

ND STATE INVESTMENT BOARD AUDIT COMMITTEE MEETING

Thursday November 13, 2019 – 2:00 PM Retirement and Investment Office 3442 E Century Ave, Bismarck, ND 58507

AGENDA

- 1. Call to Order and Approval of Agenda Chair (committee action) (5 minutes)
- 2. Approval of September 26, 2019 Minutes Chair (committee action) (5 minutes)
- 3. Presentation of June 30, 2019 Financial Audit Report of RIO and Update on GASB 68 Schedule Audit Thomas Rey, CliftonLarsonAllen, LLP (committee action) (30 minutes)
- 4. Employer Review Process Sara Sauter & Dottie Thorsen (education) (30 minutes)
- 5. 2019 2020 First Quarter Audit Activities Report Sara Sauter (committee action) (20 minutes)
- 6. Update on Current Internal Audit Activities Sara Sauter (committee action) (30 minutes)
- 7. Audit Committee Charter Sara Sauter (committee action) (15 minutes)
- 8. Other Next SIB Audit Committee Meeting

North Dakota Retirement and Investment Office 3442 E Century Ave, Bismarck, ND 58503 Thursday, February 27, 2020 @ 3:00 PM

9. Adjournment

Any individual requiring an auxiliary aid or service should contact the Retirement and Investment Office at (701) 328-9885 at least (3) days prior to the scheduled meeting.

STATE INVESTMENT BOARD AUDIT COMMITTEE MEETING MINUTES OF THE SEPTEMBER 26, 2019 MEETING

COMMITTEE MEMBERS PRESENT:	Yvonne Smith, PERS Board, Chair Rob Lech, TFFR Board, Vice Chair Julie Dahle, External Representative (tlcf) Jon Griffin, External Representative
MEMBERS ABSENT:	Jodi Smith, Commissioner of Dept. of Trust Lands
STAFF PRESENT:	Connie Flanagan, Chief Financial Officer Bonnie Heit, Admin Svs Suprv David Hunter, ED/CIO Fay Kopp, Dep ED/CRO Sara Sauter, Suprv of Internal Audit Shelly Schumacher, Retirement Program Manager Dottie Thorsen, Internal Auditor

CALL TO ORDER:

GUEST:

Ms. Smith called the State Investment Board (SIB) Audit Committee meeting to order at 10:00 a.m. on Thursday, September 26, 2019, at the Retirement and Investment Office (RIO), 3442 E Century Ave., Bismarck, ND.

Anders Odegaard, Attorney General's Office

A quorum was present for conducting business.

AGENDA:

The agenda was considered for the September 26, 2019, meeting.

IT WAS MOVED BY DR. LECH AND SECONDED BY MR. GRIFFIN AND CARRIED BY A VOICE VOTE TO APPROVE THE AGENDA FOR THE SEPTEMBER 26, 2019, MEETING AS DISTRIBUTED.

AYES: DR. LECH, MS. DAHLE, MR. GRIFFIN, AND MS. SMITH NAYS: NONE MOTION CARRIED ABSENT: COMMISSIONER SMITH

MINUTES:

IT WAS MOVED BY MR. GRIFFIN AND SECONDED BY DR. LECH AND CARRIED BY A VOICE VOTE TO ACCEPT THE MAY 23, 2019, MINUTES AS DISTRIBUTED.

AYES: MS. DAHLE, DR. LECH, MR. GRIFFIN, AND MS. SMITH NAYS: NONE MOTION CARRIED ABSENT: COMMISSIONER SMITH

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ELECTION OF OFFICERS:

The position of Chair was open for election. Dr. Lech nominated Ms. Smith.

IT WAS MOVED BY DR. LECH AND SECONDED BY MR. GRIFFIN AND CARRIED BY A VOICE VOTE TO CEASE NOMINATIONS AND CAST A UNANIMOUS BALLOT FOR MS. SMITH TO SERVE AS CHAIR OF THE SIB AUDIT COMMITTEE FOR THE PERIOD OF JULY 1, 2019 - JUNE 30, 2020.

AYES: DR. LECH, MS. DAHLE, MR. GRIFFIN, AND MS. SMITH NAYS: NONE MOTION CARRIED ABSENT: COMMISSIONER SMITH

The position of Vice Chair was open for election. Mr. Griffin nominated Dr. Lech.

IT WAS MOVED BY MR. GRIFFIN AND SECONDED BY MS. SMITH AND CARRIED BY A VOICE VOTE TO CEASE NOMINATIONS AND CAST A UNANIMOUS BALLET FOR DR. LECH TO SERVE AS VICE CHAIR OF THE SIB AUDIT COMMITTEE FOR THE PERIOD OF JULY 1, 2019 - JUNE 30, 2020.

AYES: MR. GRIFFIN, MS. DAHLE, DR. LECH, AND MS. SMITH NAYS: NONE MOTION CARRIED ABSENT: COMMISSIONER SMITH

The Audit Committee concurred to forgo the appointment of a liaison to the SIB as Ms. Sauter has been providing updates to the SIB. In the event there would be a need to appoint a liaison, the Audit Committee will address it at that time.

CODE OF CONDUCT:

Ms. Flanagan reviewed the SIB Governance Manual Policy B-8, Board Members' Code of Conduct, which details the code of ethical responsibility applicable to members of the SIB. The SIB Audit Committee, as a standing committee of the SIB, is required to adhere to any applicable policies contained within the SIB Governance Manual. Ms. Flanagan requested the Audit Committee members affirm their understanding of the policies by signing and returning the Code of Conduct policy affirmation.

AUDIT ACTIVITIES REPORT:

Ms. Sauter reported on year end internal audit activities for the period of July 1, 2018 - June 30, 2019.

<u>Teachers' Fund for Retirement (TFFR)</u> - Four TFFR Employer Audits were completed. The workplan included 10 audits. Procedures for the TFFR Employer Audit Program were changed in November 2018. This resulted in less reviews being completed, as the new procedures needed to be developed and put into practice.

The Cost Benefit and Purchase/Refund Audits were completed. The File Maintenance Audit is in progress and is expected to be completed in the first quarter of 2019-20. The Salary Verification project was completed on July 17, 2019. The scope for randomly selected member accounts was expanded from 50 to 64.

Discussion followed on the implications of the Internal Audit Division transitioning from a compliance unit of TFFR to an internal audit function. Ms. Kopp discussed her concerns regarding the additional workload, particularly the Employer audits, as well as other areas that Retirement Services will eventually have oversite over. Ms. Kopp felt the additional workload, would not allow Retirement Services and the Information Technology staff the time needed to address core business operations, Outreach Programs, and the Pension Administration Software (PAS) project which will require significant staff resources. Ms. Kopp felt that an additional position will need to be assigned to Retirement Services to oversee compliance issues in the future given the Internal Audit Division's transitioning from a compliance unit of TFFR to an Internal Audit Division.

Ms. Sauter suggested the workload be outsourced in the interim and once the PAS is finalized, reevaluate the operations of the Retirement Services Division. Discussion followed on outsourcing the work.

The Audit Committee took no action but will continue to have dialogue on this matter to come up with a viable solution that works for everyone.

<u>SIB</u> - The Executive Limitations Audit, Executive Director/CIO Effectiveness Survey, Executive Review Committee survey, and the SIB Self-Assessment were completed.

The Investment Due Diligence Audit was completed on July 31, 2019.

<u>Retirement and Investment Office</u> - The agency risk assessment was completed in September 2018.

Assistance was provided to CliftonLarsonAllen during the FY2019 financial audit of RIO as well as the GASB 68 census data audits.

The Internal Audit Division, as members of the Institute of Internal Auditors, attended monthly meetings along with biannual seminars.

Ms. Sauter reviewed the Investment Due Diligence Audit, Salary Verification Audit, the New England and Wilton Employer Audits, and the Warwick compliance audit.

IT WAS MOVED BY MR. GRIFFIN AND SECONDED BY DR. LECH AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE JULY 1, 2018 - JUNE 30, 2019 INTERNAL AUDIT ACTIVITIES REPORT.

AYES: MR. GRIFFIN, DR. LECH, MS. DAHLE, AND MS. SMITH NAYS: NONE MOTION CARRIED ABSENT: COMMISSIONER SMITH

SIB REPORT:

Ms. Sauter reviewed the Audit Committee's activity report to the SIB for the period of July 1, 2018 - June 30, 2019.

IT WAS MOVED BY DR. LECH AND SECONDED BY MR. GRIFFIN AND CARRIED BY A VOICE VOTE TO APPROVE THE AUDIT COMMITTEE ACTIVITIES REPORT TO THE SIB FOR THE PERIOD OF JULY 1, 2018 - JUNE 30, 2019.

AYES: MS. DAHLE, DR. LECH, MR. GRIFFIN, AND MS. SMITH NAYS: NONE MOTION CARRIED ABSENT: COMMISSIONER SMITH

AUDIT CHARTER:

On an annual basis, the Audit Committee's charter is to be reviewed and approved by the Audit Committee as well as the SIB. Ms. Sauter highlighted the Audit Committee's charter and addressed how the work of the Audit Committee is being addressed according to their Charter. The most significant changes to the charter included the Risk Assessment of RIO and RIO's legal counsel informing Internal Audit that they could no longer determine if Employer salaries are in compliance and that it was Retirement Services responsibility to follow-up on errors with the Employers.

The Audit Committee had no changes to their Charter.

IT WAS MOVED BY DR. LECH AND SECONDED BY MR. GRIFFIN AND CARRIED BY A VOICE VOTE TO APPROVE THE ANNUAL REVIEW OF THE AUDIT COMMITTEE CHARTER.

AYES: MR. GRIFFIN, MS. DAHLE, DR. LECH, AND MS. SMITH NAYS: NONE MOTION CARRIED ABSENT: COMMISSIONER SMITH

EDUCATION:

Ms. Sauter presented an educational segment on "Internal Audit Background."

AUDIT WORKPLAN:

Ms. Sauter reviewed changes to the July 1, 2019 - June 30, 2020 workplan. Additional time has been allocated to Portfolio Monitoring Procedures and Administrative Manual updates.

Discussion followed on the allocation of hours.

The Audit Committee suggested a contingency plan be put in place to give more of a cushion as no workplan is exact as they continually revolve.

IT WAS MOVED BY MR. GRIFFIN AND SECONDED BY DR. LECH AND CARRIED BY A VOICE VOTE TO ACCEPT THE JULY 1, 2019 - JUNE 30, 2020, WORKPLAN.

AYES: DR. LECH, MS. DAHLE, MR. GRIFFIN, AND MS. SMITH NAYS: NONE MOTION CARRIED ABSENT: COMMISSIONER SMITH

INTERNAL AUDIT ACTIVITIES:

Ms. Sauter provided an update on current activities of Internal Audit.

Additional time has been allocated to the TFFR File Maintenance Audit. Internal Audit is conducting a review of the flow of work of those staff that support the Retirement Services Division. Internal Audit, once they have a clear understanding of the operations, can work with the TFFR support staff in a collaborative effort to assist in identifying efficiencies as staff work through the implementation of the new PAS. The information can also be helpful in conducting various audits.

9/26/19

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Ms. Kopp felt Internal Audit's review of the work flow could be postponed as the operations of the Retirement Services Division will be documented in detail as part of the re-engineering and automating of business processes during the PAS upgrade project. Ms. Kopp recommended more time be spent on this during or after the transition as opposed to now since current retirement processes and workflows will be done differently once a new web based system is in place. Retirement Services may not be able to address any recommendations from Internal Audit as all the processes will be changing in the future.

The Audit Committee took no action but will continue to have dialogue on this matter.

Ms. Sauter requested direction from the Audit Committee on the TFFR Employer salary review process.

Historically, two years are reviewed and a third year was added if systemic problems are identified in the two-year period. A sample of members are selected and the accuracy of retirement salaries, member contributions, and employer contributions reported to TFFR are verified. Service hours are reviewed for reasonableness and eligibility of members is also confirmed. If problems are identified during the review, the scope could be expanded to 100% of the members being reported to TFFR with the additional third year being reviewed. Since Internal Audit is focusing more on larger districts, expanding scopes will result in less mid-size employers being reviewed and possibly less other internal audits being completed.

Discussion followed on two possible options for the TFFR Employer Salary Reviews going forward:

1. A sample of members from two fiscal years are selected and the accuracy of retirement salaries, member contributions, and employer contributions reported to TFFR are verified. Service hours are reviewed for reasonableness and eligibility. Errors will be documented and forwarded to Retirement Services, but scope will not be expanded an additional year or members. 2. Keep scope the same.

Ms. Kopp requested the scope remain the same because of the implications of the Internal Audit Division transitioning from a compliance role to an internal audit function. The additional workload to Retirement Services is a concern. Ms. Kopp felt it would be more efficient if the third year is reviewed by Internal Audit.

Discussion followed on the options. After discussion, the Audit Committee concurred to keep the scope the same. The Audit Committee suggested Internal Audit allocate the appropriate hours to the TFFR program if a scope would need to be expanded. Another option would be to work with the Business Managers and have them correct the third year. Internal Audit is also to continue to identify the higher risk areas and prioritize projects based on that.

Other projects Internal Audit is currently working on is the Jamestown and Minot Employer audits, Benefit Payment Audit, File Maintenance Audit, Administrative Expense Audit, SIB Client Survey, and Cash Management and Rebalancing Audit.

IT WAS MOVED BY MR. GRIFFIN AND SECONDED BY DR. LECH AND CARRIED BY A VOICE VOTE TO ACCEPT THE CURRENT INTERNAL AUDIT ACTIVITIES REPORT.

AYES: MR. GRIFFIN, DR. LECH, MS. DAHLE, AND MS. SMITH NAYS: NONE MOTION CARRIED ABSENT: COMMISSIONER SMITH

OTHER:

The next Audit Committee meeting is scheduled for Wednesday, November 13, 2019, at 3:00 p.m. at the Retirement and Investment Office, 3442 East Century Ave., Bismarck, ND.

With no further business to come before the Audit Committee, Ms. Smith adjourned the meeting at 12:10 p.m.

Respectfully Submitted:

Ms. Yvonne Smith, Chair SIB Audit Committee

Bonnie Heit Recorder **Audit Results Presentation to:**

North Dakota Retirement and Investment Office – Audit Committee

November 13, 2019

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Agenda

- 2019 Audit Results
- Required Communications
- Financial Highlights
- GASB 68 Schedules Audit Update



2019 Audit Results

- Independent Auditors' Report Unmodified "clean" opinion that the financial statements are presented fairly, in all material respects, in conformity with U.S. Generally Accepted Accounting Principles (GAAP).
- Limited procedures were performed, and no opinion rendered, on management's discussion and analysis, required supplemental information, supplemental schedules, and the Introductory, Investment, Actuarial, and Statistical sections.
- Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*
 - No material weaknesses were identified.
 - No significant deficiencies were identified.
- Letter to the Board providing required communications with those charged with governance



Required Governing Body Communications

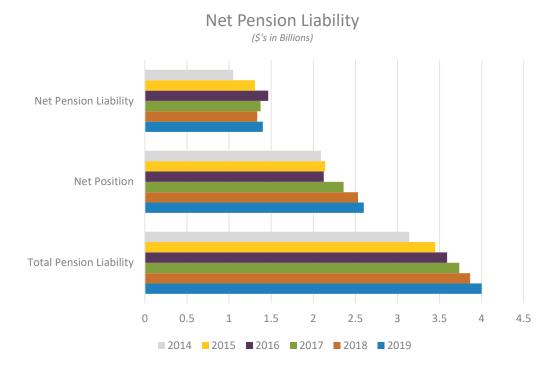
- Auditor's responsibility under U.S. Generally Accepted Auditing Standards
- Significant accounting policies
- Management judgments and accounting estimates
 - Valuation of alternative investments
 - Actuarial assumptions and methods used
- Significant Financial Statement Disclosures
- Significant Transactions

Other Communications

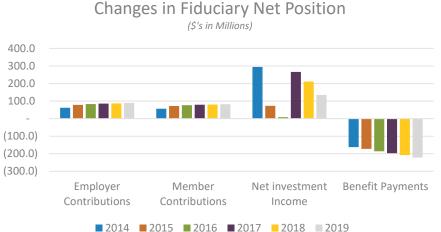
- Management was very cooperative and professional during the audit process
- No disagreements with management
- Management did not consult with other accountants on the application of GAAP or GAAS
- No major issues were discussed with management prior to retention
- Management Representation Letter



Financial Highlights – TFFR Net Pension Liability

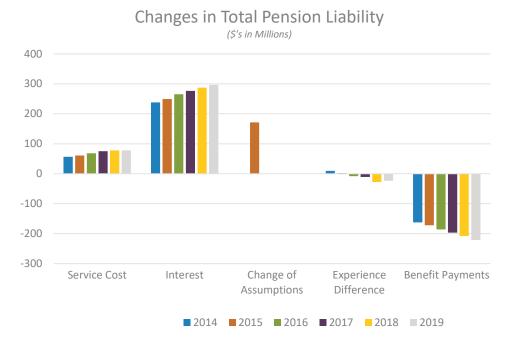


Financial Highlights – TFFR Changes in Fiduciary Net Position



- Contributions
 - Active members increased from 10,881 in 2018 to 11,175 in 2019
 - No change in contribution rates from 2018 to 2019
- Investment Income
 - 5.46% money-weighted rate of return in 2019
- **Benefit Payments**
 - Retirees increased from 8,743 in 2018 to 8,918 in 2019

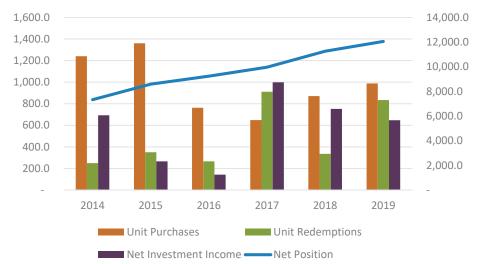
Financial Highlights – TFFR Changes in Total Pension Liability



No assumption changes in 2019



Financial Highlights – Investment Trust Changes in Fiduciary Net Position

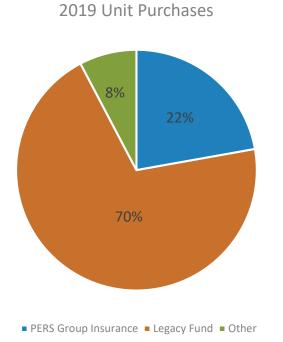


Changes in Net Position

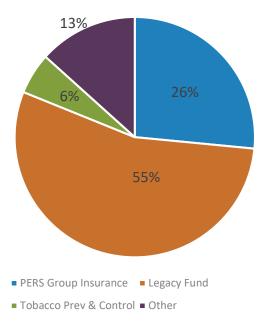
- Unit Purchases and Redemptions See next slide
- Net time-weighted rates of return for the Legacy Fund, Pension Pool and Insurance Pool were 4.9%, 5.5% and 6.8%, respectively, for the year ended June 30, 2019



Financial Highlights – Investment Trust Unit Purchases and Redemptions



2019 Unit Redemptions





GASB 68 Schedules Audit Update

- Employer Census Testing is Complete
 - Tested individual employee census data at **12** separate employers
 - 122 total employees tested
 - ♦ No errors noted
- Will start audit of the GASB 68 Schedules this month
- Expect to issue our final report on the schedules by the end of 2019





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NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE Bismarck, ND

FINANCIAL STATEMENTS June 30, 2019 and 2018

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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, 2019 and 2018, and the related statement 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, 2019 and 2018, 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 audit. 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.



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

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, 2019 and 2018, 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, 2019 and 2018, 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, 2019 and 2018, 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.

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

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.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Audit Standards*, we have also issued our report dated October 30, 2019, 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 control over financial reporting.

Clifton Larson Allen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland October 30, 2019



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INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

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

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the basic financial statements of the North Dakota Retirement and Investment Office (RIO), a department of the State of North Dakota, which collectively comprise RIO's basic financial statements, and the combining and individual fund financial statements, as of and for the year ended June 30, 2019, and the related notes to the financial statements, and have issued our report thereon dated October 30, 2019.

Internal Control over Financial Reporting

Management of RIO is responsible for establishing and maintaining effective internal control over financial reporting. In planning and performing our audit, we considered RIO's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of RIO's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of RIO's internal control over financial reporting.

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

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



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

Compliance and Other Matters

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

Purpose of this Report

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

Clifton Larson Allen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland October 30, 2019

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, 2019 and 2018. 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 24 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 \$885.4 million (6.4%) and \$1.5 billion (11.8%) in FY2019 and FY2018, respectively. Approximately 62% of the FY2019 increase and 61% of the FY2018 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 \$692.6 million and \$529.9 million, and net investment income exceeded \$309 million and \$361 million in FY2019 and FY2018, respectively.

Total additions in the fiduciary funds for FY2019 and FY2018 decreased by \$60.1 million (3.0%) and \$78.1 million (3.7%), respectively. Net investment income decreased in both years (by \$181.6 million and \$302 million respectively), due to weaker financial markets during those two years. There was an increase in new purchases of units in the investment program in both fiscal years due to strong oil and gas tax collections affecting the Legacy Fund. Total fiduciary fund purchases of units increased \$116.6 million (13.4%) and \$223.2 million (34.4%) in FY2019 and FY2018, respectively.

Deductions in the fiduciary funds increased by \$511.2 million (93.3%) in FY2019 after decreasing the prior year by \$562.8 million (50.7%). The majority of the increase from FY2018 to FY2019 was in redemptions of units, which increased by \$497.8 million (148.1%) due to the constitutionally mandated earnings transfer from the Legacy Fund to the General Fund. The State Constitution requires that all earnings accrued after June 30, 2017, be transferred to the General Fund at the end of each biennium. A transfer of \$455.3 million was made in July, 2019, and accrued as of the end of FY2019. The majority of the decrease in deductions from FY 2017 to FY2018 came from the \$574.5 million decrease in redemptions of units caused by the large drawdown of \$572.5 million in 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 \$13.2 million (6.4%) and \$11.5 million (5.8%) in FY2019 and FY2018, 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, 2019 and 2018, the TFFR pension plan had a Net Pension Liability (NPL) of \$1.38 billion and \$1.33 billion, and Plan Fiduciary Net Position as a percent of Total Pension Liability (TPL) of 65.5% and 65.5%, 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 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, 2019 and 2018, were \$15.2 billion and \$13.8 billion, respectively, and were comprised mainly of investments. Total assets increased by \$1.3 billion (9.7%) and \$1.4 billion (11.5%) from each prior year primarily due to strong financial markets.

Total liabilities as of June 30, 2019 and 2018, were \$511.3 and \$54.7 million. Over 90% of the liabilities (\$455.3 million) as of June 30, 2019, were the Legacy Fund's earnings due to the General Fund at the end of the biennium. Previous year-end liabilities were comprised mainly of the securities lending collateral payable.

RIO's fiduciary fund total net position was \$14.7 billion and \$13.8 billion at the close of fiscal years 2019 and 2018, respectively.

