443)
Net securities lending income	184	122	136	-	-
Net change in net position resulting from unit transactions	(300,000)	(900,000)	(250,000)	-	-
Net position end of year	<u>\$ 6,166,588</u>	<u>\$ 6,395,816</u>	<u>\$ 7,148,653</u>	<u>\$ 7,161,986</u>	<u>\$ 7,092,329</u>

**SUMMARY OF OPERATIONS
FOR FISCAL YEARS ENDED JUNE 30
INSURANCE INVESTMENT POOL (Continued)**

	2018	2017	2016	2015	2014
Insurance Regulatory Trust Fund					
Net position beginning of year *	\$ 5,288,341	\$ 1,085,848	\$ 2,635,975	\$ 1,146,179	\$ 1,043,935
Net change in fair value of investments	114,512	109,740	(14,307)	(21,102)	87,259
Interest, dividends and other income	61,910	41,650	26,821	13,845	17,515
Expenses	(3,107)	(4,697)	(2,768)	(2,947)	(2,485)
Net securities lending income	279	200	127	-	-
Net change in net position resulting from unit transactions	176,500	4,055,600	(1,560,000)	1,500,000	-
Net position end of year	<u>\$ 5,638,435</u>	<u>\$ 5,288,341</u>	<u>\$ 1,085,848</u>	<u>\$ 2,635,975</u>	<u>\$ 1,146,224</u>
Risk Management Fund					
Net position beginning of year *	\$ 5,779,115	\$ 6,531,063	\$ 6,845,712	\$ 6,945,451	\$ 6,184,088
Net change in fair value of investments	169,318	371,439	142,283	119,666	618,416
Interest, dividends and other income	114,213	135,891	154,478	142,740	154,962
Expenses	(6,357)	(9,781)	(12,010)	(12,145)	(11,745)
Net securities lending income	477	503	600	-	-
Net change in net position resulting from unit transactions	(1,100,000)	(1,250,000)	(600,000)	(350,000)	-
Net position end of year	<u>\$ 4,956,766</u>	<u>\$ 5,779,115</u>	<u>\$ 6,531,063</u>	<u>\$ 6,845,712</u>	<u>\$ 6,945,721</u>
Risk Management Workers Comp Fund					
Net position beginning of year *	\$ 5,532,694	\$ 5,512,685	\$ 6,221,021	\$ 5,962,912	\$ 5,244,603
Net change in fair value of investments	215,550	401,369	110,474	140,595	598,129
Interest, dividends and other income	115,169	128,181	142,278	129,379	131,002
Expenses	(6,488)	(10,079)	(11,724)	(11,865)	(10,590)
Net securities lending income	531	538	636	-	-
Net change in net position resulting from unit transactions	(500,000)	(500,000)	(950,000)	-	-
Net position end of year	<u>\$ 5,357,456</u>	<u>\$ 5,532,694</u>	<u>\$ 5,512,685</u>	<u>\$ 6,221,021</u>	<u>\$ 5,963,144</u>
Cultural Endowment Fund					
Net position beginning of year *	\$ 431,225	\$ 386,356	\$ 383,024	\$ 365,140	\$ 323,798
Net change in fair value of investments	26,754	40,393	59	11,196	47,641
Interest, dividends and other income	9,983	9,403	9,737	8,147	8,031
Expenses	(1,331)	(1,481)	(1,525)	(1,459)	(1,315)
Net securities lending income	59	54	61	-	-
Net change in net position resulting from unit transactions	(17,500)	(3,500)	(5,000)	-	(13,000)
Net position end of year	<u>\$ 449,190</u>	<u>\$ 431,225</u>	<u>\$ 386,356</u>	<u>\$ 383,024</u>	<u>\$ 365,155</u>
Budget Stabilization Fund					
Net position beginning of year *	\$ 6,105,913	\$ 575,715,191	\$ 573,636,701	\$ 585,977,310	\$ 401,157,397
Net change in fair value of investments	(694,082)	(2,161,212)	(2,598,566)	(3,424,930)	(2,296,687)
Interest, dividends and other income	1,024,321	5,327,628	14,079,730	15,215,741	13,897,151
Expenses	(89,583)	(293,371)	(806,390)	(798,665)	(634,071)
Net securities lending income	2,005	3,131	9,885	-	-
Net change in net position resulting from unit transactions	107,202,755	(572,485,454)	(8,606,169)	(23,332,755)	173,877,180
Net position end of year	<u>\$ 113,551,329</u>	<u>\$ 6,105,913</u>	<u>\$ 575,715,191</u>	<u>\$ 573,636,701</u>	<u>\$ 586,000,970</u>

**SUMMARY OF OPERATIONS
FOR FISCAL YEARS ENDED JUNE 30
INSURANCE INVESTMENT POOL (Continued)**

	2018	2017	2016	2015	2014
ND Association of Counties Fund					
Net position beginning of year	\$ 4,381,695	\$ 4,046,185	\$ 3,831,089	\$ 3,443,524	\$ 2,715,432
Net change in fair value of investments	109,928	254,411	32,045	26,016	267,459
Interest, dividends and other income	126,224	88,365	90,580	68,564	66,825
Expenses	(8,864)	(7,656)	(7,974)	(7,015)	(6,192)
Net securities lending income	553	390	445	-	-
Net change in net position resulting from unit transactions	1,300,000	-	100,000	300,000	400,000
Net position end of year	<u>\$ 5,909,536</u>	<u>\$ 4,381,695</u>	<u>\$ 4,046,185</u>	<u>\$ 3,831,089</u>	<u>\$ 3,443,524</u>
City of Bismarck Deferred Sick Leave Fund					
Net position beginning of year	\$ 697,552	\$ 641,629	\$ 871,405	\$ 849,149	\$ 1,015,873
Net change in fair value of investments	17,889	43,207	4,725	6,205	88,516
Interest, dividends and other income	16,101	14,747	17,577	18,591	22,312
Expenses	(1,960)	(2,097)	(2,153)	(2,540)	(2,552)
Net securities lending income	74	66	75	-	-
Net change in net position resulting from unit transactions	-	-	(250,000)	-	(275,000)
Net position end of year	<u>\$ 729,656</u>	<u>\$ 697,552</u>	<u>\$ 641,629</u>	<u>\$ 871,405</u>	<u>\$ 849,149</u>
PERS Group Insurance Fund					
Net position beginning of year	\$ 37,481,530	\$ 37,700,792	\$ 39,652,179	\$ 37,424,174	\$ 42,791,312
Net change in fair value of investments	(534,557)	(673,576)	208,951	-	-
Interest, dividends and other income	856,706	809,996	389,887	4,993	5,659
Expenses	(40,622)	(106,491)	(42,532)	(5,336)	(4,539)
Net securities lending income	1,252	809	185	-	-
Net change in net position resulting from unit transactions	(6,164,240)	(250,000)	(2,507,878)	2,228,348	(5,368,258)
Net position end of year	<u>\$ 31,600,069</u>	<u>\$ 37,481,530</u>	<u>\$ 37,700,792</u>	<u>\$ 39,652,179</u>	<u>\$ 37,424,174</u>
City of Fargo FargoDome Permanent Fund					
Net position beginning of year	\$ 41,608,846	\$ 38,746,191	\$ 40,968,808	\$ 41,747,304	\$ 36,375,195
Net change in fair value of investments	2,364,132	3,624,439	(402,921)	579,771	5,037,808
Interest, dividends and other income	937,419	814,008	970,497	840,686	823,378
Expenses	(72,390)	(81,422)	(97,132)	(98,953)	(89,077)
Net securities lending income	6,191	5,630	6,939	-	-
Net change in net position resulting from unit transactions	(220,000)	(1,500,000)	(2,700,000)	(2,100,000)	(400,000)
Net position end of year	<u>\$ 44,624,198</u>	<u>\$ 41,608,846</u>	<u>\$ 38,746,191</u>	<u>\$ 40,968,808</u>	<u>\$ 41,747,304</u>
ND State Board of Medicine					
Net position beginning of year	\$ 2,178,536	\$ 2,207,217	\$ 2,172,692	\$ 1,888,805	\$ -
Net change in fair value of investments	23,597	69,279	(13,650)	8,349	17,764
Interest, dividends and other income	50,861	51,834	53,273	50,585	8,273
Expenses	(4,025)	(7,288)	(5,270)	(5,047)	(1,535)
Net securities lending income	1,480	148	172	-	-
Net change in net position resulting from unit transactions	-	(142,654)	-	230,000	1,864,303
Net position end of year	<u>\$ 2,250,449</u>	<u>\$ 2,178,536</u>	<u>\$ 2,207,217</u>	<u>\$ 2,172,692</u>	<u>\$ 1,888,805</u>