Net Position (In		iduciary F llions)	unds		
					Total %
		2019		2018	Change
Assets	¢	15.000 5	¢	12 (0) 7	0.70/
Investments	\$	15,028.7	\$	13,696.7	9.7%
Securities Lending Collateral		46.3		48.1	-3.9%
Receivables		87.7		75.2	16.6%
Cash & Other		20.5		20.9	-1.6%
Total Assets		15,183.2		13,840.9	9.7%
Deferred Outflows of Resources					
Deferred outflows related to pensions		1.2		1.4	-12.9%
1					
Liabilities					
Obligations under Securities Lending		46.3		48.1	-3.9%
Accounts Payable & Accrued Expenses		465.0		6.6	6990.3%
Total Liabilities		511.3		54.7	834.8%
Deferred Inflows of Resources		• •			
Deferred inflows related to pensions		0.2		0.1	124.4%
Total Net Position	\$	14,672.9	\$	13,787.5	6.4%
		2010			Total %
		2018		2017	Change
Assets	\$	12 606 7	\$	12 251 5	11.8%
Investments Securities Lending Collateral	Ф	13,696.7 48.1	Ф	12,251.5 77.7	-38.0%
Receivables		75.2		69.0	-38.070 9.1%
Cash & Other		20.9		19.3	8.1%
Total Assets		13,840.9		12,417.5	11.5%
104417455045		15,610.5		12,117.0	11.070
Deferred Outflows of Resources					
Deferred outflows related to pensions		1.4		0.6	113.3%
-					
Liabilities					
Obligations under Securities Lending		48.1		77.7	-38.0%
Accounts Payable & Accrued Expenses		6.6		9.5	-30.9%
Total Liabilities		54.7		87.2	-37.3%
Deferred Inflows of Resources		0.1		0.1	12.00/
Deferred inflows related to pensions		0.1		0.1	-13.0%
Total Net Position	\$	13,787.5	\$	12,330.8	11.8%

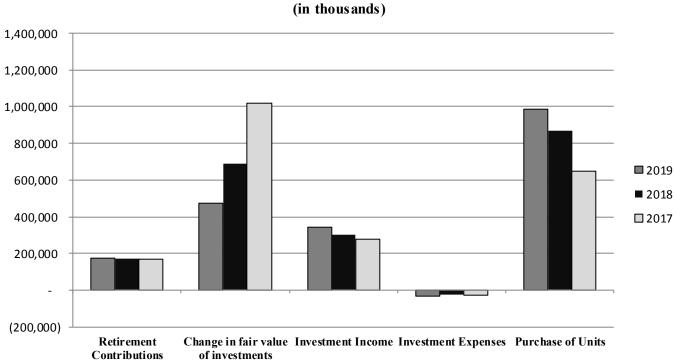
North Dakota Retirement and Investment Office Net Position – Fiduciary Funds (In Millions)

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

	2	2019	2018	Total % Change
Additions:				
Contributions	\$	173.9	\$ 168.9	3.0%
Net Investment Income		781.6	963.2	-18.9%
Net Securities Lending Income		1.2	1.3	-7.3%
Purchase of Units		987.8	871.3	13.4%
Total Additions		1,944.5	 2,004.7	-3.0%
Deductions:				
Payments to TFFR members		221.2	208.0	6.4%
Administrative Expenses		4.0	3.8	6.1%
Redemption of Units		833.9	336.2	148.1%
Total Deductions		1,059.2	 548.0	93.3%
Total Change in Net Position	\$	885.4	\$ 1,456.7	-39.2%
				Total %
		2018	 2017	Change
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		871.3	 648.1	34.4%
Total Additions		2,004.7	 2,082.7	-3.7%
Deductions:				
Payments to TFFR members		208.0	196.5	5.8%
Administrative Expenses		3.8	3.5	9.3%
Redemption of Units		336.2	 910.7	-63.1%
Total Deductions		548.0	 1,110.7	-50.7%
Total Change in Net Position				

Statement of Changes in Net Position – Additions

Contributions collected by the pension trust fund increased by \$5.0 million (3.0%) and \$0.8 million (0.5%) 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 \$181.7 million (18.8%) and \$302 million (23.8%) in FY2019 and FY2018, respectively. This was the result of weaker financial markets in both years compared to FY2017. Deposits of funds into the investment trust fund (purchase of units) continue to increase year-over–year, from \$648.1 million in FY2017 to \$987.8 million in FY2019, mainly due to increased deposits to the Legacy Fund.



Additions to Net Position

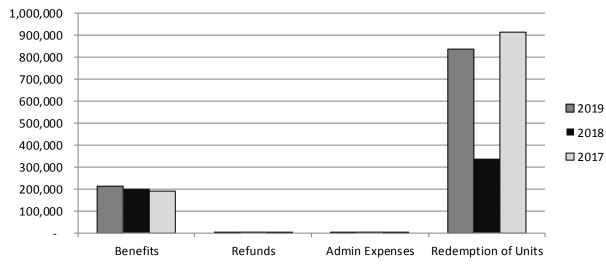
Statement of Changes in Net Position – Deductions

Benefits paid to TFFR plan participants, including partial lump-sum distributions, increased by \$13.2 million (6.4%) and \$11.3 million (5.9%) in FY2019 and FY2018, 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 \$339,000 (6.1%) and \$150,000 (2.8%) in fiscal years 2019 and 2018, respectively.

Administrative expenses increased by nearly \$233,000 in fiscal year 2019 and \$322,000 in fiscal year 2018. 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 FY2019; 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 increased by \$497.8 million in FY2019 due to the first biennial earnings transfer from the Legacy Fund. The redemption of units decreased in FY2018 by \$574.5 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, 2019, the pension investment pool (which includes the TFFR pension plan) and the Legacy Fund generated net time weighted investment returns of 5.5% and 5%, respectively, trailing their respective policy benchmarks. The insurance investment pool achieved a net time weighted return of 6.4% last year. Investment returns for global equities did not meet long-term expectations in fiscal 2019 due to the continued weakness in the international markets and significant return divergence between large and small companies, with larger companies in the United States returning over 10% last year (as referenced by the S&P 500 Index and Russell 1000 Index) while smaller U.S. companies fell over 3.3% in fiscal 2019 (as referenced by the Russell 2000 Index). Overall investment performance was negatively impacted by escalating concerns over the global trade war between the United States and China which significantly heightened volatility. Federal Reserve Board actions in the fourth quarter of 2018, which included a 0.25% rise in the target Federal Funds Rate, also dampened investor sentiment. Equity returns varied widely with U.S. equities in the pension investment pool earning over 8.3% in fiscal 2019 whereas international equities fell by 0.50%. Fixed income results were strong, gaining 7.8% in FY19, while global equities only gained 4.2% last year. Real asset performance was mixed but largely in line with overall benchmarks for the pension investment pool, with real estate up 6%, infrastructure up 5.1%, and timber up 4.1% in the last year. Private equity returns improved within the pension investment pool and rose 8.6% for the 1-year ended June 30, 2019.

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% that 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 pool 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-

North Dakota Retirement and Investment Office Management's Discussion and Analysis June 30, 2019 and 2018

investment grade debt earned over 5.1% in FY18 within the pension pool, 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%), while our timber portfolio lost 2.5% within the pension pool last year. Private equity returns were also disappointing within the pension pool earning slightly over 5.25% for the 1-year ended June 30, 2018.

While cumulative returns in the post-credit crisis era remained fairly strong, albeit weakening in the past year, investors today face numerous challenges that may limit the potential for future global growth rates to continue and possibly further 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 escalating uncertainty of global trade relations and policies between the U.S. and China and the United Kingdom and Europe 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. However, the Board is continuing to closely assess plan risks and monitor funding progress.

TFFR's funding level increased from 65.4% to 66.0% on an actuarial basis (and remained the same on a market basis at 65.5%) from July 1, 2018 to July 1, 2019. Once net investment losses over the past 5 years are recognized, the plan's funding level is expected to gradually improve over the long term, if all actuarial assumptions are met in the future, including the 7.75% investment return assumption. An Actuarial Experience Study will be conducted in the upcoming year to evaluate current actuarial assumptions, and changes will be considered if recommended by the actuary.

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

	Pensio	n Trust	Investme	ent Trust	Total		
	2019	2018	2019	2018	2019	2018	
Assets:							
Investments, at fair value							
Global equities	\$ 1,495,354,621	1,441,132,463 \$	5,758,237,240 \$		7,253,591,861 \$		
Global fixed income	575,551,625	589,368,951	4,510,779,742	4,099,552,552	5,086,331,367	4,688,921,503	
Global real assets	455,163,805	416,937,112	1,889,505,508	1,788,156,119	2,344,669,313	2,205,093,231	
Cash equivalents	35,025,659	28,631,157	309,039,173	127,104,537	344,064,832	155,735,694	
Total investments	2,561,095,710	2,476,069,683	12,467,561,663	11,220,630,464	15,028,657,373	13,696,700,147	
Invested securities lending							
collateral	8,495,437	7,413,200	37,770,485	40,721,545	46,265,922	48,134,745	
Receivables:							
Investment income	12,526,857	9,765,629	50,051,024	38,863,279	62,577,881	48,628,908	
Contributions	25,070,538	26,548,463	-	-	25,070,538	26,548,463	
Miscellaneous	6,394	8,127	26,379	28,001	32,773	36,128	
Total receivables	37,603,789	36,322,219	50,077,403	38,891,280	87,681,192	75,213,499	
Due from other state agency	-	174	-	-	-	174	
Cash and cash equivalents	20,305,041	20,486,449	257,511	410,261	20,562,552	20,896,710	
Equipment & Software (net of depr)	4,949	6,749			4,949	6,749	
Total assets	2,627,504,926	2,540,298,474	12,555,667,062	11,300,653,550	15,183,171,988	13,840,952,024	
Deferred outflows of resources							
Related to pensions	709,618	813,903	472,668	544,101	1,182,286	1,358,004	
Liabilities:							
Accounts payable	178,293	126,480	253,814	136,431	432,107	262,911	
Investment expenses payable	812,385	459,438	4,829,521	2,279,952	5,641,906	2,739,390	
Securities lending collateral	8,495,437	7,413,200	37,770,485	40,721,545	46,265,922	48,134,745	
Accrued expenses	2,445,348	2,395,362	1,193,588	1,111,661	3,638,936	3,507,023	
Miscellaneous payable	-	-	32,115	34,655	32,115	34,655	
Due to other state funds	-	-	455,263,216	-	455,263,216	-	
Due to other state agencies	7,954	11,967	1,470	2,572	9,424	14,539	
Total liabilities	11,939,417	10,406,447	499,344,209	44,286,816	511,283,626	54,693,263	
Deferred inflows of resources							
Related to pensions	104,071	48,519	67,473	27,917	171,544	76,436	
Fiduciary net position:							
Restricted for pensions	2,616,171,056	2,530,657,411	-	-	2,616,171,056	2,530,657,411	
Held in trust for external investment	,, -,	<u> </u>			,, · ,	<u> </u>	
pool participants:							
Pension pool	-	-	3,373,539,596	3,233,154,948	3,373,539,596	3,233,154,948	
Insurance pool	-	-	2,318,620,683	2,171,169,377	2,318,620,683	2,171,169,377	
Held in trust for individual investment							
accounts	-	-	6,364,567,769	5,852,558,593	6,364,567,769	5,852,558,593	
Total fiduciary net position	\$ 2,616,171,056	\$ 2,530,657,411 \$	12,056,728,048	5 11,256,882,918 \$	14,672,899,104 \$	13,787,540,329	
Each participant unit is valued at \$1.00 Participant units outstanding			12,056,728,048	11,256,882,918			

North Dakota Retirement and Investment Office

Statement of Changes in Net Position – Fiduciary Funds

Years Ending June 30, 2019 and 201	8
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	Pensi	on Trust	Investme	ent Trust	Total		
	2019	2018	2019	2018	2019	2018	
Additions:							
Contributions:							
Filling	\$ 89,444,881	· · ·	-	\$ - \$	89,444,881 \$	86,675,715	
Member contributions	82,429,594	79,877,611	-	-	82,429,594	79,877,611	
Purchased service credit	1,916,787	2,181,106	-	-	1,916,787	2,181,106	
Interest, penalties and other	158,713	194,028	-		158,713	194,028	
Total contributions	173,949,975	168,928,460	-		173,949,975	168,928,460	
Investment income:							
Net change in fair							
value of investments	84,701,380	162,026,369	388,737,303	527,542,620	473,438,683	689,568,989	
Interest, dividends and other income	56,434,954	54,486,768	284,507,483	246,166,774	340,942,437	300,653,542	
	141,136,334	216,513,137	673,244,786	773,709,394	814,381,120	990,222,531	
Less investment expenses	6,272,801	5,352,945	26,513,804	21,653,138	32,786,605	27,006,083	
Net investment income	134,863,533	211,160,192	646,730,982	752,056,256	781,594,515	963,216,448	
Securities lending activity:							
Securities lending income	224,713	231,448	1,226,258	1,334,400	1,450,971	1,565,848	
Less securities lending expenses	(44,927)	(46,271)	(245,058)	(266,663)	(289,985)	(312,934)	
Net securities lending income	179,786	185,177	981,200	1,067,737	1,160,986	1,252,914	
Purchase of units (\$1 per unit)	-	-	987,842,755	871,266,337	987,842,755	871,266,337	
Total additions	308,993,294	380,273,829	1,635,554,937	1,624,390,330	1,944,548,231	2,004,664,159	
Deductions:							
Benefits paid to participants	214,091,045	201,648,202	-	-	214,091,045	201,648,202	
Partial lump-sum distributions	1,237,129	768,829	-	-	1,237,129	768,829	
Refunds	5,900,392	5,561,668	-	-	5,900,392	5,561,668	
Administrative expenses	2,251,083	2,128,794	1,779,837	1,669,600	4,030,920	3,798,394	
Redemption of units (\$1 per unit)			833,929,970	336,169,172	833,929,970	336,169,172	
Total deductions	223,479,649	210,107,493	835,709,807	337,838,772	1,059,189,456	547,946,265	
Change in fiduciary							
net position	85,513,645	170,166,336	799,845,130	1,286,551,558	885,358,775	1,456,717,894	
Fiduciary net position:							
Beginning 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	
End of Year	\$ 2,616,171,056	\$ 2,530,657,411 \$	12,056,728,048	\$ 11,256,882,918 \$	14,672,899,104 \$	13,787,540,329	

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).

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 individual investment accounts; except for a small portion of the Legacy Fund fixed income and cash allocations that will be removed from the pools in July 2019.

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

	Years
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

Many 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 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, 20198 were deposited in the Bank of North Dakota. At June 30, 2019 and 2018, the carrying amount of TFFR's deposits was \$20,305,041 and \$20,486,449, respectively, and the bank balance was \$20,402,305 and \$20,528,537, 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, a pension pool cash account and a Legacy Fund cash account are recorded as investments and have a cost and carrying value of \$276,189,990 and \$88,601,097 at June 30, 2019 and 2018, respectively. In addition, these funds carry cash and cash equivalents totaling \$257,511 and \$410,261 June 30, 2019 and 2018, 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, 2019 and 2018, the following tables show the investments by investment type and maturity (expressed in thousands).

	1	Fotal Fair	Ι	ess than				Мс	ore than 10
2019		Value		1 Year	1-6 Years	6	-10 Years		Years
Asset Backed Securities	\$	316,024	\$	347	\$ 71,850	\$	69,713	\$	174,114
Bank Deposits		10,010		10,010	-		-		-
Bank Loans		4,372		-	3,195		1,177		-
Collateralized Bonds		2,716		-	-		250		2,466
Commercial Mortgage-Backed		238,449		898	5,521		3,321		228,709
Commercial Paper		1,596		1,596	-		-		-
Corporate Bonds		1,660,145		50,523	831,926		460,176		317,520
Corporate Convertible Bonds		21,761		721	12,187		2,443		6,410
Government Agencies		75,933		2,699	43,751		20,108		9,375
Government Bonds		603,757		23,646	269,268		102,364		208,479
Gov't Mortgage Backed		662,483		12	7,010		21,930		633,531
Gov't-issued CMB		101,527		16	6,696		34,673		60,142
Index Linked Government Bonds		582,630		12,957	154,761		261,770		153,142
Municipal/Provincial Bonds		35,474		600	13,806		5,942		15,126
Non-Government Backed CMOs		72,142		29	6,677		9,251		56,185
Other Fixed Income		1,003		-	1,003		-		-
Repurchase Agreements		(20,003)		(20,003)	-		-		-
Short Term Bills and Notes		31,986		31,986	-		-		-
Funds/Pooled Investments		1,416,917		-	743,936		452,982		219,999
Total Debt Securities	\$	5,818,922	\$	116,037	\$ 2,171,587	\$	1,446,100	\$	2,085,198

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements June 30, 2019 and 2018

	All values in \$000									
]	Fotal Fair	L	ess than					Мо	ore than 10
2018		Value		1 Year	1-6 Years			-10 Years		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

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 no POs and held IOs valued at \$18.8 and \$6.7 million at June 30, 2019 and 2018, 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, 2019 and 2018, (expressed in thousands).

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements June 30, 2019 and 2018

						Cr	edit Rating*					-
2019	Total Fair Value	AAA	AA	Α	BBB	BB	В	CCC	CC	С	D	NR
Asset Backed Securities	\$ 316,024	\$ 217,426	\$ 34,170	\$ 10,085	\$ 5,356	\$ 4,202	\$ 2,391	\$ 4,876	\$ 1,876	\$ -	\$ 1,319	\$ 34,323
Bank Deposits	10,010	-	1,528	8,482	-	-	-	-	-	-	-	-
Bank Loans	4,372	-	-	-	1,077	2,091	694	510	-	-	-	-
Collateralized Bond	2,716	2,716	-	-	-	-	-	-	-	-	-	-
Commercial Mortgage Backed	238,051	209,223	7,294	1,824	2,106	4,418	2,848	306	-	387	257	9,388
Commercial Paper	1,596	-	-	1,596	-	-	-	-	-	-	-	-
Corporate Bonds	1,660,145	13,187	83,331	527,582	752,212	183,056	85,478	9,374	233	-	878	4,814
Corporate Convertible Bonds	21,761	-	-	547	1,349	7,289	1,275	3,452	-	-	-	7,849
Gov't Agencies	61,492	4,969	35,290	6,939	13,673	-	-	621	-	-	-	-
Gov't Bonds	603,757	4,969	479,780	5,775	60,556	15,590	36,281	-	-	-	-	806
Gov't Mortgage Backed	496,512	-	495,487	200	825	-	-	-	-	-	-	-
Gov't Issued CMB	45,306	-	45,306	-	-	-	-	-	-	-	-	-
Index Linked Government Bonds	582,630	-	582,630	-	-	-	-	-	-	-	-	-
Municipal/Provincial Bonds	35,474	2,282	10,899	13,117	4,018	2,271	2,887	-	-	-	-	-
Non-Gov't Backed CMOs	72,142	26,000	4,758	3,733	1,723	515	2,128	2,830	1,395	-	207	28,853
Other Fixed Income	1,003	-	-	1,003	-	-	-	-	-	-	-	-
Repurchase Agreements	(20,003)	-	(20,003)	-	-	-	-	-	-	-	-	-
Short Term Bills & Notes	31,986	-	2,094	29,892	-	-	-	-	-	-	-	-
Funds/Pooled Investments	1,416,917	303,535	307,910	618,772	109,788	42,433	34,479	-	-	-		-
Total Credit Risk of Debt Securities	5,581,891	\$ 784,307	\$2,070,474	\$1,229,547	\$ 952,683	\$ 261,865	\$ 168,461	\$ 21,969	\$ 3,504	\$ 387	\$ 2,661	\$ 86,033
US Gov't & Agencies **	237,031											

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Total Debt Securities
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$ 5,818,922
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						Cre	dit Rating*					
2018	Total Fair Value	AAA	AA	А	BBB	BB	В	CCC	СС	С	D	NR
Asset Backed Securities	\$ 204,368	\$ 144,343	\$ 18,759	\$ 11,250	\$ 9,889	\$ 3,163	\$ 1,873	\$ 5,965	\$ 2,976	s -	\$ 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

- * 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, 2019 and 2018, 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, 2019 and 2018June 30, 2019 (expressed in thousands).

June 30, 2019 and 2018

2019					
Currency	Short-Term	Debt	Equity	Real Estate	Total
Argentine peso	\$ 82	\$ 1,011	\$ -	\$ -	\$ 1,093
Australian dollar	20,277	(18,935)	83,638	-	84,980
Brazilian real	214	-	7,957	-	8,171
British pound sterling	7,752	(5,981)	236,946	-	238,717
Canadian dollar	3,374	(3,500)	72,112	-	71,986
Chilean peso	53	-	-	-	53
Colombian peso	195	-	-	-	195
Czech koruna	-	-	-	-	-
Danish krone	108	-	38,568	-	38,676
Euro	(12,041)	13,867	479,747	5,815	487,388
Hong Kong dollar	792	-	139,204	-	139,996
Hungarian forint	172	520	3,833	-	4,525
Indonesian rupiah	56	-	-	-	56
Japanese yen	16,211	-	252,971	-	269,182
Malaysian ringgit	210	509	-	-	719
Mexican peso	37	74	1,321	-	1,432
New Israeli shekel	118	-	2,219	-	2,337
New Taiwan dollar	25	-	4,570	-	4,595
New Zealand dollar	(40)	-	211	-	171
Norwegian krone	621	495	11,845	-	12,961
Polish zloty	(50)	-	2,648	-	2,598
Singapore dollar	351	-	8,021	-	8,372
South African rand	323	-	7,843	-	8,166
South Korean won	177	-	13,080	-	13,257
Swedish krona	1,268	-	56,585	-	57,853
Swiss franc	960	-	119,456	-	120,416
Thai baht	312	-	6,086	-	6,398
Turkish lira	89	-	1,352	-	1,441
International commingled					
funds (various currencies)			995,814	28,930	1,024,744
Total international					
investment securities	\$ 41,643	\$ (11,940)	\$ 2,546,027	\$ 34,745	\$ 2,610,475

2018

Currency	Short-	Term	 Debt	Equity	Rea	al 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	2,399,924

Negative amounts represent short positions.

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, 2019 and 2018, 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 \$17.0 and \$100.0 million for fiscal years 2019 and 2018, respectively. At June 30, 2019 and 2018, the SIB investment portfolio had the notional futures balances shown below (expressed in thousands).

<u>Futures</u>	Notional Value							
	Jur	ne 30, 2019	Jur	ne 30, 2018				
Cash & Cash Equivalent Derivative Futures Long Short	\$	188,152 (657,304)	\$	226,320 (962,500)				
Equity Derivative Futures Long Short		808,005 -		647,386 -				
Fixed Income Derivative Futures Long Short		352,611 (141,400)		378,144 (132,120)				
Total Futures	\$	550,064	\$	157,230				

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 \$3.3 million and \$(9.1) million for fiscal years 2019 and 2018, respectively. At June 30, 2019 and 2018, 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, 2019 and 2018

<u>Options</u>	Fair	Value	
-	June 30, 2019	June 30, 2	2018
Cash & Other Options			
Call	\$ (10)	\$	(149)
Put	1		(363)
Fixed Income Options			
Call	(38)		-
Put	(241)		(5)
Total Options	\$ (288)	\$	(517)

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 \$(18.6) and \$3.6 million for fiscal years 2019 and 2018, respectively. The maximum loss that would be recognized at June 30, 2019 and 2018, if all counterparties failed to perform as contracted is \$3.0 million and \$2.75 million, respectively. Swap fair values are determined by a third party pricing source. At June 30, 2019 and 2018, 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.

	Notiona	l Amount		Fair	Value
			Expiration Date		
Counterparty/Moody's Rating	June 30, 2019	June 30, 2018	Range	June 30, 2019	June 30, 2018
Dark of America (A of (2 contracts)	¢ (420)		2021 2025	¢ (22)	
Bank of America/Aa2 (2 contracts)	\$ (430)	(2 700)	2021-2025	\$ (32)	
Bank of America/A1 (2 contracts)		(2,700)	2021		13
BNP Paribas/A1 (1 contract)		(400)	2019		(2)
Citibank/A1 (34 contracts)	(2,535)		2019 - 2024	(172)	
Citibank/A1 (23 contracts)		(9,005)	2018 - 2024		(55)
Credit Suisse First Boston/A1 (8 contracts)	(43,200)		2022 - 2024	931	
Credit Suisse First Boston/A1 (2 contracts)		(89,400)	2022 - 2023		1,369
Deutsche Bank/A3 (2 contracts)	2,000		2059	(16)	
Deutsche Bank/Baa2 (2 contracts)		2,000	2059		9
Goldman Sachs/A3 (4 contracts)	(1,900)		2020 - 2024	(28)	
Goldman Sachs/A3 (10 contracts)		(4,890)	2019 - 2063		37
HSBC Bank/Aa3 (2 contracts)	(1,550)		2019	2	
HSBC Bank/A1 (1 contract)		(100)	2023		(1)
JP Morgan Chase/Aa2 (2 contracts)	(400)		2019 - 2024	1	
JP Morgan Chase/Aa3 (1 contract)		(300)	2019		4
Morgan Stanley/A3 (2 contracts)	(245)		2024	2	·
Total Credit Default Swaps	\$ (48,260)	\$ (104,795)		\$ 688	\$ 1,374

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

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.

	1	Notional Amount					Fair	Value	
Counterparty/Moody's Rating	June 30), 2019	June	30, 2018	Expiration Date Range	June	30, 2019	June 3	30, 2018
JP Morgan Chase/Aa3 (1 contract) Total Currency Swaps	\$ \$	-	\$ \$	106 106	2020	\$ \$	-	\$ \$	(7)

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.

		Notional	unt		Fair Value										
Counterparty/Moody's Rating	Jun	June 30, 2019 J		June 30, 2019		June 30, 2019		June 30, 2019 June 30, 2018		30, 2018	Expiration Date Range	June	June 30, 2019		30, 2018
Citigroup Global Markets/A1 (24 contracts)	\$	84,455		(20.005)	2020 - 2049 2019 - 2025	\$	(3,427)		1 019						
Citigroup Global Markets/A1 (5 contracts) Credit Suisse First Boston/A1 (39 contracts)		128,462		(28,885)	2019 - 2049		12		1,018						
Credit Suisse First Boston/A1 (32 contracts) JP Morgan Chase/Aa2 (119 contracts)		447,530		94,495	2019 - 2048 2020 - 2048		(14,715)		2,275						
JP Morgan Chase/Aa3 (176 contracts) Total Interest Rate Swaps	\$	660,447	\$	(134,106) (68,496)	2018 - 2048	\$	(18,130)	\$	3,122 6,415						

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

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).

		Notional Amount					Fair	Value		
				Expiration Date						
Counterparty/Moody's Rating	June 3	June 30, 2019 June 30, 2018		Range	June 30, 2019		June 30, 2018			
JP Morgan Chase/Aa3 (22 contracts)	\$	_	\$	5,730	2022 - 2057	\$	_	\$	(25)	
Total Inflation Swaps	\$	-	\$	5,730		\$	-	\$	(25)	

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.

		Notional Amount				_	Fair V	alue	
					Expiration Date				
Counterparty/Moody's Rating	June	30, 2019	June	30, 2018	Range	June	30, 2019	June 3	30, 2018
Credit Suisse International/A1 (2 contracts)	\$	4,800	\$	4,800	2041	\$	(23)	\$	(20)
Total Total Return Swaps	\$	4,800	\$	4,800		\$	(23)	\$	(20)

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

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 \$1.7 million and \$2.2 million for fiscal years 2019 and 2018, respectively. At June 30, 2019 and 2018, the SIB's investment portfolio included the currency forwards balances shown below (expressed in thousands).

				Fair Value		
Currency	Cost	Purchases	Sales	6/30/2019	6/30/2018	
Argentine peso	\$ 15	\$ 15	\$ -	\$ 15	\$ 2	
Australian dollar	(1,472)	-	(1,472)	(1,484)	(1,832)	
Brazilian real	(18)	-	(18)	(30)	1,207	
British pound sterling	(8,241)	15,387	(23,628)	(8,279)	(3,549)	
Canadian dollar	(8,460)	9,960	(18,420)	(8,491)	(2,737)	
Colombian peso	186	186	-	195	213	
Egyptian pound	-	-	-	-	308	
Euro	(61,622)	37,046	(98,668)	(62,411)	(17,897)	
Japanese yen	(17,609)	13,100	(30,709)	(18,046)	(44,049)	
Mexican peso	6	2,818	(2,812)	38	83	
Russian ruble	-	-	-	-	38	
South African rand	(13)	1,608	(1,621)	-	(1,727)	
Swedish krona	-	-	-	-	4,629	
United States dollar	97,228	177,348	(80,120)	97,228	67,119	
Total forwards subject to	o currency risk			\$ (1,265)	\$ 1,808	

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, 2019 and 2018, the tables below show the SIB's derivative investments subject to interest rate risk (expressed in thousands).

2019	١	Total Jotional									Grea	ater than
		Value	3 mc	onths or less	3 to	6 months	6 to	12 months	1-5	years	5	years
Futures-interest rate contracts	\$	(257,941)	\$	162,528	\$	(525,813)	\$	105,344	\$	_	\$	-
Options-margined interest rate contracts		-		-		-		-		-		-
Total	\$	(257,941)	\$	162,528	\$	(525,813)	\$	105,344	\$	-	\$	-
	Т	otal Fair										ater than
		Value		onths or less	-	6 months		12 months		years	-	years
Options on futures	\$	(279)	\$	(279)	\$	-	\$	-	\$	-	\$	-
Swaps - interest rate contracts		(18,130)		-		5		293		(536)		(17,892)
Swaps - credit contracts		688		(1)		1		5		776		(94)
Total	\$	(17,721)	\$	(280)	\$	6	\$	298	\$	240	\$	(17,986)
2018	Ν	Total Jotional Value	3 m	onths or less	3 to	6 months	6 to	12 months	1-5	vears		ater than years
Futures-interest rate contracts	\$	(490,157)	\$	(442,696)	\$	(160,157)	\$	(50,322)	-	63,018	\$	-
Options-margined interest rate contracts		(17)		(17)		-		-		-		-
Total	\$	(490,174)	\$	(442,713)	\$	(160,157)	\$	(50,322)	\$ 1	63,018	\$	-
	_	<u>````</u>										
	T	otal Fair Value	3 mc	onths or less	3 to	6 months		12 months	1-5	years		ater than years
Options - interest rate contracts	T \$		<u>3 mc</u> \$	onths or less	3 to \$	6 months		(5)	<u>1-5</u>	years		
Options - interest rate contracts Options on futures				onths or less - (5)		6 months	6 to	(5)	-	years - -	5	
		Value -		-		<u>6 months</u> - - 251	6 to	(5)	-	years - - 1,229	5	
Options on futures		Value (5)		-		-	6 to	12 months	-	-	5	years - -

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, 2019 and 2018 (expressed in thousands).

North Dakota Retirement and Investment Office

	Dollars in \$(000)									
			Fair Value Measures Usi	ng						
2019	Fair Value 6/30/19	Quoted Prices in Active Markets for Indentical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)						
Investments by fair value level	0/0 0/12									
Short Term Securities										
Commercial Paper	\$ 1,596	\$ -	\$ 1,596	\$ -						
Short Term Bills and Notes	31,986	-	31,986	-						
Short Term Securities	33,582	-	33,582	-						
Fixed income investments			·							
Asset Backed Securities	310,664	-	303,159	7,505						
Bank Loans	4,372	-	4,372	-						
Collateralized Bonds	2,716	-	2,716	-						
Commercial Mortgage-Backed	238,449	-	238,449	-						
Corporate Bonds	1,660,145	-	1,656,435	3,710						
Corporate Convertible Bonds	21,761	-	20,995	766						
Funds - Fixed Income ETF	23,735	23,735	-	-						
Government Agencies	73,034	-	73,034	-						
Government Bonds	603,757	-	603,757	-						
Government Mortgage Backed Securities	662,483	-	662,483	-						
Gov't-issued Commercial Mortgage-Backed		-	101,527	-						
Index Linked Government Bonds	582,630	-	582,630	-						
Municipal/Provincial Bonds	35,474	-	35,474	-						
Non-Government Backed C.M.O.s	63,752	-	57,495	6,257						
Other Fixed Income	1,003	-	1,003	-						
Total fixed income investments	4,385,502	23,735	4,343,529	18,238						
Equity investments										
Common Stock	4,648,105	4,648,050	-	55						
Convertible Equity	2,816	-	2,816	-						
Funds - Equities ETF	173,072	173,072	-	-						
Preferred Stock	4,561	4,561	-	-						
Rights/Warrants	776	776	-	-						
Stapled Securities	4,520	4,520	-	-						
Total equity investments	4,833,850	4,830,979	2,816	55						
Derivative investments										
Exchange Cleared Swaps	(17,168)	-	(17,168)	-						
Options	(288)	(279)	(9)	-						
Swaps	(297)	-	(297)	-						
Total derivative investments	(17,753)	(279)	(17,474)	-						
Total investments by fair value level	\$ 9,235,181	\$ 4,854,435	\$ 4,362,453	\$ 18,293						

North Dakota Retirement and Investment Office Notes to Combined Financial Statements June 30, 2019 and 2018

			т	Infunded	Dedometion Fragmanay	Dedometion
			-		Redemption Frequency	Redemption
Investments measured at the net asset value (N	IAV)	Coi	mmitments	(If Currently Eligible)	Notice Period
Commingled Funds-Debt	\$	1,393,182	\$	-	Daily, monthly	1-15 days
Commingled Funds-Equities		1,109,757		-	Daily, monthly	1-15 days
Distressed Debt		235,686		76,921	Quarterly, Not eligible	60 days
Long/Short		223,575		-	Monthly	15 days
Mezzanine Debt		496		8,499	Not eligible	Not eligible
Private Credit		290,157		146,200	Not eligible	Not eligible
Private Equity		229,364		339,869	Not eligible	Not eligible
Real Assets		1,798,987		358,278	Quarterly, Not eligible	30-90 days
Total investments measured at the NAV	\$	5,281,204	\$	929,767		
Investments at other than fair value						
	¢	470 222				
Cash and adjustments to cash	\$	478,322				
Bank Certificates of Deposit		37,300				
Other miscellaneous securities		16,653				
Repurchase Agreements		(20,003)				
Total investments at other than fair value	\$	512,272				
Total investments	\$	15,028,657				

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

	June	30,	2019	and	2018
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		Do	llars in \$(000)	
			Fair Value Measures Usin	ıg
2018	Fair Value 6/30/18	Quoted Prices in Active Markets for Indentical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level	0/ 50/ 10		(10.0012)	(12, ver 5)
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	-
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	
	• • • = •	(0)		

				Unfunded	Redemption Frequency	Redemption
Investments measured at the net asset value	(NA	V)	C	ommitments	(If Currently Eligible)	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	\$	13,696,700				

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, 2019 and 2018, unfunded commitments in one of its two distressed debt funds totaled \$76.9 million and \$46.0 million,

respectively. This fund is not eligible for redemptions. The other fund is eligible for redemptions with quarterly 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, 2019 and 2018.

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, 2019 and 2018, 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 credit 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 2 to 3 years, and the unfunded commitments totaled \$146.2 million and \$177.2 million as of June 30, 2019 and 2018, respectively.

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 \$339.9 million and \$300.5 million in unfunded private equity commitments as of June 30, 2019 and 2018, 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.

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 10 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. The remaining seven funds are closed-ended limited partnerships that are not eligible for redemptions. Those seven funds have a combined unfunded commitment of \$114.4 million and \$79.2 million as of June 30, 2019 and 2018, 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 2-7 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, 2019 and 2018, 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 \$243.9 million and \$186.3 million at June 30, 2019 and 2018, 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 71 and 61 days as of June 30, 2019 and 2018, respectively. Cash open collateral is invested in a short term investment pool, which had an interest sensitivity of 3 days as of June 30, 2019 and 2018. 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 on the securities lend. 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, 2019 and 2018 (expressed in thousands).

2019	Securities Lent			on-Cash llateral Value	Cash Collateral Investment Value		
Lent for cash collateral:							
US agency securities	\$	528	\$	-	\$	541	
US government securities		4,387		-		4,481	
US corporate fixed income securities	2	0,637		-		21,047	
Global agency securities		1,559				1,636	
Global government securities		100				107	
Global corporate fixed income securities		1,565		-		1,667	
US equities	1-	4,560		-		14,762	
Global equities		1,934		-		2,025	
Lent for non-cash collateral:							
US agency securities		200		202		-	
US government securities	1	7,679		17,968		-	
US corporate fixed income securities	6	4,979		65,750		-	
US equities	21	1,061		213,840		-	
Global equities	1	7,900		18,960		-	
Total	\$ 35	7,089	\$	316,720	\$	46,266	

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements

June	30,	2019	and	2018
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2018	Securities Lent			on-Cash Illateral Value	Cash Collateral Investment Value	
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	\$	451,206	\$	416,872	\$	48,135

Note 4 - Capital Assets

	June 30, 2017	Additions	Retirements	June 30, 2018	Additions	Retirements	June 30, 2019
Office equipment Less accumulated	\$16,879	\$-	\$-	\$16,879	\$-	\$-	\$16,879
depreciation on office equipment	(8,330)	(1,800)	-	(10,130)	(1,800)	-	(11,930)
Software Less accumulated	1,213,500	-	-	1,213,500	-	-	1,213,500
depreciation on software	(1,213,500)	-	-	(1,213,500)	-	-	(1,213,500)
	\$ 8,549	\$ (1,800)	\$ -	\$ 6,749	\$ (1,800)	\$ -	\$ 4,949

Note 5 - State Agency Transactions

Due To/From Other State Agencies and Other State Funds

Amounts due from/to other state agencies and other state funds are as follows as of June 30, 2019 and 2018:

		2019	2	018
Due To Other State Agencies				
Information Technology Department	\$	7,848	\$	7,280
Office of Administrative Hearings		-		33
Office of Attorney General		1,288		7,157
Office of Management and Budget		150		69
Rough Rider Industries		137		-
Total due to other state agencies	\$	9,424	\$ 1	4,539
Due From Other State Agencies				
Public Employees Retirement System	\$	-	\$	174
Due To Other State Funds	.		¢	
General Fund	\$45	5,263,216	\$	-

Due to/from other state agencies 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. Due to other state funds represents the statutorily defined earnings of the Legacy Fund for the 2017-19 biennium that is required by the State Constitution to be transferred to the general fund at the end of the biennium.

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 TFFR members. Rent expense totaled \$87,766 annually, for fiscal years 2019 and 2018. Minimum payments under the lease for fiscal 2020 are \$88,365 annually.

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, 2019 and 2018 are summarized as follows:

North Dakota Retirement and Investment Office

Notes to Combined Financial Statements June 30, 2019 and 2018

				Julie 30	, 2017 and 2018
	Beginning Balance 7/1/2018	Additions	Reductions	Ending Balance 6/30/2019	Amounts Due Within One Year
Accrued Leave	\$196,079	\$149,667	(\$151,519)	\$194,227	\$126,078
	Beginning Balance 7/1/2017	Additions	Reductions	Ending Balance 6/30/2018	Amounts Due Within One Year
Accrued Leave	\$176,864	\$144,638	(\$125,423)	\$196,079	\$117,453

Pension and Investment Trust Funds liquidate the accrued annual leave.

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, 2019 and 2018, the number of participating employer units was 213 and 214, respectively, consisting of the following:

-	June 30, 2019	June 30, 2018
Public School Districts	175	176
County Superintendents	6	6
Special Education Units	19	19
Vocational Education Units	4	4
Other	9	9
Total	213	214

TFFR's membership consisted of the following:

	2019	2018
Retirees and beneficiaries currently receiving benefits	8,918	8,743
Terminated employees - vested	1,657	1,623
Terminated employees - nonvested	1,035	971
Total	11,610	11,337
Current employees		
Vested	7,936	7,696
Nonvested	3,239	3,185
Total	11,175	10,881

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 $70\frac{1}{2}$. 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 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 5.46% and 9.15% for the years ended June 30, 2019 and 2018, 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, 2019 and 2018, TFFR had net realized gains of \$66,548,800 and \$108,984,395, respectively.

Net Pension Liability

The components of the net pension liability of TFFR at June 30, 2019 and 2018 (expressed in thousands), were as follows:

	Ju	ne 30, 2019	June 30, 2018		
Total pension liability	\$	3,993,424	\$	3,863,515	
Plan fiduciary net position		(2,616,171)		(2,530,657)	
Net pension liability (NPL)	\$	1,377,253	\$	1,332,858	
Plan fiduciary net position as a					
percentage of the total pension liability		65.5%		65.5%	

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of July 1, 2019 and 2018, using the following actuarial assumptions:

Valuation date	July 1, 2019	July 1, 2018
Inflation	2.75%	2.75%
Salary increases	4.25% to 14.50%; varying by service,	4.25% to 14.50%; varying by service,
	including inflation and productivity	including inflation and productivity
Cost of living adjustments	None	None
Investment rate of return	7.75% net of investment expenses,	7.75% net of investment expenses,
	including inflation	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, 2019 and 2018 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 July 1, 2019 and 2018 are summarized in the following tables:

2019		Long-Term Expected
	Target	Real Rate of
	Allocation	Return
Global Equity	58.0%	6.9%
Global Fixed Income	23.0%	2.1%
Global Real Assets	18.0%	5.4%
Cash Equivalents	1.0%	0.0%
2018		Long-Term
		Expected
	Target	Real Rate of
Asset Class	Allocation	Return
		Itetain
Global Equity	58.0%	6.7%
Global Equity Global Fixed Income	58.0% 23.0%	
1.2		6.7%

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, 2019 and 2018. 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, 2019 and 2018 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, 2019 and 2018. 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, 2019 and 2018.

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:

2019			
	1% Decrease	Current Discount	1% Increase
	(6.75%)	Rate (7.75%)	(8.75%)
Employers' net pension liability	\$ 1,859,994,289	\$ 1,377,253,104	\$ 976,082,834
2018			
	1% Decrease	Current Discount	1% Increase
	(6.75%)	Rate (7.75%)	(8.75%)
Employers' net pension liability	\$ 1,799,744,383	\$ 1,332,858,315	\$ 944,554,161

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 postretirement 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 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.

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:

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.

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, 2019 and 2018, RIO reported a liability of \$2,704,103 and \$2,629,203, respectively, for its proportionate share of the net pension and OPEB liability. These amounts are included in the accrued liabilities in the statements of net position. The net pension and OPEB liability was measured as of June 30, 2018 and 2017, 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, 2018, RIO's pension plan proportion was 0.153507 percent and as of June 30, 2017, was 0.156317 percent. RIO's OPEB plan proportion was 0.144121 percent as of June 30, 2018, and 0.147503% as of June 30, 2017.

RIO recognized pension and OPEB expense of \$345,458 and \$405,602 for the years ended June 30, 2019 and 2018, respectively. At June 30, 2019 and 2018, RIO reported deferred outflows of resources and deferred inflows of resources related to pensions and OPEB from the following sources:

	Deferred Outflows of Resources					Inflows of urces		
		2019		2018	2019			2018
Differences between expected and actual experience	\$	10,258	\$	14,934	\$	90,482	\$	15,088
Changes in assumptions Net differences between projected and actual earnings on plan investments		944,466 -	1	,041,506 33,791		36,976 15,046		56,669 4,411
Changes in proportion and differences between employer contributions and proportionate share of contributions		96,731		138,324		29,040		268
Employer contributions subsequent to the measurement date		130,831		129,449				
Total	\$ 1	,182,286	\$1	,358,004	\$	171,544	\$	76,436

Deferred outflows of resources related to pensions and OPEB resulting from employer contributions subsequent to the measurement date in the amount of \$130,831 will be recognized as a reduction of the net pension liability in the year ended June 30, 2020.

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	
2020	\$ 302,482
2021	267,407
2022	198,444
2023	105,306
2024	5,670
Thereafter	602
	\$ 879,911

Actuarial assumptions

The total pension and OPEB liabilities in the July 1, 2018 and 2017 actuarial valuation were determined using the following actuarial assumptions, applied to all periods included in the measurement:

2018 – Pension Plan

Inflation		2.50%			
Salary increases	Service at Beginning of Year: 0 1 2	State Employee 12.00% 9.50% 7.25%	Non-State Employee 15.00% 10.00% 8.00%		
	Age*				
	Under 30	7.25%	10.00%		
	30 - 39	6.50%	7.50%		
	40 - 49	6.25%	6.75%		
	50 - 59	5.75%	6.50%		
	60+	5.00%	5.25%		

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

Investment rate of return Cost-of-living adjustments		7.75%, net of investment expenses None
2017 – Pension Plan Inflation		3.50%
Salary increases	Service at Beginning of Year: 0 1 2	Increase Rate: 15.00% 10.00% 8.00%
	Age* Under 36 36 - 40 41 - 49 50+	8.00% 7.50% 6.00% 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

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%.

June 30, 2019 and 2018

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, 2018 and 2017, 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.

2018 and 2017 - OPEB Plan	
Inflation	2.50%
Salary increase	Not applicable
Investment Rate of Return	7.50%, 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 long-term expected rate of return on pension and OPEB plan investments was determined using a buildingblock 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:

		Long-Term
		Expected
	Target	Real Rate of
Asset Class	Allocation	Return
Global Equity	57%	6.8%
Global Fixed Income	23%	1.5%
Global Real Assets	20%	5.1%
2018 - Pension Plan		
		Long-Term
		Expected
	Target	Real Rate of
Asset Class	Allocation	Return
Global Equity	57%	6.7%
Global Fixed Income	22%	1.0%
Global Real Assets	20%	5.2%
Cash Equivalents	1%	0.0%

2019 - Pension Plan

		Long-Term
		Expected
	Target	Real Rate of
Asset Class	Allocation	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%	1.5%

2019 - OPEB Plan

2018 - OPEB Plan

		Long-Term
		Expected
	Target	Real Rate of
Asset Class	Allocation	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%

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, 2018 and 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).

For the purpose of the 2018 valuation, the expected rate of return on pension plan investments is 7.75%, the municipal bond rate is 3.62%, and the resulting Single Discount Rate is 6.32%. For the purpose of the 2017 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 OPEB liability for both 2018 and 2017 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, 2018, 2017 and 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 benefits of 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 for both years.

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:

2019			
	1% Decrease	Current Discount	1% Increase
	(5.32%)	Rate (6.32%)	(7.32%)
RIO's net pension liability	\$ 3,520,141	\$ 2,590,598	\$ 1,814,924
	1% Decrease	Current Discount	1% Increase
	(6.5%)	Rate (7.5%)	(8.5%)
RIO's net OPEB liability	143,611	113,505	87,696
2018			
	1% Decrease	Current Discount	1% Increase
	(5.44%)	Rate (6.44%)	(7.44%)
RIO's net pension liability	\$ 3,410,833	\$ 2,512,527	\$ 1,765,175
	1% Decrease	Current Discount	1% Increase
	(6.5%)	Rate (7.5%)	(8.5%)
RIO's net OPEB liability	146,065	116,676	91,486

Sensitivity for Healthcare Cost Trend Rates

2019

The benefit provided by the North Dakota retiree health insurance credit fund is a fixed dollar subsidy and is not affected by the healthcare cost trend. Therefore, a sensitivity analysis was not performed.