SUMMARY OF OPERATIONS FOR FISCAL YEARS ENDED JUNE 30

INSURANCE INVESTMENT POOL (Continued)

	2018	2017	2016	2015	2014
Lewis & Clark Interpretive Center Endowment					
Net position beginning of year	\$ -	\$ -	\$ -	\$ -	\$ -
Net change in fair value of investments	(1,265)	-	-	-	-
Interest, dividends and other income	4,667	-	-	-	-
Expenses	(666)	-	-	-	-
Net securities lending income	22	-	-	-	-
Net change in net position					
resulting from unit transactions	700,139	-	-	-	-
Net position end of year	<u>\$ 702,897</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

INDIVIDUAL INVESTMENT ACCOUNTS

Legacy Fund

Net position beginning of year *	\$ 4,685,637,731	\$ 3,806,541,341	\$ 3,325,835,711	\$ 2,214,519,573	\$ 1,194,228,388
Net change in fair value of investments	253,324,655	389,970,910	(31,454,851)	45,818,808	74,027,273
Interest, dividends and other income	117,456,240	99,597,760	86,798,282	62,243,945	43,256,691
Expenses	(10,853,698)	(10,575,051)	(10,160,008)	(8,089,655)	(4,130,302)
Net securities lending income	648,335	601,637	668,257	-	-
Net change in net position					
resulting from unit transactions	529,870,755	399,501,134	434,853,950	1,011,343,040	907,214,971
Net position end of year	<u>\$ 5,576,084,018</u>	<u>\$ 4,685,637,731</u>	<u>\$ 3,806,541,341</u>	<u>\$ 3,325,835,711</u>	<u>\$ 2,214,597,021</u>

PERS Retiree Health Insurance Credit Fund

Net position beginning of year	\$ 116,059,215	\$ 101,546,422	\$ 97,598,008	\$ 90,294,490	\$ 73,623,303
Net change in fair value of investments	5,447,995	10,061,109	(1,185,174)	936,842	10,620,455
Interest, dividends and other income	3,138,168	2,342,444	2,271,408	2,105,154	1,984,435
Expenses	(379,586)	(335,760)	(292,820)	(281,478)	(238,703)
Net securities lending income	-	-	-	-	-
Net change in net position					
resulting from unit transactions	2,240,000	2,445,000	3,155,000	4,543,000	4,305,000
Net position end of year	<u>\$ 126,505,792</u>	<u>\$ 116,059,215</u>	<u>\$ 101,546,422</u>	<u>\$ 97,598,008</u>	<u>\$ 90,294,490</u>

Job Service North Dakota

Net position beginning of year	\$ 97,256,634	\$ 96,528,021	\$ 96,270,523	\$ 97,682,159	\$ 90,359,858
Net change in fair value of investments	483,223	3,337,293	2,352,098	1,818,431	10,466,656
Interest, dividends and other income	2,739,029	2,187,163	2,650,945	1,721,361	1,725,637
Expenses	(303,667)	(285,579)	(166,226)	(279,285)	(304,454)
Net securities lending income	-	-	3,516	-	-
Net change in net position					
resulting from unit transactions	(4,564,111)	(4,510,264)	(4,582,835)	(4,672,143)	(4,565,538)
Net position end of year	<u>\$ 95,611,108</u>	<u>\$ 97,256,634</u>	<u>\$ 96,528,021</u>	<u>\$ 96,270,523</u>	<u>\$ 97,682,159</u>

Tobacco Prevention and Control Fund

Net position beginning of year	\$ 57,453,579	\$ 54,359,321	\$ -	\$ -	\$ -
Net change in fair value of investments	828,375	839,579	840,505	-	-
Interest, dividends and other income	102,409	33,094	8,255	-	-
Expenses	(26,688)	(28,415)	(20,328)	-	-
Net securities lending income	-	-	-	-	-
Net change in net position					
resulting from unit transactions	(4,000,000)	2,250,000	53,530,889	-	-
Net position end of year	<u>\$ 54,357,675</u>	<u>\$ 57,453,579</u>	<u>\$ 54,359,321</u>	<u>\$ -</u>	<u>\$ -</u>

* Restated for FY15 due to prior period adjustment.

Legacy Fund was part of the Insurance Investment Pool until near the end of FY2015.

Job Service North Dakota was part of the Pension Investment Pool until mid-FY2016.