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 at 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. The SIB became a party to a Settlement Agreement dated April 10, 2019, as a Term Lender in the General Motors bankruptcy proceeding. The liability will be borne by other parties, so no liability was accrued by the SIB as of June 30, 2019. On July 15, 2019, in the Tribune proceeding, the Litigation Trustee filed a Notice of Appeal to the Second Circuit, appealing the various judgments of the U.S. District Court that dismissed his claims against defendants in the Action and denying leave to amend his complaint to add a constructive fraudulent transfer claim. It is expected that briefing of all the legal issues before the Second Circuit will occur in late 2019 and early 2020. Accordingly, no liability has been recorded for this case.

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)

	 2019	2018	2017		2016	2015		2014
Total pension liability								
Service cost	\$ 77,756	\$ 78,041	\$ 75,476	\$	68,239	\$ 60,618	\$	56,752
Interest	296,876	287,375	276,412		265,440	249,064		237,821
Changes of benefit terms	-	-	-		-	-		-
Differences between expected and actual experience	(23,495)	(27,939)	(10,749)		(8,093)	2,209		9,347
Changes of assumptions	-	-	-		-	171,325		-
Benefit payments, including refunds of member contributions	 (221,228)	(207,979)	(196,516)		(185,969)	(172,239)		(162,259)
Net change in total pension liability	129,909	129,498	144,623		139,617	310,977		141,661
Total pension liability - beginning	 3,863,515	3,734,017	3,589,394	3	3,449,777	3,138,800		2,997,139
Total pension liability - ending (a)	\$ 3,993,424	\$3,863,515	\$3,734,017	\$3	3,589,394	\$3,449,777	\$.	3,138,800
Plan fiduciary net position								
Contributions - employer	\$ 89,445	\$ 86,676	\$ 86,059	\$	82,840	\$ 78,422	\$	62,355
Contributions - member	82,429	79,878	79,309		76,343	72,268		56,555
Contributions - purchased service credit	1,917	2,181	2,553		2,768	1,601		2,034
Contributions - other	159	194	236		45	172		48
Net investment income	135,043	211,345	266,688		8,239	73,205		294,246
Benefit payments, including refunds of member contributions	(221,228)	(207,979)	(196,516)		(185,969)	(172,239)		(162,259)
Administrative expenses	 (2,251)	(2,129)	(2,173)		(1,852)	(1,923)		(1,586)
Net change in plan fiduciary net position	85,514	170,166	236,156		(17,586)	51,506		251,393
Plan fiduciary net position - beginning **	 2,530,657	2,360,491	2,124,335	2	2,141,921	2,090,415		1,839,584
Plan fiduciary net position - ending (b)	\$ 2,616,171	\$2,530,657	\$2,360,491	\$2	2,124,335	\$2,141,921	\$ 2	2,090,977
Plan's net pension liability - ending (a) - (b)	\$ 1,377,253	\$1,332,858	\$1,373,526	\$1	,465,059	\$1,307,856	\$	1,047,823
Plan fiduciary net position as a percentage of the total pension	 							
liability	65.5%	65.5%	63.2%		59.2%	62.1%		66.6%
Covered payroll	\$ 701,528	\$ 679,809	\$ 674,971	\$	649,725	\$ 615,105	\$	580,053
Plan's net pension liability as a percentage of covered payroll	196.3%	196.1%	203.5%		225.5%	212.6%		180.6%

Notes to Schedule:

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

** 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.

Fiscal Year	Actuarially determined contribution		in ro the a det	tributions elation to actuarially cermined atribution	de	tribution ficiency excess)	-	overed	Contributions as a percentage of covered payroll
2010 2011 2012 2013	\$	52,053 65,113 69,374 52,396	\$	39,837 44,545 46,126 59,301	\$	12,216 20,568 23,248 (6,905)	\$	482,868 509,091 527,156 551,656	8.25% 8.75% 8.75% 10.75%
2014 2015 2016		59,513 71,168 84,724		62,355 78,422 82,840		(2,842) (7,254) 1,884		580,053 615,105 649,725	10.75% 12.75% 12.75%
2017 2018 2019		89,231 88,307 90,778		86,059 86,676 89,445		3,172 1,631 1,333		674,971 679,809 701,528	12.75% 12.75% 12.75%

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

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	24 years
Asset valuation method	5-year smoothed market
Inflation	2.75%; decreased from 3% 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.

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

ANNUAL MONEY-WEIGHTED RATE OF RETURN, NET OF INVESTMENT EXPENSES

	2019	2018	2017	2016	2015	2014	2013
Annual money-weighted rate of							
return, net of investment expense	5.46%	9.15%	12.81%	0.39%	3.56%	16.35%	13.60%

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

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

	2019	2018	2017	2016	2015
RIO's proportion of NDPERS net pension liability (asset)	0.153507%	0.156317%	0.152969%	0.145546%	0.121849%
RIO's proportion of NDPERS net OPEB liability (asset)	0.144121%	0.147503%			
RIO's proportionate share of NDPERS net pension liability (asset)	\$ 2,591	\$ 2,513	\$ 1,491	\$ 990	\$ 773
RIO's proportionate share of NDPERS net OPEB liability (asset)	114	117			
RIO's covered payroll	\$ 1,567	\$ 1,596	\$ 1,507	\$ 1,377	\$ 1,026
RIO's proportionate share of NDPERS net pension liability (asset) as a percentage of its covered payroll	165.35%	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	7.28%	7.31%			
NDPERS Plan fiduciary net position as a percentage of the total pension liability	62.80%	61.98%	70.46%	77.15%	77.70%
NDPERS Plan fiduciary net position as a percentage of the total OPEB liability	61.89%	59.78%			

*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.

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

	2019	2018	2017	2016	2015	2014
RIO's Statutorily required pension contributions RIO's Statutorily required OPEB contributions	\$ 113 18	\$ 112 18	\$ 114 18	\$ 107	\$98	\$ 73
RIO's pension contributions in relation to the statutory required contribution	113	112	114	107	98	73
RIO's OPEB contributions in relation to the statutory required contribution	18	18	18			
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
RIO's Covered payroll	\$1,584	\$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%	7.12%
RIO's OPEB contributions as a percentage of covered payroll	1.14%	1.14%	1.14%			

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

	P ension P ool P articip	ants				Insurance PoolP	articipants					
	P ublic Employees Retirement System	B is marck City Employee Pension Plan	B is marck City P o lice P ens io n P lan	City of Grand Forks Employee Pension Plan	City of Grand Forks Park District	Workforce Safety& Insurance	State Fire & Tornado	State Bonding	P etro leum Tank Release Comp. Fund	Insurance Regulatory Trust Fund	Cultural Endo wm ent Fund	R is k Mgm t
Assets:												
Investments												
Glo bal equities Glo bal fixed inco me	\$ 1,833,414,529 709,190,088	\$49,404,652 34,333,280	\$21,887,634 11,722,774	\$41,894,381 15,888,990	\$3,997,403 1,764,054	\$461,780,018 1,236,575,110	\$7,954,401 12,389,926	\$0 1,959,837	\$0 2,943,031	\$ 1,885,842 2,159,203	\$261,358 175,687	\$ 1,473,923 3,141,696
Global real assets	581,869,362	20,136,760	8,047,190	9,823,761	1,764,034	340,272,112	12,389,926	1,959,857	2,943,031	2,159,203	23,891	3,141,090
Cash equivalents	18,590,413	321,335	78,715	653,416	14,962	16,110,908	2,270,428	1,621,474	2,990,789	2,163,394	14,038	245,073
To tal inves tments	3,143,064,392	104,196,027	41,736,313	68,260,548	7,153,012	2,054,738,148	22,614,755	3,581,311	5,933,820	6,208,439	474,974	4,860,692
Invested sec lending collateral	10,241,786	374,163	139,760	228,950	31,006	6,100,164	70,368	8,340	12,389	13,623	1,436	17,799
Investment income receivable	9,865,697	3 2 1,2 19	126,662	158,753	23,415	10,662,254	146,703	28,111	60,415	10,343	337	48,931
Operating Cash	70,823	-	-	-	-	43,795	1,278	1,563	963	1,261	202	1,168
Miscellaneous receivable	7,037	-	-	-	-	4,647	52	8	В	5	1	11
Due from other state agencies	-	-	-	-	-	-	-	-	-	-	-	-
Totalassets	3,163,249,735	104,891,409	42,002,735	68,648,251	7,207,433	2,071,549,008	22,833,156	3,619,333	6,007,600	6,233,671	476,950	4,928,601
Deferred outflows of resources Related to pensions	137,835	-	-		-	92,624	1,120	165	326	88	21	279
Liabilities:												
Investment expenses payable	1,036,493	46,885	18,660	15,840	2,368	517,008	4,797	741	1,131	740	28	540
Securities lending collateral	10,241,786	374,163	139,760	228,950	31,006	6,100,164	70,368	8,340	12,389	13,623	1,436	17,799
Accounts payable	68,450	-	-	-	-	44,687	505	79	133	48	10	106
Accrued expenses	361,740	5,777	2,328	3,572	- 389	248,338	3,366	454	923	228	56	778
Miscellaneous payable Due to other state funds	-	5,777	2,328	3,572	389	-	-		-	-		-
Due to other state agencies	392		-	-	-	259	3	-	1	-	-	1
To tal liabilities	11,708,861	426,825	160,748	248,362	33,763	6,910,456	79,039	9,614	14,577	14,639	1,530	19,224
Deferred inflows of resources												
Related to pensions	\$ 19,243	\$0	\$0	\$0	\$0	\$ 13,592	\$ 185	\$25	\$50	\$7	\$3	\$46
Fiduciary net position held in trust for external investment pool participants	\$ 3,151,659,466	\$ 104,464,584	\$ 41,841,987	\$68,399,889	\$ 7,173,670	\$2,064,717,584	\$ 22,755,052	\$ 3,609,859	\$ 5,993,299	\$ 6,219,113	\$ 475,438	\$ 4,909,610
Each participant unit is valued at \$ 1.00 Participant units outstanding	3,151,659,466	104,464,584	41,841,987	68,399,889	7,173,670	2,064,717,584	22,755,052	3,609,859	5,993,299	6,219,113	475,438	4,909,610

North Dakota Retirement and Investment Office Combining Statement of Net Position – Investment Trust Funds – Fiduciary Funds June 30, 2019 (with Comparative Totals for 2018)

R is k	ND			Cityof	Cityof		Lewis & Clark		Job		PERS		
Mgmt	Ass'n.of	PERS	Budget	Bismarck	Fargo	State	Interpre tive		Service	Tobacco	Retiree		
Workers'	Counties	Group	S ta biliza tio n	Deferred	Fargo Do me	Board of	Center	Legacy	o f No rth	P revention and	Health	То	tals
Comp	Fund	Insurance	Fund	Sick Leave	Fund	Medicine	Endowment	Fund	Dakota	ControlFund	Credit Fund	2019	2018
\$ 1,9 19,428	\$ 2,22 1,5 13	\$0	\$0	\$233,945	\$22,440,882	\$498,707	\$263,953	\$3,203,129,265	\$ 19,094,960	\$0	\$84,480,446	\$ 5,758,237,240	\$ 5,205,817,2
3,106,809	3,918,313	28,207,330	115,349,456	505,062	17,458,242	1,809,875	480,083	2,170,475,305	77,780,193	7,972,749	51,472,649	4,510,779,742	4,099,552,5
-	-	-	-	-	4,420,372	46,881	-	923,488,586	-	-	-	1,889,505,508	1,788,156,
155,645	189,199	2,867,344	2,673,336	38,811	447,844	10,907	7,499	255,829,361	409,888	1,324,990	9,404	309,039,173	127,104,5
5,181,882	6,329,025	31,074,674	118,022,792	777,818	44,767,340	2,366,370	751,535	6,552,922,517	97,285,041	9,297,739	135,962,499	12,467,561,663	11,220,630,4
19,080	21,196	183,946	757,197	2,607	139,195	12,084	2,625	19,392,771	-	-	-	37,770,485	40,721,5
5,998	4,028	(7,554)	684,339	1,779	73,292	(3,985)	228	27,837,411	237	2,389	22	50,051,024	38,863,2
1,147	-	-	21,591	-	-	-	-	113,720	-	-	-	257,511	410,2
12	-	-	270	-	-	-	-	14,323	-	-	-	26,379	28,
-	-	-	-	-	-	-	-	-	-	-	-	-	
5,208,119	6,354,249	31,251,066	119,486,189	782,204	44,979,827	2,374,469	754,388	6,600,280,742	97,285,278	9,300,128	135,962,521	12,555,667,062	11,300,653,5
275	-	-	5,766			<u> </u>	-	234,169	-		-	472,668	544
299	1,417	12,076	49,281	201	9,561	782	216	2,917,084	83,874	6,670	102,829	4,829,521	2,279,9
19,080 112	21,196	183,946	757,197 2,580	2,607	139,195	12,084	2,625	19,392,771 137,104	-	-	-	37,770,485 253,814	40,721,5 136,
739	-	-	31,560	-	-	-	-	545,406	-	-	-	1,193,588	130, L,111,
-	348	1,802	51,500	250	2,493	250	250	545,400	5,728	1,614	7,314	32,115	34,0
-	-		-		-,			455,263,216		-	-	455,263,216	
1	-	-	15			<u> </u>		798	-	<u> </u>		1,470	2,5
20,231	22,961	197,824	840,633	3,058	151,249	13,116	3,091	478,256,379	89,602	8,284	110,143	499,344,209	44,286,
\$43	\$0	\$ 0	\$ 3,618	\$0	\$0	\$0	\$0	\$30,661	\$0	\$0	-	67,473	27
5,188,120	\$ 6,331,288	31,053,242	\$ 118,647,704	\$ 779,146	\$ 44,828,578 5	\$ 2,361,353	\$ 751,297	\$ 6,122,227,871	\$ 97,195,676	\$ 9,291,844	\$ 135,852,378	\$ 12,056,728,048	\$ 11,256,882
5,188,120	6,331,288	31,053,242	118,647,704	779,146	44,828,578	2,361,353	751,297	6,122,227,871	97,195,676	9,291,844	135,852,378	12,056,728,048	11,256,882

	Pension Pool Pai	rticipants				Insurance PoolP	articipants					
	Public	Bismarck	Bismarck	Cityof	C ity o f				P etro leum	Insurance		_
	Employees	City	City	Grand Forks	Grand Forks	Work force	State		Tank	Regulatory	Cultural	
	Retirement	Emplo yee	P o lic e	Emplo yee	Park District	Safety &	Fire &	State	Release	Trust	Endo wment	R is k
	System	P ens ion P lan	P ension P lan	P ension P lan	P ension P lan	Insurance	Tornado	Bonding	Comp. Fund	Fund	Fund	Mgmt
Additions:												
Investment income:	e 102.202.227	0 2 7010(1	6 1406 506	6 2 412 720	0 000 000	e	6 071220	¢ 121242	6 101.2.2.0	6 174 407	6 16 0.07	6 252 740
	\$ 103,282,337	\$ 3,701,861	\$ 1,426,526	\$ 2,413,739	\$ 258,536	\$ 86,250,882	\$ 871,338	\$ 121,242	\$ 191,339	\$ 174,407	\$ 16,907	\$ 253,740
Interest, dividends and other income	68,783,166 172,065,503	2,384,963 6,086,824	929,699 2,356,225	1,463,331 3,877,070	167,316 425,852	50,611,227 136,862,109	531,919 1,403,257	80,844 202,086	140,430 331,769	8 1,8 16 256,223	10,871	106,435
Less investment expenses	7,736,583	265,103	106,866	160,844	20,402	3,714,157	34,550	2,556	4,014	3,890	900	6,532
Net investment income	164,328,920	5,821,721	2,249,359	3,716,226	405,450	133,147,952	1,368,707	199,530	327,755	252,333	26,878	353,643
Securities lending activity:												
Securities lending income	271.874	8,461	3,430	6,197	635	144,933	2,144	113	179	280	52	371
Less Securities lending expenses	(54,358)	(1,692)	(686)	(1,239)	(127)	(28,932)	(430)	(24)	(36)	(56)	(12)	(73)
				1050								
Net securities lending income	2 17,5 16	6,769	2,744	4,958	508	116,001	1,7 14	89	143	224	40	298
Purchase of units (\$ 1per unit)	6.000.000	-	-	7,540,108	386.104	53,500,000	1000.000	-	-	5,079,100	-	-
	.,,						,,	10.0 (10				
To tal Additions	170,546,436	5,828,490	2,252,103	11,261,292	792,062	186,763,953	2,370,421	199,619	327,898	5,331,657	26,918	353,941
Deductions:												
Administrative Expenses	519,043	-	-	-	-	304,691	3,608	1,007	1,187	979	670	1,097
Redemption of units (\$1per unit)	41,900,000	500,000	500,000	6,485,051	391,641	44,500,000	2,675,000		500,000	4,750,000	-	400,000
		500.000	500.000	< 105.051	201444		A (B) (0)	1005		1 5 5 0 5 5		101005
Total Deductions	42,419,043	500,000	500,000	6,485,051	391,641	44,804,691	2,678,608	1,007	501,187	4,750,979	670	401,097
Change in fiduciary net position	128,127,393	5,328,490	1,752,103	4,776,241	400,421	141,959,262	(308,187)	198,612	(173,289)	580,678	26,248	(47,156)
Fiduciary net position:												
Beginning 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
End of year	\$ 3,151,659,466	\$ 104,464,584	\$ 41,841,987	\$ 68,399,889	\$ 7,173,670	\$ 2,064,717,584	\$ 22,755,052	\$ 3,609,859	\$5,993,299	\$ 6,219,113	\$ 475,438	\$ 4,909,610

North Dakota Retirement and Investment Office Combining Statement of Changes in Net Position – Investment Trust Funds – Fiduciary Funds Year Ended June 30, 2019 (with Comparative Totals for 2018)

	ol Participants							Individual Investm	ent Accounts				
R is k	ND			City o f	City o f		Lewis &Clark				PERS		
Mgmt	Ass'n of	PERS	Budget	Bismarck	Fargo	State	Interpretive		Job Service	Tobacco	Retiree		
Workers'	Counties	Group	Stabilizatio n	Deferred	FargoDome	Board of	Center	Legacy	o f No rth	P revention and	Health	Tot	a ls
Comp	Fund	Insurance	Fund	Sick Leave	Fund	Medicine	Endowment	Fund	Dakota	ControlFund	Credit Fund	2019	2018
\$ 285,789	\$ 286,310	\$ 603,923	\$ 2,511,852	\$ 33,901	\$ 1,219,139	\$ 60,744	\$ 32,619	\$ 174,927,813	\$ 3,497,989	\$ 1,117,230	\$ 5,197,140	\$ 388,737,303	\$ 527,542,620
102,266	145,905	917,321	2,762,013	17,687	1,034,503	54,930	17,960	47,634,462	3,043,292	113,765	3,371,362	284,507,483	246,166,774
388,055	432,215	1,521,244	5,273,865	51,588	2,253,642	115,674	50,579	322,562,275	6,541,281	1,230,995	8,568,502	673,244,786	773,709,394
6,588	10,924	43,655	165,988	2,152	88,641	4,935	2,240	13,412,391	3 11,65 1	16,826	391,416	26,513,804	21,653,138
381,467	421,291	1,477,589	5,107,877	49,436	2,165,001	110,739	48,339	309,149,884	6,229,630	1,2 14,169	8,177,086	646,730,982	752,056,256
394	578	1,979	7,918	68	5,468	205	75	770,904	_			1,226,258	1,334,400
(78)	(117)	(395)	(1,580)	(14)	(1,089)	(40)	(14)	(154,066)	-	-	-	(245,058)	(266,663
3 16	461	1,584	6,338	54	4,379	165	61	616,838	-	-	-	981,200	1,067,737
1,250,000		219,199,000				-	-	692,568,943	-	-	1,3 19,500	987,842,755	871,266,337
1,631,783	421,752	220,678,173	5,114,215	49,490	2,169,380	110,904	48,400	1,002,335,665	6,229,630	1,2 14,169	9,496,586	1,635,554,937	1,624,390,330
1,119	-	-	17,840	-	-	-	-	928,596	-	-	-	1,779,837	1,669,600
1,800,000		221,225,000			1,965,000			455,263,216	4,645,062	46,280,000	150,000	833,929,970	336,169,172
1801119	-	221225.000	17.840		1,965,000	-	-	456,191,812	4,645,062	46,280,000	150.000	835,709,807	337,838,772
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(169,336)	421,752	(546,827)	5,096,375	49,490	204,380	110,904	48,400	546,143,853	1,584,568	(45,065,831)	9,346,586	799,845,130	1,286,551,558
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	9,970,331,36
\$ 5,188,120	\$ 6.331.288	\$ 31,053,242	\$ 118,647,704	\$ 779.146	\$ 44,828,578	\$ 2,361,353	\$ 751297	\$ 6,122,227,871	\$ 97 195 676	\$ 9,291,844	\$ 135,852,378	\$ 12,056,728,048	\$ 11,256,882,918

North Dakota Retirement and Investment Office Pension and Investment Trust Funds – Schedule of Administrative Expenses Years Ended June 30, 2019 and 2018

	Pension Trust		Investment Trust		
	2019	2018	2019	2018	
Salaries and wages:					
Salaries and wages	\$ 832,908	\$ 792,299	\$ 836,638	\$ 792,288	
Fringe benefits	508,007	568,887	409,387	419,698	
Total salaries and wages	1,340,915	1,361,186	1,246,025	1,211,986	
Operating expenses:					
Travel	24,162	15,062	30,646	35,114	
Supplies	3,167	2,266	1,563	932	
Postage and Mailing Services	35,178	36,993	14,833	13,593	
Printing	12,426	15,606	3,470	4,500	
Small Office Equipment and Furniture	14,910	2,908	11,744	1,339	
Insurance	398	387	228	223	
Rent/Lease of Building Space	55,396	55,396	32,370	32,370	
Repairs	917	155	536	75	
Information Technology and Communications	74,217	71,000	17,519	17,863	
IT Contractual Services	156,553	109,750	447,097	443,184	
Professional Development	20,808	8,184	12,693	2,878	
Operating Fees and Services	16,807	15,106	20,655	21,014	
Professional Fees and Services	10,763	15,629	6,339	22,771	
Consultant Services	263,269	198,099	153,516	81,025	
Total operating expenses	688,971	546,541	753,209	676,881	
Pension trust portion of investment program expenses	219,397	219,267	(219,397)	(219,267)	
Depreciation	1,800	1,800			
Total administrative expenses	2,251,083	2,128,794	1,779,837	1,669,600	
Less - nonappropriated items:					
Consultant Services	263,269	198,099	153,516	81,025	
Other operating fees paid under continuing appropriation	132,871	125,270	498,969	509,663	
Depreciation	1,800	1,800	-	-	
Accrual adjustments to employee benefits	196,388	255,922	147,218	168,895	
Total nonappropriated items	594,328	581,091	799,703	759,583	
Total appropriated expenditures	\$ 1,656,755	\$ 1,547,703	\$ 980,134	\$ 910,017	
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North Dakota Retirement and Investment Office Pension and Investment Trust Funds – Schedule of Consultant Expenses Years Ended June 30, 2019 and 2018

	Pensio	n Trust	Investm	ent Trust	
	2019	2018	2019	2018	
Actuary fees: Segal Company	\$ 108,000	\$ 71,499	\$ -	\$ -	
Auditing/Accounting fees: CliftonLarsonAllen LLP	97,514	82,527	30,587	29,073	
Disability consulting fees: Sanford Health	350	425	-	-	
Legal fees:					
Office of Administrative Hearings	3,383	-	-	-	
K&L Gates LLP	12,880	16,541	17,066	21,646	
Kasowitz, Benson, Torres & Friedman	239	197	313	309	
Jackson Walker LLP	3,105	3,105	54,804	9,316	
ND Attorney General	37,798	23,805	50,746	20,681	
Total legal fees:	57,405	43,648	122,929	51,952	
Total consultant expenses	\$ 263,269	\$ 198,099	\$ 153,516	\$ 81,025	

North Dakota Retirement and Investment Office Pension and Investment Trust Funds - Schedule of Investment Expenses

Years	Ended	June 3	30,	2019	and 2018

	Pension Trust		Investment Trust		
	2019	2018	2019	2018	
Investment managers' fees:					
Global equity managers	\$ 1,367,498	\$ 1,380,401	\$ 1,802,596	\$ 1,794,894	
Domestic large cap equity managers	730,141	(368,098)	4,636,321	557,670	
Domestic small cap equity managers	429,127	586,340	1,817,606	1,544,538	
International equity managers	888,364	954,958	6,526,839	6,229,944	
Emerging markets equity managers	607,541	697,607	987,011	1,124,677	
Domestic fixed income managers	1,137,802	1,593,550	10,833,676	11,337,399	
Below investment grade fixed income managers	2,446,530	1,953,550	3,346,917	2,675,936	
Diversified real assets managers	-	-	5,770,890	4,036,212	
International fixed income managers	-	270,428		311,924	
Real estate managers	2,258,800	2,660,866	5,412,650	5,965,804	
Infrastructure managers	1,920,619	1,316,541	2,521,180	1,681,789	
Timber managers	380,628	395,760	462,600	480,991	
Private equity managers	1,667,745	1,513,944	1,953,934	1,773,739	
Short term fixed income managers	-,		194,551	122,965	
Cash & equivalents managers	30,119	36,561	175,858	165,053	
Balanced account managers	-	-	979,322	965,154	
Total investment managers' fees	\$13,864,914	\$ 12,992,408	\$47,421,951	\$ 40,768,689	
Custodian fees	235,778	233,938	1,076,406	927,794	
Investment consultant fees	129,878	150,251	482,208	566,574	
SIB Service Fees	-	-	81,815	82,764	
Total investment expenses	\$14,230,570	\$ 13,376,597	\$49,062,380	\$ 42,345,821	
Reconciliation of investment expenses to financial stat	omonte				
Acconcination of investment expenses to infancial stat	2019	2018	2019	2018	
Investment expenses as reflected in the financial statements	\$ 6,272,801	\$ 5,352,945	\$26,513,804	\$21,653,138	
Plus investment management fees included in investment inc	ome				
Domestic large cap equity managers	117,130	94,592	686,854	364,567	
Domestic small cap equity managers	-	-	-	-	
International equity managers	240,154	273,564	1,664,052	1,603,690	
Emerging markets equity managers	607,541	697,608	987,011	1,124,677	
Domestic fixed income managers	749,012	1,236,026	6,550,173	7,619,590	
Below investment grade fixed income managers	1,986,029	1,541,521	2,782,655	2,133,969	
Diversified real assets managers	-	-	3,989,293	2,037,750	
Real estate managers	829,250	1,514,375	1,174,455	2,110,333	
Infrastructure managers	1,380,280	758,699	1,811,371	974,220	
Timber managers	380,628	395,760	462,600	480,991	
Private equity managers	1,667,745	1,511,507	1,953,932	1,770,886	
Cash equivalents managers	-	-	160,065	140,122	
Balanced account managers	-	-	326,115	331,888	
Investment expenses per schedule	\$14,230,570	\$ 13,376,597	\$49,062,380	\$ 42,345,821	

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 2019 Expenses	Fiscal 2018 Expenses	Unexpended Appropriations
All Fund Types:						
Salaries and wages	\$ 4,425,570	\$ -	\$ 4,425,570	\$ 2,243,334	\$ 2,148,355	\$ 33,881
Operating expenses	862,484	-	862,484	393,555	309,365	159,564
Contingency	52,000		52,000			52,000
Total	\$ 5,340,054	\$ -	\$ 5,340,054	\$ 2,636,889	\$ 2,457,720	\$ 245,445

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

Reconciliation of Administrative Expenses to Appropriated Expenditures

	2019	2018
Administrative expenses as reflected in the financial statements	\$4,030,920	\$ 3,798,394
Less:		
Consulting Services*	(416,785)	(279,124)
Other operating fees paid under continuing appropriations*	(631,840)	(634,933)
Depreciation expense	(1,800)	(1,800)
Changes in benefit accrual amounts	(343,606)	(424,817)
Total appropriated expenses	\$ 2,636,889	\$ 2,457,720

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

Special Comments Requested by the Legislative Audit and Fiscal Review Committee Year Ended June 30, 2019

The Legislative Audit and Fiscal Review Committee requires that certain items be addressed by auditors performing audits of state agencies. These items and our responses are as follows:

Audit Report Communications

1. What type of opinion was issued on the financial statements?

Unmodified

2. Was there compliance with statutes, laws, rules, regulations under which the agency was created and is functioning?

Yes

3. Was internal control adequate and functioning effectively?

Yes

4. Were there any indications of lack of efficiency in financial operations and management of the agency?

No

5. Has action been taken on findings and recommendations included in prior year reports?

There were no prior year findings or recommendations.

6. Was a management letter issued? If so, provide a summary below, including any recommendations and the management response.

No

Audit Committee Communications

1. Identify any significant changes in accounting policies, any management conflicts of interest, any contingent liabilities, or any significant unusual transactions.

For the year ended June 30, 2019, no new accounting policies were adopted and the application of existing policies was not changed.

2. Identify any significant accounting estimates, the process used by management to formulate the accounting estimates, and the basis for the auditor's conclusions regarding the reasonableness of those estimates.

The valuation of alternative investments, including private equity and real asset investments, are a management estimate which is primarily based upon net asset values reported by the investment managers and comprise 16% of the total investment portfolio. The values for these investments are reported based upon the most recent financial data available and are adjusted for cash flows through June 30, 2019. Our audit procedures validated this approach through the use of confirmations sent directly to a sample of investment managers and the review of the most recent audited financial statements for these funds. Furthermore, we reviewed management's estimate and found it to be reasonable.

The actuarial valuation was based on the actuarial assumptions and methods adopted by the Board, including an actuarial expected investment rate of return of 7.75% per annum compounded annually. The valuation takes into account all of the promised benefits to which members are entitled as of July 1, 2019 as required by the North Dakota Century Code. The valuation provides certain information required by GASB to be disclosed in the financial statements. Additionally, the valuation is used to determine the adequacy of the current employer contribution rate. Our audit procedures included reviewing the actuarial valuation and related assumptions used therein and we believe the estimate to be reasonable.

3. Identify any significant audit adjustments.

None

4. Identify any disagreements with management, whether or not resolved to the auditor's satisfaction, relating to financial accounting, reporting, or auditing matters that could be significant to the financial statements.

None

5. Identify any significant difficulties encountered in performing the audit.

None

6. Identify any major issues discussed with management prior to retention.

None

7. Identify any management consultations with other accounts about auditing and accounting matters.

None

8. Identify any high-risk information technology systems critical to operations based on the auditor's overall assessment of the importance of the system to the agency and its mission or whether any exceptions identified in the six audit report questions addressed above are directly related to the operations of an information technology system.

Based on the audit procedures performed, the Retirement and Investment Office's critical information technology system is the CPAS system. There were no exceptions identified that were directly related to this application.

This report is intended solely for the information and use of the audit committee, management, the Legislative Audit and Fiscal Review Committee, and other state officials, and is not intended to be and should not be used by anyone other than these specified parties.

Clifton Larson Allen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland October 30, 2019



CliftonLarsonAllen LLP CLAconnect.com

State Investment Board Teachers' Fund for Retirement North Dakota Retirement and Investment Office Bismarck, North Dakota

We have audited the financial statements of the North Dakota Retirement and Investment Office (RIO) as of and for the year ended June 30, 2019, and have issued our report thereon dated October 30, 2019. We have previously communicated to you information about our responsibilities under auditing standards generally accepted in the United States of America, as well as certain information related to the planned scope and timing of our audit. Professional standards also require that we communicate to you the following information related to our audit.

Significant audit findings

Qualitative aspects of accounting practices

Accounting policies

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by RIO are described in Note 1 to the financial statements.

No new accounting policies were adopted and the application of existing policies was not changed during fiscal year 2019.

We noted no transactions entered into by RIO during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. There were significant estimates in the valuation of alternative investments and the calculation of the actuarial information included in the footnotes and required supplementary information.

The valuation of alternative investments, including private equity and real asset investments, are a management estimate which is primarily based upon net asset values reported by the investment managers and comprise 16% of the total investment portfolio. The values for these investments are reported based upon the most recent financial data available and are adjusted for cash flows through June 30, 2019. Our audit procedures validated this approach through the use of confirmations sent directly to a sample of investment managers and the review of the most recent audited financial statements for these sampled funds. Furthermore, we reviewed management's estimate and found it to be reasonable.



The actuarially calculated information was based on the assumptions and methods adopted by the Board, including an expected investment rate of return of 7.75% per annum compounded annually. The valuation takes into account all of the promised benefits required by the Retirement Code to which members are entitled as of July 1, 2019. Our audit procedures included reviewing the actuarial valuation and related assumptions used therein and we believe the estimate to be reasonable.

Financial statement disclosures

Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. There were no particularly sensitive financial statement disclosures.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties encountered in performing the audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Uncorrected misstatements

Professional standards require us to accumulate all misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management did not identify and we did not notify them of any uncorrected financial statement misstatements.

Corrected misstatements

Management did not identify and we did not notify them of any financial statement misstatements detected as a result of audit procedures.

Disagreements with management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditors' report. No such disagreements arose during our audit.

Management representations

We have requested certain representations from management that are included in the attached management representation letter dated October 30, 2019.

Management consultations with other independent accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to RIO's financial statements or a determination of the type of auditors' opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Significant issues discussed with management prior to engagement

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to engagement as RIO's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our engagement.

Other information in documents containing audited financial statements

With respect to the required supplementary information (RSI) accompanying the financial statements, we made certain inquiries of management about the methods of preparing the RSI, including whether the RSI has been measured and presented in accordance with prescribed guidelines, whether the methods of measurement and preparation have been changed from the prior period and the reasons for any such changes, and whether there were any significant assumptions or interpretations underlying the measurement or presentation of the RSI. We compared the RSI for consistency with management's responses to the foregoing inquiries, the basic financial statements, and other knowledge obtained during the audit of the basic financial statements. Because these limited procedures do not provide sufficient evidence, we did not express an opinion or provide any assurance on the RSI.

With respect to the schedules of administrative expenses, consultant expenses, investment expenses, and appropriations – budget basis – fiduciary funds (collectively, the supplementary information) accompanying the financial statements, on which we were engaged to report in relation to the financial statements as a whole, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period or the reasons for such changes, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves. We have issued our report thereon dated October 30, 2019.

Other information is being included in documents containing the audited financial statements and the auditors' report thereon. Our responsibility for such other information does not extend beyond the financial information identified in our auditors' report. We have no responsibility for determining whether such other information is properly stated and do not have an obligation to perform any procedures to corroborate other information contained in such documents. As required by professional standards, we read the introductory, investment, actuarial and statistical sections of the comprehensive annual financial report (the other information) in order to identify material inconsistencies between the audited financial statements and the other information. We did not identify any material inconsistencies between the other information and the audited financial statements.

Our auditors' opinion, the audited financial statements, and the notes to financial statements should only be used in their entirety. Inclusion of the audited financial statements in a document you prepare, such as an annual report, should be done only with our prior approval and review of the document.

* * *

North Dakota Retirement and Investment Office Page 4

This communication is intended solely for the information and use of the State Investment Board, the Board of the Teachers' Fund for Retirement and management of RIO and is not intended to be, and should not be, used by anyone other than these specified parties.

Clifton Larson Allen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland October 30, 2019



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

October 30, 2019

CliftonLarsonAllen LLP 1966 Greenspring Drive, Suite 300 Timonium, MD 21093

This representation letter is provided in connection with your audit of the financial statements of North Dakota Retirement and Investment Office (RIO), which comprise the fiduciary net position of the entity as of June 30, 2019, and the related changes in fiduciary net position for the year then ended, and the related notes to the financial statements, for the purpose of expressing opinions on whether the financial statements are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP).

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement.

We confirm, to the best of our knowledge and belief, as of October 30, 2019, the following representations made to you during your audit.

Financial Statements

- We have fulfilled our responsibilities, as set out in the terms of the Contract between the State of North Dakota and CliftonLarsonAllen LLP dated March 7, 2018, for the preparation and fair presentation of the financial statements in accordance with U.S. GAAP. The financial statements include all properly classified funds and other financial information of the primary government and all component units required by generally accepted accounting principles to be included in the financial reporting entity.
- 2. We acknowledge and have fulfilled our responsibility for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.
- 3. We acknowledge our responsibility for the design, implementation, and maintenance of internal control to prevent and detect fraud.
- 4. All significant plan amendments, adopted during the period or subsequent to the date of the financial statements, and their effects on benefits and financial status have been disclosed in the financial statements.
- 5. The values of non-readily marketable investments represent good faith estimates of fair value. The methods and significant assumptions used result in a measure of fair value appropriate for financial measurement and disclosure purposes.
- 6. Significant estimates have been appropriately accounted for and disclosed in accordance with the requirements of U.S. GAAP. Significant estimates are estimates at the financial statement date that could change materially within the next year.
- 7. No events, including instances of noncompliance, have occurred subsequent to the financial statement date and through the date of this letter that would require adjustment to, or disclosure in, the financial statements.

- 8. We have not identified or been notified of any uncorrected financial statement misstatements.
- 9. The effects of all known actual or possible litigation, claims, and assessments have been accounted for and disclosed in accordance with U.S. GAAP.
- 10. Guarantees, whether written or oral, under which the entity is contingently liable, if any, have been properly recorded or disclosed in accordance with U.S. GAAP.
- 11. We have no plans or intentions that may materially affect the carrying value or classification of assets and liabilities.
- 12. With respect to actuarial assumptions and valuations:
 - a. Management agrees with the actuarial methods and assumptions used by the actuary for funding purposes and for determining the total pension liability and has no knowledge or belief that would make such methods or assumptions inappropriate in the circumstances. We did not give any, nor cause any, instructions to be given to RIO's actuary with respect to values or amounts derived, and we are not aware of any matters that have impacted the independence or objectivity of RIO's actuary.
 - b. There were no omissions from the participant data provided to the actuary for the purpose of determining the total pension liability and other actuarially determined amounts in the financial statements.
 - c. There have been no changes in the actuarial methods or assumptions used in calculating the amounts recorded or disclosed in the financial statements. There have been no changes in plan provisions between the actuarial valuation date and the date of this letter.
- 13. We believe the plan and trust established under the plan is qualified under the appropriate section of The North Dakota Century Code, and we intend to continue them as a qualified plan and trust.
- 14. We are not aware of any present legislative intentions to terminate the plan.

Information Provided

- 1. We have provided you with:
 - a. Access to all information, of which we are aware, that is relevant to the preparation and fair presentation of the financial statements such as records, documentation, and other matters.
 - b. Additional information that you have requested from us for the purpose of the audit.
 - c. Unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence.
 - d. Complete minutes of the meetings of the governing board and related committees, or summaries of actions of recent meetings for which minutes have not yet been prepared.
 - e. All actuarial reports prepared for the plan during the year.
- 2. All material transactions have been recorded in the accounting records and are reflected in the financial statements.
- 3. We have disclosed to you the results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.
- 4. We have no knowledge of any fraud or suspected fraud that affects the entity and involves:

- a. Management;
- b. Employees who have significant roles in internal control; or
- c. Others when the fraud could have a material effect on the financial statements.
- 5. We have no knowledge of any allegations of fraud, or suspected fraud, affecting the entity's financial statements communicated by employees, former employees, regulators, or others.
- 6. We have no knowledge of any instances of noncompliance or suspected noncompliance with laws and regulations and provisions of contracts, or abuse whose effects should be considered when preparing financial statements.
- 7. We have disclosed to you all known actual or possible litigation, claims, and assessments whose effects should be considered when preparing the financial statements.
- 8. There are no other material liabilities or gain or loss contingencies that are required to be accrued or disclosed in accordance with U.S. GAAP.
- 9. We have disclosed to you the identity of the entity's related parties and all the related party relationships and transactions of which we are aware.
- 10. We are responsible for compliance with the laws, regulations, and provisions of contracts applicable to RIO, and we have identified and disclosed to you all laws, regulations, and provisions of contracts that we believe have a direct and material effect on the determination of financial statement amounts or other financial data significant to the audit objectives, including legal and contractual provisions for reporting specific activities in separate funds.
- 11. There are no violations or possible violations of budget ordinances, laws and regulations (including those pertaining to adopting, approving, and amending budgets), provisions of contracts, or any debt covenants whose effects should be considered for disclosure in the financial statements, or as a basis for recording a loss contingency, or for reporting on noncompliance.
- 12. The entity has complied with all aspects of contractual agreements that would have a material effect on the financial statements in the event of noncompliance.
- 13. We have followed all applicable laws and regulations in adopting, approving, and amending budgets.
- 14. Investments, derivative instruments, and land and other real estate held by RIO are properly valued.
- 15. Expenses have been appropriately classified the statement of changes in net position, and allocations have been made on a reasonable basis.
- 16. Revenues are appropriately classified in the statement of changes in net position.
- 17. Interfund, internal, and intra-entity activity and balances have been appropriately classified and reported.
- 18. Deposits and investment securities and derivative instruments are properly classified as to risk and are properly valued and disclosed.
- 19. Capital assets, including infrastructure and intangible assets, are properly capitalized, reported, and, if applicable, depreciated.
- 20. We acknowledge our responsibility for the required supplementary information (RSI). The RSI is measured and presented within prescribed guidelines and the methods of measurement and presentation have not changed from

October 30, 2019 CliftonLarsonAllen LLP Page 4

those used in the prior period. We have disclosed to you any significant assumptions and interpretations underlying the measurement and presentation of the RSI.

21. We acknowledge our responsibility for presenting the schedules (the supplementary information) in accordance with U.S. GAAP, and we believe the supplementary information, including its form and content, is fairly presented in accordance with U.S. GAAP. The methods of measurement and presentation of the supplementary information have not changed from those used in the prior period, and we have disclosed to you any significant assumptions or interpretations underlying the measurement and presentation of the supplementary information. If the supplementary information is not presented with the audited financial statements, we will make the audited financial statements readily available to the intended users of the supplementary information no later than the date we issue the supplementary information and the auditors' report thereon.

Signature: Title: Executive Director/CIO Signature: Title: Chief Financial Officer

Internal Audit: TFFR Employer Salary Review Process

North Dakota State Investment Board Audit Committee Education

November 13, 2019

By: Sara Sauter & Dottie Thorsen

Purpose of TFFR Salary Review Process

- Verify accuracy of retirement salaries and contribution reported for members to TFFR
- Verify membership eligibility
- Verify reasonability of service hours

Internal Audit Employer Review Salary Process

- Sampling and Notification
- Verify Membership Eligibility
- Reconcile Salaries
- Review retired members return to employment
- Check Reasonability of Service Hours
- Complete Correction Worksheet (if applicable)
- Issue Report to Retirement Services

Sampling and Notification

- Request Employer Information from IT for the years that will be reviewed
- Audit Staff reviews employer account on FileNet and negotiated agreements
- Selects sample of from the employer summary reports
- The Employer is electronically notified of sample and required documents to provide

Eligibility Requirements

- Must have an active ND teacher license and a written agreement
- Sample that is selected looked up on ESPB website
- Verify a written agreement has been issued and signed
- New Data Analytics will be able to check the whole census data file

Salary Reconcilement

- Reviewing individual written agreements and payroll ledgers for each sample member
 - Employers are required to also provide a salary reconciliation which identifies each type of salary paid
- Comparing payroll records to CPAS records
- Documenting any discrepancies

Retired Teachers - Return to Covered Employment

- Verify the return to teach document has been submitted
- Verify responsibilities
- Verify the waiting period is met
- Verify maximum allowed hours are not exceeded
- Verify all salary is reported

Service Hours

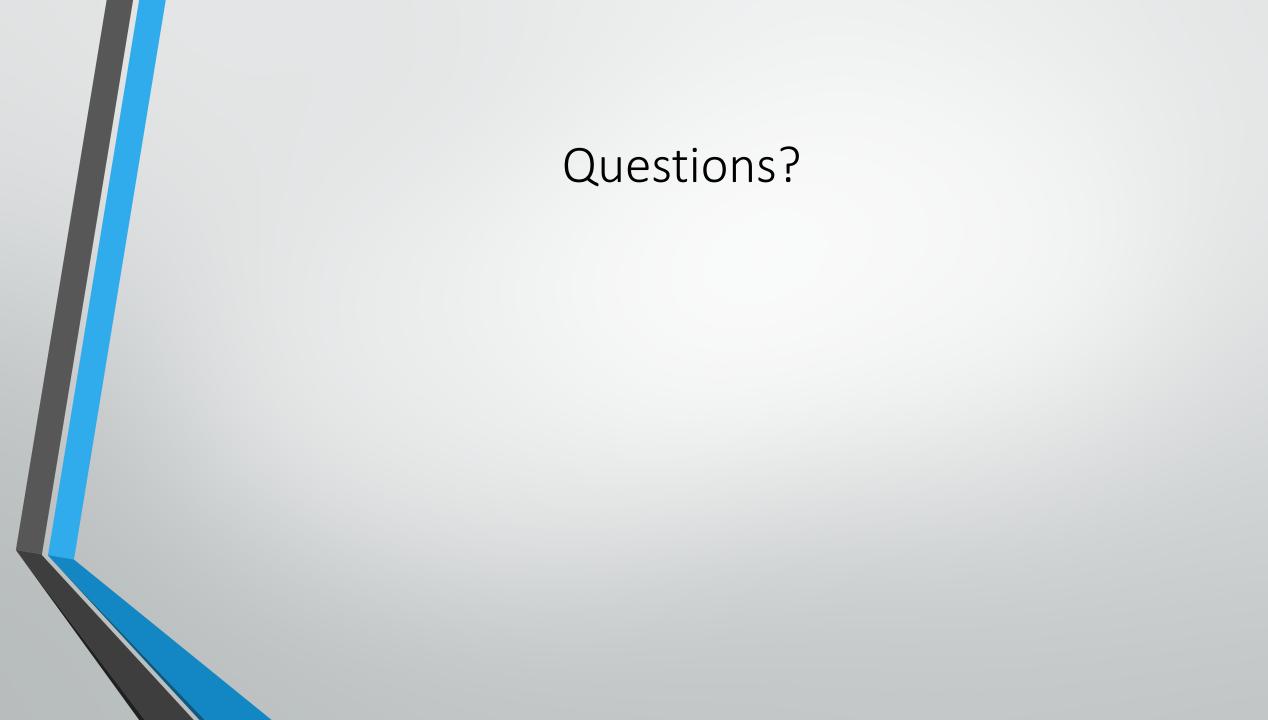
- Reviewing the employer summary report
- Verifying full years were worked
- Verifying part-time employee's hours

Audit Worksheets

- Payroll Reconciliation
- Primary Test
- Salary Correction Summary
 - Billing or overpayments for employer
- Change Salary and Contributions
 - List for Retirement Services and the Employer the salaries that should be changed

Issuing Report

- Issue a draft report to Retirement Services
- Discuss any questions or concerns
- Final Report, copy of audit worksheet, and supporting documents are given to Retirement Services
- Retirement Services provides a response to the final report



PRIMARY TEST

Audit worksheet- figures come from salary reconciliations

			1	2	3	4	5	6	7	8	9	10	11	12
				Member	Employer			(Deductions)		Member	Employer	Member	Employer	Differen
			Salary	Contrib.	Contrib.		Extra-	from	Salary to be	Contrib. to	Contrib. to	Contrib.	Contrib.	in
		SCHOOL	Reported	Reported	Reported	Contract	Curricular	Contract	Reported	be Reported	be Reported	Due	Due	Salary
NAME	ID	YEAR	To TFFR	To TFFR	To TFFR	Salary	Payments	Salary	To TFFR	To TFFR	To TFFR	(refund)	(refund)	
Carl Winslow	555555	15 - 16	\$44,200.00	\$5,193.48	\$5,635,53	\$44,200.00	\$0.00		\$44,200.00	\$5,193.50	\$5,635,50	\$0.02	(\$0.03)	\$0.00
Carlton Banks	555555	15 - 16	\$46,100.00	\$5,416,77	\$5,877.74	\$44,800.00	\$1,300.00		\$46,100.00	\$5,416.75	\$5,877.75	(\$0.02)	\$0.03)	\$0.00
Lorelai Gilmore	555555	15 - 16	\$48,922.75	\$5,748.40	\$6,237.67	\$41,500.00	\$7,422.75		\$48,922.75	\$5,748.42	\$6,237.65	\$0.02	(\$0.02)	\$0.00
Carl Winslow	555555	16 - 17	\$47,685.88	\$5,603,09	\$6.079.95	\$47,150.00	\$901.26		\$48.051.26	\$5,646.02	\$6,126.54	\$42.93		
Carlton Banks	555555	16 - 17	\$49,150.00	\$5,775.15	\$6,266.64	\$47,150.00	\$2,000.00		\$49,150.00	\$5,775.13			\$46.59	\$365.3
Lorelai Gilmore	555555	16 - 17	\$45,645.89	\$5,363.39	\$5,819,88	\$43,850.00	\$2,362.50		\$49,150.00	\$5,429.97	\$6,266.63	(\$0.02)	(\$0.02)	\$0.00
George Jefferson	555555	16 - 17	\$49.075.50	\$5,766.38	\$6,257.15	\$50,150.00	\$2,302.50		\$40,212.50	\$5,429.97 \$5,892.63	\$5,892.09	\$66.58	\$72.21	\$566.6
Joey Tribbiani	555555	16 - 17	\$48,025,43	\$5,643.02	\$6,123.25	\$50,600.00			\$50,150.00	\$5,892.63	\$6,394.13	\$126.25	\$136.98	\$1,074.
Steve Urkel	555555	16 - 17	\$46,225.50	\$5,431.51	\$5,893.75	\$47,300.00			\$50,600.00		\$6,451.50	\$302.48	\$328.25	\$2,574.
Sheldon Cooper	555555	16 - 17	\$47,100.12	\$5,534.24	\$6,005.25	\$49,650.00			\$47,300.00	\$5,557.75 \$5.833.88	\$6,030.75	\$126.24	\$137.00	\$1,074.
Michael Scott	555555	17 - 17	\$44,678,66	\$5,249.75	\$5,696.53	\$44,900.00			\$49,050.00		\$6,330.38	\$299.64	\$325.13	\$2,549.
Fraiser Crane	555555	17 - 17	\$56,575,50	\$6,647.63	\$7,213.40	\$57.650.00			\$57,650.00	\$5,275.75 \$6,773.88	\$5,724.75	\$26.00	\$28.22	\$221.3
Sam Malone	555555	17 - 17	\$50,145.50	\$5,892.08	\$6,393.56	\$51,220.00			\$57,650.00	\$6,018,35	\$7,350.38	\$126.25	\$136.98	\$1,074.
Cameron Tucker	555555	17 - 17	\$60,079.40	\$7.059.32	\$7,660.14	\$61,366.00			\$51,220.00		\$6,530.55	\$126.27	\$136.99	\$1,074.
Rachel Green	555555	16 - 17	\$42,373,19	\$4,978.85	\$5,402.56	\$48,450.00			\$48,450.00	\$7,210.51 \$5,692.88	\$7,824.17	\$151.18	\$164.03	\$1,286.
Ted Mosbey	555555	16 - 17	\$52,365.50	\$6,152.93	\$6,676.61	\$52,250.00	\$2,000.00		\$54,250.00	\$6,374.38	\$6,177.38 \$6,916.88	\$714.03 \$221.45	\$774.82 \$240.27	\$6,076. \$1,884.
Cameron Tucker	555555	17 - 18	\$50.338.64	\$5,914.80	\$6,418.17	\$52,400.00								
Rachel Green	555555	17 - 18	\$49,334.68	\$5,914.80	\$6,290,19				\$52,400.00	\$6,157.00	\$6,681.00	\$242.20	\$262.83	\$2,061.
Ted Mosbey	555555	17 - 18	\$49,334.00	\$5,026.15	\$5,453,96	\$49,664.50			\$49,664.50	\$5,835.58	\$6,332.22	\$38.76	\$42.03	\$329.8
George Jefferson	555555	17 - 18	\$42,775.00	\$5,026.15		\$44,150.00			\$44,150.00	\$5,187.63	\$5,629.13	\$161.48	\$175.17	\$1,374.
Joey Tribbiani	555555	17 - 18	\$50,155,71	\$5,200.04	\$5,642.58	\$48,700.00			\$48,700.00	\$5,722.25	\$6,209.25	\$522.21	\$566.67	\$4,444
Steve Urkel	555555	17 - 18	\$47,595.88	\$5,593.20	\$6,394.88 \$6,068.51	\$52,250.00 \$48,950.00			\$52,250.00	\$6,139.38	\$6,661.88	\$246.10	\$267.00	\$2,094.
Sheldon Cooper	555555	17 - 18	\$53,803.59	\$6,321.96					\$48,950.00	\$5,751.63	\$6,241.13	\$159.13	\$172.62	\$1,354.
Michael Scott	5555555	17 - 18	\$53,803.59	\$6,239.26	\$6,859.92	\$56,050.00			\$56,050.00	\$6,585.88	\$7,146.38	\$263.92	\$286.46	\$2,246.
Fraiser Crane	555555	17 - 18	\$46,280,10	\$5,437.94	\$6,670.24 \$5,900.73	\$54,300.00			\$54,300.00	\$6,380.25	\$6,923.25	\$140.99	\$253.01	\$1,199
Sam Malone	555555	17 - 18	\$75,042.00	\$5,437.94	\$9,567.86	\$48,150.00			\$48,150.00	\$5,657.63	\$6,139.13	\$219.69	\$238.40	\$1,869.
Cameron Tucker	555555	17 - 18	\$59,757.33	\$7,021.47		\$76,050.00			\$76,050.00	\$8,935.88	\$9,696.38	\$118.43	\$128.51	\$1,008.
Rachel Green	555555	17 - 18			\$7,619.04	\$61,193.75			\$61,193.75	\$7,190.27	\$7,802.20	\$168.80	\$183.16	\$1,436.
Ted Mosbey	555555	17 - 18	\$51,333.59 \$52,326.33	\$6,031.74 \$6,148.34	\$6,544.99	\$52,770.00			\$52,770.00	\$6,200.48	\$6,728.18	\$168.74	\$183.19	\$1,436.
Leslie Knope	555555	17 - 18	\$52,320.33		\$6,671.63	\$56,750.00			\$56,750.00	\$6,668.13	\$7,235.63	\$519.79	\$564.00	\$4,423
Lorelai Gilmore	555555	17 - 18	\$45,332.33 \$46,810.00	\$5,326.57 \$5,500.17	\$5,779.87	\$51,250.00			\$51,250.00	\$6,021.88	\$6,534.38	\$695.31	\$754.51	\$5,917.
Dwight Schrute	5555555	17 - 18	\$111,614.00	\$13,114.64	\$5,968.30 \$14,230.78	\$47,260.00			\$47,260.00	\$5,553.05	\$6,025.65	\$52.88	\$57.35	\$450.0
orngin oonnute	555555	17-10	0111,014.00	010,114.04	\$14,230.78	\$112,864.00			\$112,864.00	\$13,261.52	\$14,390.16	\$146.88	\$159.38	\$1,250.

Total Member and Employer Contributions Due/(Refunded) \$6,194.55 \$6,821.70 \$52,720.20

EXPLANATION OF TIC MARKS	
a Programming error caused salaries to be reported incorrectly due to deductions being taken out	
b Coaching was not reported	
c Substitute Teaching not reported	

NOTE: Total member and employer contributions and interest due is calculated on the Salary Correction Summary worksheet.

NOTE: Total member and employer contributions due will be zero when the individual account salary shortage or overpayment is immaterial.

	EXPLANATION OF COLUMN HEADINGS	
COLUMN 1	As reported to TFFR	
COLUMN 2	As reported to TFFR	
COLUMN 3	As reported to TFFR	
COLUMN 4	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer	
COLUMN 5	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer	
COLUMN 6	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer	
COLUMN 7	COLUMN 4 plus COLUMN 5 plus COLUMN 6	
COLUMN 8	COLUMN 7 multiplied by .1175 (Member Contribution Rate 11.75%)	
COLUMN 9	COLUMN 7 multiplied by 1275 (Employer Contribution Rate 12.75%)	
COLUMN 10	COLUMN 8 minus COLUMN 2	
COLUMN 11	COLUMN 9 minus COLUMN 3	
COLUMN 12	COLUMN 7 minus COLUMN 1	

PAYROLL RECONCILIATION

COLUMN 1	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer
COLUMN 2	As reported to TFFR
COLUMN 3	COLUMN 1 multiplied by .1175 (Member Contribution Rate 11.75%)
COLUMN 4	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer
COLUMN 5	As reported to TFFR
DIFFERENCES	COLUMN 1 minus COLUMN 2
	COLUMN 3 minus COLUMN 5

			(1)	(2)	(3) Employee	(4)	(5) Employee
			Payroll	Salary	Contributions	TFFR	Contributions
		PAY	Salary	Reported	To Be Deducted	Per	Remitted
NAME	 ID	PERIOD	Amount	To TFFR	For TFFR	Payroll	To TFFR
Carl Winslow	555555	14 - 15					
		Jul-14			0.00		
		Aug-14			0.00		
		Sep-14	3,683.34		432.79		
		Oct-14	3,703.34		435.14		
		Nov-14	3,683.34		432.79		
		Dec-14	3,683.34		432.79		
		Jan-15	3,683.34		432.79		
		Feb-15	3,683.34		432.79		
		Mar-15	3,683.34		432.79		
		Apr-15	3,683.34		432.79		
		May-15	14,733.25		1,731.16		
		Jun-15	25.00		2.94		
		Totals	44,245.00	44,200.00	5,198.78	5,193.40	5,193.48
		Tickets	(20.00)		(2.35)		_
		Personal	(25.00)		(2.94)		
			44,200.00		5,193.50		
			Difference	0.00			(0.00)
			-	1			
Notes: Salary OK							
Contract	\$ 44,200.00						
Tickets	\$ 20.00						
Personal	\$ 25.00						
Payroll Total	44,245.00						
Tickets	\$ 	ineligible					
Personal	\$	ineligible					
TFFR	\$ 44,200.00						

PAYROLL RECONCILIATION

COLUMN 1Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employerCOLUMN 2As reported to TFFRCOLUMN 3COLUMN 1 multiplied by .1175 (Member Contribution Rate 11.75%)COLUMN 4Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer

COLUMN 5 As reported to TFFR DIFFERENCES COLUMN 1 minus COLUMN 2

COLUMN 3 minus COLUMN 5

				(1)	(2)	(3)	(4)	(5)
				Payroll	Salary	Employee Contributions	TFFR	Employee Contributions
			PAY	Salary	Reported	To Be Deducted	Per	Remitted
NAME		ID	PERIOD	Amount	To TFFR	For TFFR	Payroll	To TFFR
Carl Winslow		555555	15 - 16					
			Jul-15			0.00		
			Aug-15			0.00		
			Sep-15	3,929.16		461.68		
			Oct-15	4,103.24		482.13		
			Nov-15	4,022.22		472.61		
			Dec-15	4,034.46		474.05		
			Jan-16	4,058.94		476.93		
			Feb-16	4,106.10		482.47		
			Mar-16	3,974.16		466.96		
			Apr-16	4,095.12		481.18		
			May-16	15,747.86		1,850.37		
			Jun-16	125.00		14.69		
			Totals		47,685.88	5,663.06	5,603.00	5,603.09
			Tickets	((2.35)		
		P	ersonal Days		• /	(14.69)		
				48,051.26		5,646.02		
				Differences	365.38	Shortage		42.93
Notes: Salary error								
Contract		\$ 47,150.00						
Tickets		\$ 20.00						
Afterschool		\$ 901.26			Included Dent	tal & Vision \$365.38	with reportal	ble salary.
Personal Days		\$ 125.00			Shortage \$42	.93		
Payrol	I Total	\$ 48,196.26						
Tickets		\$ (20.00)) Ineligible					
Afterschool		\$ 	Ineligible					
	TFFR	\$ 48,051.26						

PAYROLL RECONCILIATION

COLUMN 1 COLUMN 2	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer As reported to TFFR
COLUMN 3	COLUMN 1 multiplied by .1175 (Member Contribution Rate 11.75%)
COLUMN 4	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer
COLUMN 5	As reported to TFFR
DIFFERENCES	COLUMN 1 minus COLUMN 2
	COLUMN 3 minus COLUMN 5

		(1)	(2)	(3)	(4)	(5)
				Employee		Employee
		Payroll	Salary	Contributions	TFFR	Contributions
	PAY	Salary	Reported	To Be Deducted	Per	Remitted
NAME	ID PERIOD	Amount	To TFFR	For TFFR	Payroll	To TFFR
Carlton Banks	555555 14 - 15					
	Jul-14			0.00		
	Aug-14			0.00		
	Sep-14	4,300.24		505.28		
	Oct-14	4,300.24		505.28		
	Nov-14	4,300.24		505.28		
	Dec-14	4,320.24		507.63		
	Jan-15	4,300.24		505.28		
	Feb-15	4,300.24		505.28		
	Mar-15	4,300.24		505.28		
	Apr-15	4,300.24		505.28		
	May-15	16,800.18		1,974.02		
	Jun-15			0.00		
	Totals	51,222.10	46,100.00	6,018.60	0.00	5,416.75
	Tickets	(20.00)		(2.35)		-
	Cash in lieu of insurance	(5,102.10)		(599.50)		
		46,100.00		5,416.75		
		Differences	0.00	-		0.00
		=		-		
Notes: Salary OK						

Notes: Salary OK			
Contract		\$ 44,800.00	
Tickets		\$ 20.00	
Cash in lieu of insurance		\$ 5,102.10	
Advisor		\$ 1,300.00	
Payro	oll Total	\$ 51,222.10	
Cash in lieu of insurance		(5,102.10)	
Tickets		(20.00)	
	TFFR	\$ 46,100.00	

PAYROLL RECONCILIATION

COLUMN 1	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer
COLUMN 2	As reported to TFFR
COLUMN 3	COLUMN 1 multiplied by .1175 (Member Contribution Rate 11.75%)
COLUMN 4	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer
COLUMN 5	As reported to TFFR
DIFFERENCES	COLUMN 1 minus COLUMN 2

COLUMN 1 minus COLUMN 2

COLUMN 3 minus COLUMN 5

		(1)	(2)	(3) Employee	(4)	(5) Employee
		Payroll	Salary	Contributions	TFFR	Contributions
	PAY	Salary	Reported	To Be Deducted	Per	Remitted
NAME	ID PERIOD	Amount	To TFFR	For TFFR	Payroll	To TFFR
					,	
Carlton Banks	555555 15 - 16					
	Jul-15			0.00		
	Aug-15			0.00		
	Sep-15	4,551.86		534.84		
	Oct-15	4,551.86		534.84		
	Nov-15	4,551.86		534.84		
	Dec-15	4,551.86		534.84		
	Jan-16	4,551.86		534.84		
	Feb-16	4,551.86		534.84		
	Mar-16	4,622.86		543.19		
	Apr-16	4,551.86		534.84		
	May-16	18,339.42		2,154.88		
	Jun-16			0.00		
	Totals	54,825.30	49,150.00	6,441.97	5,775.10	5,775.13
	Tickets	(20.00)		(2.35)		
	Cash In Lieu of Insurance	(5,604.30)		(658.51)		
	Bus Driving	(51.00)		(5.99)		
		49,150.00		5,775.13		
		Differences	0.00			(0.01)
				=		
Notes: Salary OK						

Notes. Salary OK			
Contract		\$ 47,150.00	
Tickets		\$ 20.00	
Advisor		\$ 2,000.00	
Bus Driving		\$ 51.00	
Cash in lieu of insurance		\$ 5,604.30	
Total P	ayroll	\$ 54,825.30	
Cash in lieu of insurance		\$ (5,604.30)	ineligible
Tickets		\$ (20.00)	ineligible
Bus Driving		\$ (51.00)	ineligible
	TFFR	\$ 49,150.00	

PAYROLL RECONCILIATION

COLUMN 1	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer
COLUMN 2	As reported to TFFR
COLUMN 3	COLUMN 1 multiplied by .1175 (Member Contribution Rate 11.75%)
COLUMN 4	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer
COLUMN 5	As reported to TFFR
DIFFERENCES	COLUMN 1 minus COLUMN 2
	COLUMN 3 minus COLUMN 5

			(1)	(2)	(3)	(4)	(5)
			Dever	O -last	Employee	TEED	Employee
		DAX	Payroll	Salary	Contributions	TFFR	Contributions
	ID	PAY	Salary	Reported	To Be Deducted	Per	Remitted
NAME	ID	PERIOD	Amount	To TFFR	For TFFR	Payroll	To TFFR
Lorelai Gilmore	555555	14 - 15					
		Jul-14	1,469.00		172.61		
		Aug-14			0.00		
		Sep-14	3,458.34		406.35		
		Oct-14	3,458.34		406.35		
		Nov-14	5,267.09		618.88		
		Dec-14	3,458.34		406.35		
		Jan-15	3,458.34		406.35		
		Feb-15	4,764.59		559.84		
		Mar-15	3,458.34		406.35		
		Apr-15	5,362.09		630.05		
		May-15	16,986.28		1,995.89		
		Jun-15	100.00		11.75		
		Totals	51,240.75	48,922.75	6,020.79	5,748.38	5,748.40
	Tic	ket Taking	(40.00)		(4.70)		
	В	us Driving	(2,178.00)		(255.92)		
	Per	sonal Day	(100.00)		(11.75)		
			48,922.75		5,748.42		
			Differences	0.00			0.02
					:		
Notes: Salary OK							
Contract	\$ 41,500,00						

Notes: Salary Ol	К		
Contract		\$ 41,500.00	
Summer School		\$ 1,469.00	
After School		\$ 4,978.75	
Ticket Taking		\$ 40.00	
Track		\$ 975.00	
Bus Driving		\$ 2,178.00	
Personal Day		\$ 100.00	
	Total Payroll	\$ 51,240.75	
Less:			
Ticket Taking		\$ (40.00)	ineligible
Bus Driving		\$ (2,178.00)	ineligible
Personal Day		\$ (100.00)	ineligible
	TFFR	\$ 48,922.75	

PAYROLL RECONCILIATION

COLUMN 1	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer
COLUMN 2	As reported to TFFR
COLUMN 3	COLUMN 1 multiplied by .1175 (Member Contribution Rate 11.75%)
COLUMN 4	Values per teaching contracts, itemized payroll, and/or reconciliation worksheet as completed by employer
COLUMN 5	As reported to TFFR
DIFFERENCES	COLUMN 1 minus COLUMN 2
	COLUMN 3 minus COLUMN 5

			(1)	(2)	(3) Employee	(4)	(5) Employee
			Payroll	Salary	Contributions	TFFR	Contributions
		PAY	Salary	Reported	To Be Deducted	Per	Remitted
NAME	ID	PERIOD	Amount	To TFFR	For TFFR	Payroll	To TFFR
Lorelai Gilmore	555555	15 - 16					
		Jul-15			0.00		
		Aug-15			0.00		
		Sep-15	4,276.86		502.53		
		Oct-15	4,276.86		502.53		
		Nov-15	4,276.86		502.53		
		Dec-15	4,276.86		502.53		
		Jan-16	4,276.86		502.53		
		Feb-16	4,276.86		502.53		
		Mar-16	4,426.86		520.16		
		Apr-16	4,276.86		502.53		
		May-16	19,845.92		2,331.90		
		Jun-16			0.00		
		Totals	54,210.80	45,645.89	6,369.77	5,363.48	5,363.39
		Insurance	(5,604.30)		(658.51)		_
		Bus Driving	(2,394.00)		(281.30)		
			46,212.50		5,429.97		
			Differences	566.61	Shortage		66.58
Notes Only							
Notes: Salary error Contract	\$ 43,850.0						
Insurance	\$ 43,850.0 \$ 5,604.3						
				Included Flox	SEEG 61 with ropor		
After School Track	\$ 812.5 \$ 1,550.0			Shortage \$66.	\$566.61 with repor	lable salary.	
	\$ 2,394.0			Shortage add.	50.		
Bus Driving Total Payroll							
	φ 04,210.0						
Less:	\$ (5,604.3	0)					
Less Insurance							
Bus Driving TFFR	\$ (2,394.0 \$ 46,212.5						
IFFR	φ 40,212.0						

SALARY CORRECTION SUMMARY

			15-16			16-17			Total	
		1	2	3	1	2	3	1	2	3
				Member &			Member &			Member &
		Member &		Employer	Member &		Employer	Member &		Employer
		Employer		Contrib. &	Employer		Contrib. &	Employer		Contrib. &
		Contrib.	Interest	Interest	Contrib.	Interest	Interest	Contrib.	Interest	Interest
		Due	Due	Due	Due	Due	Due	Due	Due	Due
NAME	ID	DR(CR)	DR(CR)	DR(CR)	DR(CR)	DR(CR)	DR(CR)	DR(CR)	DR(CR)	DR(CR)
Employer Contributions	55-555	\$2,527.40	\$212.80	\$2,740.20	\$4,294.26	\$26.69	\$4,320.95	\$6,821.66	\$239.49	\$7,061.15
Member Contributions				2	с. С					
Carl Winslow	555555	\$42.93	\$3.62	\$46.55	\$38.76	\$0.24	\$39.00	\$81.69	\$3.86	\$85.55
Lorelai Gilmore	555555	\$66.58	\$5.60	\$72.18	\$52.88	\$0.33	\$53.21	\$119.46	\$5.93	\$05.55 \$125.39
George Jefferson	555555	\$126.25	\$10.63	\$136.87	\$242.20	\$1.51	\$243.71	\$368.45	\$3.93 \$12.14	\$380.58
Joey Tribbiani	555555	\$302.48	\$25.47	\$327.95	\$246.10	\$1.53	\$247.63	\$548.58	\$27.00	\$575.58
Steve Urkel	555555	\$126.24	\$10.63	\$136.87	\$159.13	\$0.99	\$160.12	\$285.37	\$11.62	\$296.99
Sheldon Cooper	555555	\$299.64	\$25.22	\$324.86	\$140.99	\$0.88	\$141.87	\$440.63	\$26.10	\$466.73
Michael Scott	555555	\$26.00	\$2.19	\$28.19	\$0.00	\$0.00	\$0.00	\$26.00	\$2.19	\$28.19
Fraiser Crane	555555	\$126.25	\$10.63	\$136.87	\$168.80	\$1.05	\$169.85	\$295.05	\$11.68	\$306.72
Sam Malone	555555	\$126.27	\$10.63	\$136.90	\$168.74	\$1.05	\$169.79	\$295.01	\$11.68	\$306.69
Cameron Tucker	555555	\$151.18	\$12.73	\$163.91	\$519.79	\$3.23	\$523.02	\$670.97	\$15.96	\$686.93
Rachel Green	555555	\$714.03	\$60.12	\$774.14	\$695.31	\$4.32	\$699.63	\$1,409.34	\$64.44	\$1,473.77
Ted Mosbey	555555				\$161.48	\$1.00	\$162.48	\$161.48	\$1.00	\$162.48
Leslie Knope	555555				\$522.21	\$3.25	\$525.46	\$522.21	\$3.25	\$525.46
Lorelai Gilmore	555555	\$221.45	\$18.65	\$240.09	\$263.92	\$1.64	\$265.56	\$485.37	\$20.29	\$505.65
Dwight Schrute	555555				\$219.69	\$1.37	\$221.06	\$219.69	\$1.37	\$221.06
	er & Employer									
Contributions, and intere	est due	\$4,856.68	\$408.90	\$5,265.58	\$7,894.26	\$49.08	\$7,943.34	\$12,750.94	\$457.98	\$13,208.92

COLUMN1

COLUMN 2

Member/Employer Contributions (Primary Test- Columns 10 and 11)

Interest on shortages is calculated at 7.75% annually (compound interest) from the due date through the date the employer was notified in writing that retirement salaries were under review. Interest for the 2015-2016 school year is calculated from July 1, 2015 through July 31, 2018 Interest for the 2016-2017 school year is calculated from July 1, 2016 through July 31, 2018 COLUMN 1 plus COLUMN 2

COLUMN 3

C:\Users\bheit\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\AD597CC2\Example of Model 1.xlsm\Salary Correction Summary

Audit	(Audit date	Audit date is the date the District was notified, in writing, of the audit.)							
	Support and the second se	7.75% is the current actuarial valuation)							
07/31/17									
	Interest	at 7.75% Co	mpounded	Annually					
	5.083	4.083	3.083	2.083	1.083	0.083			
	07/01/12	07/01/13	7/1/2014	7/1/2015	7/1/2016	7/1/2017			

C:\Users\bheit\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\4D597CC2\Example of Model 1.xlsm\Salary Correction Summary

CHANGE IN SALARIES AND CONTRIBUTIONS

				REP	ORTED TO T	FFR	TO BE	REPORTED T	O TFFR		IDUAL MEN	
				Salary	Member Contrib.	Employer Contrib.	Salary to be	Member Contrib. to	Employer Contrib. to	Change in Tax Deferred	Change in Employer	Change in Contract/ Retirement
NAME	ID	MEMBER STATUS	YEAR	Reported To TFFR	Reported To TFFR	Reported To TFFR	Reported To TFFR	be Reported To TFFR	be Reported To TFFR	Contrib. DR (CR)	Contrib. DR (CR)	Salary DR (CR)
			12,010	10 1111	10 11 11			TOTITI	TOTTIC	Dix (Cix)	DR (CR)	DR (CR)
Carl Winslow	555555	ACTIVE	16 - 17	\$47,685.88	\$5,603.09	\$6,079.95	\$48,051.26	\$5,646.02	\$6,126.54	\$42.93	\$46.59	\$365.38
Lorelai Gilmore	555555	ACTIVE	16 - 17	\$45,645.89	\$5,363.39	\$5,819.88	\$46,212.50	\$5,429.97	\$5,892.09	\$66.58	\$72.21	\$566.61
George Jefferson	555555	ACTIVE	16 - 17	\$49,075.50	\$5,766.38	\$6,257.15	\$50,150.00	\$5,892.63	\$6,394.13	\$126.25	\$136.98	\$1,074.50
Joey Tribbiani	555555	ACTIVE	16 - 17	\$48,025.43	\$5,643.02	\$6,123.25	\$50,600.00	\$5,945.50	\$6,451.50	\$302.48	\$328.25	\$2,574.57
Steve Urkel	555555	ACTIVE	16 - 17	\$46,225.50	\$5,431.51	\$5,893.75	\$47,300.00	\$5,557.75	\$6,030.75	\$126.24	\$137.00	\$1,074.50
Sheldon Cooper	555555	ACTIVE	16 - 17	\$47,100.12	\$5,534.24	\$6,005.25	\$49,650.00	\$5,833.88	\$6,330.38	\$299.64	\$325.13	\$2,549.88
Michael Scott	555555	ACTIVE	17 - 17	\$44,678.66	\$5,249.75	\$5,696.53	\$44,900.00	\$5,275.75	\$5,724.75	\$26.00	\$28.22	\$221.34
Fraiser Crane	555555	ACTIVE	17 - 17	\$56,575.50	\$6,647.63	\$7,213.40	\$57,650.00	\$6,773.88	\$7,350.38	\$126.25	\$136.98	\$1,074.50
Sam Malone	555555	ACTIVE	17 - 17	\$50,145.50	\$5,892.08	\$6,393.56	\$51,220.00	\$6,018.35	\$6,530.55	\$126.27	\$136.99	\$1,074.50
Cameron Tucker	555555	ACTIVE	17 - 17	\$60,079.40	\$7,059.32	\$7,660.14	\$61,366.00	\$7,210.51	\$7,824.17	\$151.18	\$164.03	\$1,286.60
Rachel Green	555555	ACTIVE	16 - 17	\$42,373.19	\$4,978.85	\$5,402.56	\$48,450.00	\$5,692.88	\$6,177.38	\$714.03	\$774.82	\$6,076.81
Ted Mosbey	555555	ACTIVE	15 - 16	\$52,365.50	\$6,152.93	\$6,676.61	\$54,250.00	\$6,374.38	\$6,916.88	\$221.45	\$240.27	\$1,884.50
Carl Winslow	555555	ACTIVE	17 - 18	\$49,334.68	\$5,796.82	\$6,290.19	\$49,664.50	\$5,835.58	\$6,332.22	\$38.76	\$42.03	\$329.82
Lorelai Gilmore	555555	ACTIVE	17 - 18	\$46,810.00	\$5,500.17	\$5,968.30	\$47,260.00	\$5,553.05	\$6,025.65	\$52.88	\$57.35	\$450.00
George Jefferson	555555	ACTIVE	17 - 18	\$50,338.64	\$5,914.80	\$6,418.17	\$52,400.00	\$6,157.00	\$6,681.00	\$242.20	\$262.83	\$2,061.36
Joey Tribbiani	555555	ACTIVE	17 - 18	\$50,155.71	\$5,893.28	\$6,394.88	\$52,250.00	\$6,139.38	\$6,661.88	\$246.10	\$267.00	\$2,094.29
Steve Urkel	555555	ACTIVE	17 - 18	\$47,595.88	\$5,592.50	\$6,068.51	\$48,950.00	\$5,751.63	\$6,241.13	\$159.13	\$172.62	\$1,354.12
Sheldon Cooper	555555	ACTIVE	17 - 18	\$53,100.12	\$6,239.26	\$6,670.24	\$54,300.00	\$6,380.25	\$6,923.25	\$140.99	\$253.01	\$1,199.88
Fraiser Crane	555555	ACTIVE	17 - 18	\$59,757.33	\$7,021.47	\$7,619.04	\$61,193.75	\$7,190.27	\$7,802.20	\$168.80	\$183.16	\$1,436.42
Sam Malone	555555	ACTIVE	17 - 18	\$51,333.59	\$6,031.74	\$6,544.99	\$52,770.00	\$6,200.48	\$6,728.18	\$168.74	\$183.19	\$1,436.41
Cameron Tucker	555555	ACTIVE	17 - 18	\$52,326.33	\$6,148.34	\$6,671.63	\$56,750.00	\$6,668.13	\$7,235.63	\$519.79	\$564.00	\$4,423.67
Rachel Green	555555	ACTIVE	17 - 18	\$45,332.33	\$5,326.57	\$5,779.87	\$51,250.00	\$6,021.88	\$6,534.38	\$695.31	\$754.51	\$5,917.67
Ted Mosbey	555555	ACTIVE	17 - 18	\$42,775.88	\$5,026.15	\$5,453.96	\$44,150.00	\$5,187.63	\$5,629.13	\$161.48	\$175.17	\$1,374.12
Leslie Knope	555555	ACTIVE	17 - 18	\$44,255.56	\$5,200.04	\$5,642.58	\$48,700.00	\$5,722.25	\$6,209.25	\$522.21	\$566.67	\$4,444.44
Lorelai Gilmore	555555	ACTIVE	17 - 18	\$53,803.59	\$6,321.96	\$6,859.92	\$56,050.00	\$6,585.88	\$7,146.38	\$263.92	\$286.46	\$2,246.41
Dwight Schrute	555555	ACTIVE	17 - 18	\$46,280.10	\$5,437.94	\$5,900.73	\$48,150.00	\$5,657.63	\$6,139.13	\$219.69	\$238.40	\$1,869.90
									TOTALS:	\$5,929.24	\$6,533.81	\$50,462.20

CHANGE IN SALARIES AND CONTRIBUTIONS

				REPO	ORTED TO T	(FFR		TO BE R	EPORTED 1	TO TFFR		IDUAL ME	
NAME	ID	MEMBER STATUS	YEAR	Salary Reported To TFFR	Member Contrib. Reported To TFFR	Employer Contrib. Reported To TFFR	R			Employer Contrib. to Ibe Reported To TFFR	Change in Tax Deferred Contrib. DR (CR)	Change in Employer Contrib. DR (CR)	Change in Contract/ Retirement Salary DR (CR)
Carl Winslow	555555	Active	15 -16 16 -17	\$44,230.00 \$43,620.00	\$5,197.02 \$5,125.34		100	2,430.00 5,420.00	\$4,985.52 \$5,336.84	\$5,409.82 \$5,791.08	(\$211.50) \$211.50 \$0.00	(\$229.52) \$229.52 (\$0.00)	(\$1,800.00) \$1,800.00 \$0.00
Summer salary report	ed in the wror	ng fiscal year	r.								\$0.00	(30.00)	\$0.00
Sam Malone	555555	Active	16 -17 17 -18	\$42,540.00 \$42,427.50		\$5,423.85 \$5,409.51	- C	0,740.00 4,227.50	\$4,786.97 \$5,196.72		(\$211.50) \$211.50 \$0.00	(\$229.52) \$229.52 (\$0.00)	(\$1,800.00) \$1,800.00 \$0.00
Summer salary report	ed in the wror	ng fiscal year	r.						i.				
George Jefferson Summer salary report	555555 ted in the wror	Active	15 - 16 16 - 17	\$39,900.00 \$39,672.38	\$4,688.28 \$4,661.51			3,100.00 1,472.38	\$4,476.78 \$4,873.01	\$4,857.69 \$5,287.72	(\$211.50) \$211.50 \$0.00	(\$229.52) \$229.52 \$0.00	. (\$1,800.00) \$1,800.00 \$0.00
Steve Urkel	555555	Active	16 - 17 17 - 18	\$41,125.00 \$40,935.00		\$5,243.45 \$5,219.20		9,325.00 2,735.00	\$4,620.72 \$5,021.34	\$5,013.93 \$5,448.72	(\$211.50) \$211.50	(\$229.52) \$229.52	(\$1,800.00) \$1,800.00
Summer salary report	ted in the wror	ng fiscal year	r.								\$0.00	\$0.00	\$0.00
Rachel Green Summer salary report	555555	Active	15 - 16 16 - 17 17 - 18 18 - 19 r.	\$39,400.00 \$40,255.50 \$47,367.16 \$49,615.00	+ - +	\$5,132.57	\$42 \$45	7,600.00 2,055.50 5,985.00 0,997.16	\$4,418.01 \$4,941.49 \$5,403.25 \$5,992.16	\$4,793.98 \$5,362.09 \$5,863.08 \$6,502.16	(\$211.50) \$211.50 (\$162.40) \$162.40 \$0.00	(\$229.52) \$229.52 (\$176.24) \$176.24 \$0.00	(\$1,800.00) \$1,800.00 (\$1,382.16) \$1,382.16 \$0.00
х.							+			TOTALS:	\$0.00	(\$0.00)	\$0.00

Reference the Primary Test

ELIGIBILITY

Conclusion: All member were licensed and had a written agreement

		SCHOOL			
NAME	ID	YEAR	Term	Expiration	Explanation
			- ,		
			License Number		
Carl Winslow	555555	14 - 16	ABC123	10/21/2022	ND - Ok
			License Number		
Carlton Banks	555555	14 - 16	ABC123	2/23/2022	ND - Ok
			License Number		
Lorelai Gilmore	555555	14 - 16	ABC123	7/25/2020	ND - Ok
			License Number		
George Jefferson	555555	15-16	ABC123	2/23/2021	ND - Ok
			License Number		
Joey Tribbiani	555555	15-16	ABC123	6/5/2020	ND - Ok
			License Number		
Steve Urkel	555555	15-16	ABC123	7/7/2020	ND - Ok
Ob a labora O a susse		45.40	License Number	0/10/0001	
Sheldon Cooper	555555	15-16	ABC123	3/16/2021	ND - Ok
Michael Scott	555555	15-16	License Number ABC123	2/13/2019	ND - Ok
Michael Scott	555555	15-16	License Number	2/13/2019	ND - OK
Fraiser Crane	555555	15-16	ABC123	1/29/2021	ND - Ok
	000000	10 10	License Number	1/20/2021	
Sam Malone	555555	15-16	ABC123	11/25/2022	ND - Ok
			License Number		
Cameron Tucker	555555	15-16	ABC123	8/17/2018	ND - Ok
			License Number		
Rachel Green	555555	15-16	ABC123	2/4/2022	ND - Ok
			∠ Year -Initiai		
Tod Moshov	555555	16-17	License Number ABC123	2/10/2010	
Ted Mosbey	000000	10-17		2/10/2019	ND - Ok

ID

RETIRED TEACHERS

How are retirees who have returned to covered TFFR employment monitored to ensure they do not exceed the maximum allowable hours?

Typical employer responses: honor system or timecards or calendars or payroll records

RETIRED TEACHE

1

Zach Morris 555555

Audit Year	2016-2017
Retirement Date	7/1/2014
Return to Work Date	7/1/2017
Responsibilities	Coach
Listed on Employer Summary Rep	Yes
Enrollment Form - FileNet	Yes
Waiting Period Met	Yes

Audit Year	2017-2018
Retirement Date	7/1/14
Return to Work Date	7/1/2017
Responsibilities	Coach
Listed on Employer Summary Rep	Yes
Enrollment Form - FileNet	Yes
Waiting Period Met	Yes

Notes & Questions:

Salary Ok - See Payroll Reconciliation

2 Kelly Kapowski 555555

Audit Year	2017-18
Retirement Date	7/1/07
Return to Work Date	9/4/18
Responsibilities	Teaching
Listed on Employer Summary Rep	Yes
Enrollment Form - FileNet	Yes
Waiting Period Met	Yes

Audit Year	
Retirement Date	
Return to Work Date	
Responsibilities	
Listed on Employer Summary Report	
Enrollment Form - FileNet	
Waiting Period Met	

Notes: Service Hours 72

Service Hours appear reasonable for summer school - will ask the dates of summer school and how many hours a day Reviewed return to teach spreadsheet on J: Drive

3 Jessie Spano 555555

2016-17
6/1/09
11/01/16
Summer School
o Yes
Yes
Yes

ş

Audit Year	2017-18
Retirement Date	6/1/09
Return to Work Date	11/01/16
Responsibilities	Summer Schoo
Listed on Employer Summary Rep	Yes
Enrollment Form - FileNet	Yes
Waiting Period Met	Yes

Notes:

Service Hours: 160

Service Hour appear reasonable for coaching. Reviewed return to teach spreadsheet on J: Drive

SERVICE CREDIT

School day is from 8:10 am to 3:50 p.m.

Conclusion: Service hours were reported correctly

Part-time teacher: Active hours Retired teachers: Active hours

Full time teacher: Report 700 Full year

NAME	ID	SCHOOL YEAR	Term	Reported Hours	Actual Hours	Percent of Contract Worked
Carl Winslow	555555	16 - 17	9 mo	700	700	100%
Carlton Banks	555555	16 - 17	9 mo	700	700	100%
Lorelai Gilmore	555555	16 - 17	9 mo	700	700	100%
Carl Winslow	555555	17 - 18	9 mo	700	700	100%
Carlton Banks	555555	17 - 18	9 mo	700	700	100%
Lorelai Gilmore	555555	17 - 18	9 mo	700	700	100%

Carl Winslow 2016/17	ОК	555555		
1,613.40	Summer - extende	d school 7/11 through 7/28/2016	52.4	
1,086.29	Summer - extende	d school 6/19 through 6/29/2017	33.6	
2,699.68	Reported - payroll	records	86 hours	
	Contracts for both	years- reported in correct year		
	Salary and service	reported correctly		
Carlton Banks	ОК	555555		
2016/17				
450.00	Elem Basketball		18	
1,501.00	Subbing during coa	aching	79	
3,738.08	Boys Basketball		160	
2,854.17	Drivers Ed-5/30 thr	ough June 16, 2017	93	
8,543.25	Reported -		350	
	Contracts			
	reported in the corr	rect year		
2017/18				
180.00	 BB camp - 5/29 thr	ough 5/31/2018	9	
1,615.00	Subbing during coa	-	85	
3,910.21	Boys Basketball-11		160	
4,993.56		ough June 25, 2018	156	
10,698.77	Reported -		410	
	Contracts			
	reported in the corr	ect year		
Sheldon Cooper 2016/17	OK	555555		
1,500.00	Kindergarten Work	aban	25	
1,500.00	Reported -	snop	35	
	Contracts			
		oot voor		
	reported in the corr	ect year		
Ted Mosbey	ОК	555555		
10,446.25	2016/17 Contract		368	
10,704.25	2017/18 Contract		368	
	Contracts			
	reported in the corre	ect year		
Sam Malone	OK	555555		
2016/17				
1,500.00	Kindergarten Works	shop	35	
3,904.50	Subbing during con		205.5	
5,404.50	Reported -		240.5	
2017 - 2017 - 2017 - 2017 - 2017 - 2017 - 2017 - 2017 - 2017 - 2017 - 2017 - 2017 - 2017 - 2017 - 2017 - 2017 -	Contracts		100000000000	
	reported in the corre	ect year		

2017/18				
3,765.60	Summer salary June 201	7	Fiscal year 2017	120
753.12	Summer Salary July 201	7	Fiscal year 2018	24
	Reported -			
	Contracts			
	reported in the correct ye	ear		
Joey Tribbiani	OK	555555		
2017/18				
450.00	Elementary Basketball		November 2017	18
1,963.08	MS Boys Basketball		December 2017	80
2,413.08	Reported -			98
	Contracts			
	reported in the correct ye	ear		
Rachel Green	ОК	555555		
2017/18				
3,695.50	Subbing during contract		November 2017	194.5
4,705.02	Wrestling Coach		December 2017	150
8,400.52	Reported -			344.5
	Contracts reported in the correct ye			
	. ,			
George Jefferson	ОК	555555		
2017/18				
4,491.15	Swimming Coach		November 2017	140
	Reported -			
	Reported -			
	Contracts			
		ar		
Lorelai Gilmore	Contracts	ar 555555		
Lorelai Gilmore 2017/18	Contracts reported in the correct ye			
and the second se	Contracts reported in the correct ye		August 2017	140
2017/18	Contracts reported in the correct ye OK		August 2017	140
2017/18	Contracts reported in the correct ye OK Volleyball Coach		August 2017	140
2017/18	Contracts reported in the correct ye OK Volleyball Coach Reported -	555555	August 2017	140
2017/18	Contracts reported in the correct ye OK Volleyball Coach Reported - Contracts	555555	August 2017	140

He taught summer GBB 8/23/2017. The \$200.00 was reported to TFFR. There was no summer contract or continuing contract in place.

Salary was not material and he earned 1 year of sc in another District.

SERVICE HOURS CORRECTION

NAME:

ID:

		(1)	(2) Reported	(3)	(4)	(5)
		Hours	Service	Actual	Reported	Change In
	SCHOOL	Member	Credit	Service	Service	Service
	YEAR	Worked	Hours	Credit	Credit	Credit
1						
	2011-2012			0.000	0.000	0.000
	2012-2013			0.000	0.000	0.000
	2013-2014			0.000	0.000	0.000
	2014-2015			0.000	0.000	0.000

Increase/(Decrease) in Service Hours:

0.000

RETIREMENT AND INVESTMENT OFFICE Internal Audit 2018-2019 1st Quarter Audit Activities Report July 1, 2019 – September 30, 2019

The audit objective of Internal Audit is twofold: first, to provide comprehensive, practical audit coverage of the Retirement and Investment Office (RIO) programs; second, to assist RIO management and the State Investment Board (SIB) by conducting special reviews or audits.

Audit coverage is based on the July 1, 2019 through June 30, 2020 work plan approved by the SIB Audit Committee. The audit activities undertaken are consistent with the Internal Audit charter and goals, and the goals of RIO. To the extent possible, our audits are being carried out in accordance with the International Standards for the Professional Practice of Internal Auditing. Audit effort is being directed to the needs of RIO and the concerns of management and the SIB Audit Committee.

Investment and Agency Audit Activities

Executive Limitation Audit

Each year the SIB conducts a customer satisfaction survey. The purpose of this annual survey is to determine how well the SIB, through the staff of the RIO, is meeting the expectations of its clients. This survey is part of the SIB's ongoing effort to be more responsive to the needs of their clients and to continually improve the services that are provided. Internal Audit facilitated the survey in July and August 2019 and results were provided to the SIB at their October 25, 2019 meeting.

• External Audit Support

Internal Audit provided support to our external audit partners, CliftonLarsonAllen (CLA), during the GASB 68 Census Data Audits. Internal A notified twelve employers of an upcoming GASB 68 Census Data Audit in July 2019. CLA anticipated that GASB 68 Census Data Audit work would conclude in mid-October. In August 2019, Internal Audit sent out twenty-four employer confirmations as part of the financial statement audit.

Investment Due Diligence Audit

Internal Audit developed an audit about the ongoing due diligence that is being performed on the investment managers that have been hired by the SIB. Discussions with investment staff and research went into the development of this new audit program. This audit includes the review of the procedures and documentation that is being done with the investment managers by RIO's staff. This audit was completed and issued in July 2019.

• Administrative Expense Audit

A review of RIO's policies pertaining to travel and expenses which will be compared to OMB policy and state purchasing requirements. A sample of travel vouchers from both board members and staff will be reviewed, including in-state, out-of-state, and international travel to ensure compliance with policy and regulations. A sample of invoices (ex. rent, cleaning, etc.) will be selected. These invoices will be reviewed to ensure proper approvals were obtained, verify invoice with expense voucher, review contract, and review that payment was issued and cleared.

This audit is currently in progress.

Retirement Program Audit Activities

• TFFR Employer Salary Reviews

Internal Audit examines employer reporting to the Teachers' Fund for Retirement (TFFR) to determine whether retirement salaries and contributions reported for members of TFFR for accuracy with the definition of salary as it appears in the TFFR Employer Guide. Other reporting procedures reviewed during the audit process are calculation of service hours and eligibility for TFFR membership. A written report is issued after each review is completed to Retirement Services.

Status of TFFR Employer Audits as of September 30, 2019:

- Three (3) employer audits had been completed.
- One (1) employer audit was in progress.

• File Maintenance

A review of changes made to TFFR member account data by Retirement and Investment Office employees is reviewed on an annual basis. Internal Audit reviews system generated (CPAS) audit tables to ensure transactions initiated by staff are expected and appropriate given an individual's role within the organization. Member accounts are also reviewed to ensure contact and demographic information has been updated correctly per Member Action Forms on file. Other procedures reviewed are change of addresses and the posting of beneficiary deaths that are not in pay status.

The audit fieldwork has been completed and a report will be issued in November 2019.

Administrative Activities

The Supervisor of Internal Audit attended the monthly RIO staff meetings, monthly RIO manager's meetings, divisional meetings, three SIB meetings, and one TFFR meeting. The Internal Audit staff member attended the monthly RIO staff meetings, divisional meetings, two TFFR meetings. The Supervisor of Internal Audit also had meetings with the new audit committee members as part of orientation to the committee.

Professional Development/CE/General Education

The Supervisor Internal Audit is pursuing a Master's in Business Administration with a concentration in Public Administration and completed the following courses: Statistics and Research, Business Ethics, and Foundations of Public Administration.

NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE

AUDIT SERVICES DIVISION

FISCAL YEAR 2019 -2020	FY 2019	FY 2019	FY 2020	FY 2020	FY 2020
	1st QTR	2nd QTR	3rd QTR	4th QTR	TOTAL
Audit Activities					
Retirement Program Audits:					
TFFR Employer Audit Program					283
New England-working with census data file	42				42.25
Warwick Public School District	5				5.25
Wilton	76				76.25
Jamestown Public Schools	67				66.5
General Employer Audits	00				00.05
Audit Peer Reviews/TFFR Meeting(s)/Audit Planning/Audit Notifications	<u>92</u> 1				92.25
Benefits Audit - Deaths, Long-Outstanding Checks, Long-term Members TFFR Cost Effective Benefit Payment Audit	0				0
TFFR Data Analytics	1				1
TFFR File Maintenance Audit	37				37
TFFR Purchase-Refund Audit	0				0
TFFR Task reports	56				56
Annual Salary Verification Project	30				30
Audit Continuous Improvement Project - Employer Audit Program - Census Data Audit File	0				0
nual continuous improvement roject Employer nual rogram census buu nual rice	0				
Agency Administrative and Investment Audits:					
Executive Limitations Audit	10				10
Investment Due Diligence	48				48
Risk Assessment	0				0
Consulting	11				11
RIO External Auditor Assistance	41				41
Administrative Activities					
Administrative - Staff Mtgs, Time Reports, Email, Records Retention, General Reporting	170				170
Audit Committee/SIB/TFFR Attendance and Preparation	162				162
Professional Development/CE/General Education	2				2
Annual Leave, Sick Leave, and Holidays	190				190
Quarterly Total:	1040	0	0	0	1040

Total Hours for 2019-2020	4,160
D. Thorsen Total Hours 2019-2020	2,080
S. Sauter Total Hours 2019-2020	2080

NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE

INTERNAL AUDIT SERVICES

TFFR EMPLOYER REVIEW OF SALARIES, SERVICE HOURS, AND ELIGIBITY OF TEACHERS REPORTED

JULY 1, 2019 TO JUNE 30, 2020

		EMPLOYER		FISCAL YEARS	TOTAL MEMBERS	REPORT DATE	TOTAL REVIEW HOURS	EMPLOYER CONTRIB'S DR(CR)	MEMBER SALARY ADJUSTED	MEMBER SERVICE CREDIT ADJUSTED	STATUS
× &: •		Reviews Pendin Reviews in Prog Reviews Compl	ress -	(1)							
~	SS	Jamestown		2017-2018	212	10/16/2019	141.00	0.00	0	0	One Finding Noted: Ineligible summer salary was reported without a summer written agreement or without a continuing contract for the next fiscal year.
ፚ	DT	Minot		2017-2018	685						Audit notification sent 9/9/2019- received information 10/25/2019.
•	DT	New England	*	2016-2017	26	7/30/2019	95	(\$185.28)	2	1	Three findings noted: Salaries were reported incorrectly: in-staff subbing was not reported, athletic supervisic was not reported, and contract salary was reported incorrectly, service hours reported incorrectly, and hours were not monitored for retired teachers who returned to covered employment.
•	DT	Wilton	*A	2016-2017	32	8/22/2019	72	\$0.00	5	0	Three findings noted: Salaries were reported incorrectly: athletic supervision was not reported, summer salary was reported in the incorrect fiscal year, and service hours were reported incorrectly.
				Totals	955		308	(\$185.28)	7		_

^ Expanded number of years reviewed

NORTH DAKOTA RETIREMENT AND INVESTMENT OFFICE TFFR EMPLOYER AUDIT PROGRESS AND STATUS REPORT FOURTH AUDIT CYCLE FOURTH AUDIT CYCLE START DATE: May 23, 2016 FOURTH AUDIT CYCLE END DATE:

	Size ID	Auditor	Employer	Anticipated Notification Timeframe	100% or On- site Info Request	Info Received	Audit Started	Report Date	Corrections to Retirement Services	Invoice/Check Received from Retirement Services	Status	Members	Days b/w Info Request and Received (Business Days)	Days b/w Info Received and Report (Business Days)	Days b/w Info Received and Start Date (Business Days)	Days b/w Start and Report (Business Days)	Days w/Retirement Services (Business Days)	Audit Findings	Hours to Complete
	END OF FISCAL YEAR 2017-2018																		
1	S 27-002	DT	ALEXANDER SCHOOL	July 2017	7/31/2017	8/15/2017	2/27/2018	10/25/2018	10/18/2018	10/25/2018	Complete	23	12	436	141	240	7	4 Findings noted	120
2	S 28-051	DT	GARRISON SCHOOL New Bus. Mgr. 11/2016	July 2017	7/31/2017	8/9/2017	8/8/2018	10/29/2018	N/A	N/A	Complete	44	8	446	261	82	0	1 Finding noted	58
3	S 39-028	DT	LIDGERWOOD SCHOOL	July 2017	7/31/2017	9/7/2017	8/1/2018	9/12/2018	N/A	N/A	Complete	45	29	370	235	42	0	1 Finding noted	46
4	S 03-029	DT	WARWICK SCHOOL - NIC REVIEW	March 2018	3/7/2018	4/5/2018	2/28/2019	5/23/2019	N/A	N/A	Complete	31	22	413	236	84	0	4 Findings noted	82
								END OF	FISCAL YEAR	2018-2019									
1	S 21-009	DT	NEW ENGLAND SCHOOL	March 2018	3/9/2018	4/6/2018	5/31/2019	7/30/2019	N/A	N/A	Complete	26	21	480	301	60	0	3 Findings	95
2	S 28-001	DT	WILTON SCHOOL	March 2018	3/14/2018	4/13/2018	6/25/2019	8/22/2019	N/A	N/A	Complete	32	23	496	313	58	0	3 Findings	72
3	L 47-001	SS	JAMESTOWN SCHOOL	March 2019	3/7/2019	4/3/2019	8/27/2019	10/16/2019	N/A	10/25/2019	Complete	212	20	196	105	50	0	0 Findings	141
4	L 51-001		MINOT SCHOOL	August 2019	9/9/2019						Pending	685							
5	L 08-001		BISMARCK PUBLIC SCHOOLS	November 2019								1173							
6	M 35-005		RUGBY SCHOOL									61							
7	M 39-037		WAHPETON SCHOOL									108							
8	M 29-027		BEULAH SCHOOL									66							
9	L 30-001		MANDAN PUBLIC SCHOOLS									342							
10	M 11-041		OAKES SCHOOL									38							
11	M 45-009		SOUTH HEART SCHOOL									38							
12	M 12-001		DIVIDE SCHOOL									40							
13	M 22-001		KIDDER COUNTY SCHOOL DISTRICT									46							
								END OF	FISCAL YEAR	2019-2020									

Internal Audit – North Dakota Retirement and Investment Office Jamestown TFFR Employer Review July 1, 2016 – June 30, 2018 Final Report October 16, 2019

Background

Internal Audit (IA) of the Retirement and Investment Office (RIO) has developed a program to review the required reports and payments for the Teacher's Fund for Retirement (TFFR) members that are made by public school districts and other member employers. This program is in conjunction with and in addition to the audit performed by RIO's external auditors. Independent reports are filed with RIO/TFFR Management upon completion. Independent reports are filed with the Audit Committee of the State Investment Board (SIB) quarterly. All independent reports filed with the Audit Committee of the SIB are published on the RIO website in compliance with North Dakota open records and meetings laws.

This salary review was conducted under the new procedures of the annual AWP instituted in 2019. This report has been forwarded to the following Retirement Services (RS) staff: Deputy Executive Director/Chief Retirement Officer and the Retirement Program Manager. Official reports with any exceptions noted or recommendations will now be issued from RS to the Employer. RS will be responsible for corrections and if any follow-up is needed with the Employer.

<u>Scope</u>

Internal Audit (IA) of the Retirement and Investment Office (RIO) conducted a TFFR Employer Reporting Review designed to test the accuracy of retirement salaries and contributions reported by the Employer to determine accuracy with the definition of salary as it defined in the TFFR Employer Guide. The Employer's master contracts, Employer payment plan, salary schedules, extra-curricular payment schedules, individual teacher contracts, and payroll records were used in the review. Other reporting procedures reviewed during the process included the calculation of service hours and eligibility for TFFR membership.

- Phase I Reviewed the Jamestown reporting history, selected a sample of members for the salary and service hour reviews, requested information from the employer
- Phase II Completed the review of information received from the Employer to determine that salary reported was eligible, members were eligible, and service hours were accurate

Results Summary

There was one error noted in the review. No corrections are recommended as the amount is immaterial. Retirement Services should also notify IA with their responses to the recommendations found within thirty days from the receipt of this report.

Observations, Errors, Recommendations, and Conclusions

Observations, Exceptions, Recommendations, and Conclusions Phase I – Sample Selection

IA reviewed the following information: Employer account history, Employer Summary Reports, and consulted with the Employer Services Coordinator for a summary of monthly reporting practices. A sample of four members was selected for a review of the 2016/17 through 2017/18 fiscal years. The Employer also sent additional information for three members that taught summer school and three retired teachers who returned to covered employment. A sample of eight members were selected to review service hours reported for the 2016/17 through 2017/18 fiscal years.

<u>Observations, Errors, Recommendations, and Conclusions Phase II – Testing of information from the Employer</u>

After reviewing the information received for the 2016-2018 fiscal year, IA noted the following error.

The Employer reported ineligible summer basketball camp salary for one member. The member did not have a summer or continuing contract with the employer. The error was isolated and did not affect other members in the District. No correction is recommended for the account due to the immaterial amount of the ineligible salary reported. No correction for service hours is recommended either, as the member earned a full year of service in another district.

Distribution:

David Hunter, Executive Director/CIO Fay Kopp, Deputy Executive Director/Chief Retirement Officer Shelly Schumacher, Retirement Program Manager



TFFR Employer Reporting Review:Jamestown School DistrictInternal Audit (IA) Report issued:October 16, 2019Retirement Services (RS) Response issued:October 22, 2019

Audit Recommendation:

There was one error noted in the review. No corrections are recommended as the amount is immaterial. The error was isolated and did not affect other members in the District. No correction for service hours is recommended either, as the member earned a full year of service in another district.

Error 1: The Employer reported ineligible summer basketball camp salary for one member. The member did not have a summer or continuing contract with the employer.

Retirement Services Response:

Retirement Services will not correct the over reported salary, contributions, and service hours for the Jamestown TFFR member. Retirement Services will issue a report to Jamestown summarizing findings and recommendations from the review.

CUSTOMER SATISFACTION SURVEY NORTH DAKOTA STATE INVESTMENT BOARD 2019

Evaluation Forms Sent:15Evaluation Forms Returned:11

1. Availability/Responsiveness to Requests (via calls and/or emails)

Excellent Above Average		Average	Poor	N/A
8	3	0	0	0

2. Clarity and Effectiveness of Communications, Reports, and Presentations

Excellent Above Average		Average	Poor	N/A
6	3	2	0	0

3. Frequency of Communications/Reporting

Excellent	Excellent Above Average		Poor	N/A
7	4	0	0	0

4. Knowledge of Investments

Excellent	Above Average	Average	Poor	N/A
8	3	0	0	0

5. Overall value of services provided

Excellent Above Average		Average	Poor	N/A
8	2	1	0	0

2019 Summary of SIB Client Satisfaction Survey Ratings:

	Excellent	Above Average	Average	Poor	N/A
Totals	37	15	3	0	0
Weight	4	3	2	1	0
Percent	67%	27%	5%	0%	0%
Average	3.62				

2018 Summary of SIB Client Satisfaction Survey Ratings:

	Excellent	Above Average	Average	Poor	N/A
Totals	42	8	5	0	0
Weight	4	3	2	1	0
Percent	76%	15%	9%	0%	0%
Average	3.67]			

2017 Summary of SIB Client Satisfaction Survey Ratings:

	Excellent	Above Average	Average	Poor	N/A
Totals	74	16	14	0	0
Grade	4	3	2	1	0
Percent	71%	15%	13%	0%	0%
Average	3.58]			

Overall Customer Satisfaction Survey Comments and Impressions:

Board members have varied degrees for experience/backgrounds and tenure. It's important communications reflect our changing Board. I feel the staff is very knowledgeable and openly communicates and shares their insights. Sometimes in meeting we skip over portions of information which, even though I have read it previously, makes me a little uneasy. Every time I have had any communications (phone, email, or in person) I have always had prompt and well thought out responses. I trust the answers I have gotten to questions and trust is very important in this field. The SIB and RIO staff do excellent work being responsive to requests (most notably via email). In terms of improvements, I believe the upcoming online portal system update will

- be beneficial from the standpoint of accessing information and sending documentation to RIO/TFFR. I also think that email updates from TFFR are helpful and could be slightly more frequent. The RIO staff does an excellent job providing timely and easy to read reports on investments and other pertinent issues. It may be valuable to consider how that information could be packaged to highlight the most valuable information. It currently gets to be a lot of information that can be timely and difficult to review. An executive summary or a restructuring of the most valuable information would be helpful. RIO staff is consistently responsive to requests for additional information.
- You are doing a great job

Both work well our agency. The RIO staff has the expertise and provides good advice for SIB to make decisions. I like the investment allocation process where the respective client works with vendor to determine

- what asset allocation is acceptable. The client asset allocation is already determined and just a need confirmation from SIB.
- At this time can not think of anything interesting. Thank you.

MEMORANDUM

TO: State Investment Board (SIB) Audit Committee

FROM: Sara Sauter, Supervisor of Internal Audit

DATE: November 13, 2019

SUBJECT: Update on Current Internal Audit Activities

Internal Audit typically has multiple audits going on at the same time in different stages. The following is the status of current audits in progress:

Phase 1 – Planning and Notification

Phase 2 – Fieldwork

Phase 3 – Communication with Staff

Phase 4 – Writing Report

Phase 5 – Final Report and Management Response

Internal Audit Activities In-Progress

- Minot TFFR Salary Review Phase 1
- Benefit Payment Audit (Death, Long Outstanding Checks & Long Term Annuitants) Phase 2
- File Maintenance Audit Phase 4
- Administrative Expense Audit Phase 2

Internal Audit is also working with Retirement Services, Administrative Services, and Information Technology Services on tracking retirement program activities.

The Supervisor of Internal Audit attended the Association of Public Pension Fund Auditors (APPFA) conference. Many topics were discussed, such as project governance for system implementation, assurance mapping, risk assessments, ethics, private equity fee, and the changing risk environment.

Internal Staff Auditor attended the local IIA training on critical thinking and skeptical judgment for auditors.

Internal Audit also worked with staff on developing various policies.

The Supervisor of Internal Audit has become the campaign manager for United Way. Various activities have been planned to raise money and attended a campaign kickoff meeting at the capitol.

Internal Audit is proposing the following scopes for the upcoming audits:

Salary Verification

A sample of sixty-five members from 60 different employers are selected, and the accuracy of retirement salaries, member contributions, and employer contributions reported to TFFR are verified. The reasonableness of service hours is reviewed, and eligibility of members is also confirmed.

Executive Limitations

On an annual basis, a review of the Executive Director/CIO's compliance with the State Investment Board (SIB) Governance Manual Executive Limitation Policies A-1 through A-11. The audit will review calendar year 2019.

Internal Control Assessment

The purpose of an internal control assessment is to evaluate existing internal controls and review their effectiveness. The assessment will document controls and review the effectiveness of the system as a whole. An assessment of about 90 questions will cover Internal Audit, Human Resources, Information Technology, Operations, etc. Expansion of areas will be done as needed.

CHARTER OF THE AUDIT COMMITTEE OF THE NORTH DAKOTA STATE INVESTMENT BOARD

PURPOSE

The Audit Committee (the Committee) is a standing committee of the North Dakota State Investment Board (SIB) created to fulfill its fiduciary oversight responsibilities of the North Dakota Retirement and Investment Office (RIO) and to serve as a communications link among the SIB, the RIO's management and Audit Services staff, independent auditors, and others.

The Committee will assist with the integrity of the RIO's financial reporting process and system of internal controls, the RIO's compliance with legal and regulatory requirements, the performance of the RIO's <u>Audit Services Internal Audit</u> function and independent auditors, and the RIO's management of risks in the Committee's areas of responsibility. <u>Audit Services Internal Audit</u> will assist RIO in accomplishing its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

AUTHORITY

The Committee is authorized to provide oversight to the Audit Services-Internal Audit function and the independent audit for the RIO. These activities provide assurance that RIO's financial condition and results of operations are accomplished in accordance with the RIO's policies and procedures and legal and regulatory requirements. The Committee may investigate any activity of the RIO and may retain persons as necessary from within or outside the RIO having special competence to assist the Committee in the accomplishment of its responsibilities.

The RIO's Supervisor of <u>Audit Services Internal Audit</u> will be the staff member reporting administratively to the Executive Director/Chief Investment Officer and functionally to the Committee.

The Executive Director will supervise the administrative activities of the <u>Audit Services-Internal</u> <u>Audit</u> function and independent audit activities such as securing contracts, paying fees, maintaining official reports, and other appropriate activities.

COMPOSITION

The Committee will consist of five members, selected by and approved by the SIB. Three members of the Committee will represent the three groups on the SIB: Teachers' Fund for Retirement (TFFR) Board, Public Employees Retirement System (PERS) Board, and elected and appointed officials, and two members selected from outside of the SIB and the RIO. The SIB should select committee members who are both independent and financially literate.

Membership on the Committee will be for one year or termination of term on the SIB. Vacancies will be filled by the SIB at the first scheduled meeting following the vacancy. There will be no limit to the number of terms served on the Committee

The Committee will elect a Chair, and a Vice Chair. A liaison will be appointed by the Chair. The Chair will preside at all meetings of the Committee. In the absence of the Chair, the Vice Chair will perform the duties of the Chair. The liaison will report annually to the SIB on the results of the independent audit and at least four times a year to the SIB and TFFR board on the activities of the Committee and other pertinent information.

The Committee may form, and delegate authority to, subcommittees when it deems appropriate.

MEETINGS

The Committee will meet generally four times a year, with authority to convene additional meetings, as circumstances require or to adequately fulfill all the obligations and duties as outlined in this charter.

Meeting agendas will be prepared by the Supervisor of <u>Audit Services Internal Audit</u> and approved by the Committee Chair, unless otherwise directed by the Committee and will be provided to the Committee members along with briefing materials before the scheduled committee meeting.

Committee members are expected to attend each meeting, in person or via tele- or videoconference. The Supervisor of Audit Services of Internal Audit, a representative of RIO's management team and others necessary to provide information and to conduct business will attend meetings. The Committee may invite staff of the RIO, auditors or others to attend meetings, as necessary. Meetings will be conducted in accordance with NDCC 44-04-17.1. The Committee may hold executive sessions as allowed under state law.

The Committee will act only on the affirmative vote of three of the committee members at a meeting. To conduct business, a quorum will be three members of the Committee. Should a quorum not be present before a scheduled meeting or during a meeting, the Chair will announce the absence of a quorum and the members will disburse. Meeting minutes will be prepared by the RIO, or as otherwise directed by the Committee. Approved meeting minutes of the Committee will be submitted to the SIB.

RESPONSIBILITIES

The RIO's management is responsible for financial and other reporting, internal controls, and compliance with laws, regulations, and ethics. The Committee has the responsibility to provide oversight in the areas of:

- the reliability and integrity of financial and operating information;
- compliance with policies, plans, procedures, pertinent laws and regulations;
- compliance with the Code of Conduct applicable to the SIB, TFFR Board, and RIO employees;
- safeguarding of assets;
- economical and efficient use of resources; and
- effectiveness of achieving desired results from operations.

To this end, the Committee will:

Independent Audit

- Review the independent auditors' proposed audit scope and approach, including coordination of audit effort with RIO's <u>Audit Services Internal Audit</u> staff and any developments in accounting principles and auditing standards that may affect either the financial statements or the audit.
- Inquire as to any proposed changes in accounting or financial reporting procedures and of any unusual events that could impact the financial statements.
- Review the results of the financial statements report with the independent auditors and the RIO's management, prior to the release of the financial statements report to the SIB and other officials. This review will include the following, as applicable:
 - Any major problems encountered by the independent auditors and the resolution thereof;
 - The effect on the audit of any developments;
 - Any unresolved differences between the independent auditors and the RIO's management;
 - Any other significant comments or recommendations of the independent auditors or the RIO's management;
 - The adequacy of the RIO's internal accounting controls and accounting policies, procedures, and practices; and
 - Understand the scope of independent auditors' review of internal control over financial reporting, and obtain reports on significant findings and recommendations, together with the RIO's management responses.
- Consider the effectiveness of the RIO's internal control system, including information technology security and control.
- Consider whether the financial statements are complete, consistent with information known to committee members, and reflect appropriate accounting principles. This will include the following, as applicable:
 - The accuracy and completeness of the information in other sections of the annual report and related regulatory filings;
 - The significant accounting and reporting issues, including complex or unusual transactions and highly judgmental areas, and recent professional and regulatory pronouncements, and understand their impact on the financial statements; and
 - All matters required to be communicated to the Committee under generally accepted auditing standards with the RIO's management and the independent auditors.
- Review non-audit services, if any, performed for the RIO by the independent auditors.

Audit Services

- Consider the effectiveness of the <u>Audit Services-Internal Audit</u> function, within The Institute of Internal Auditors' *International Professional Practices Framework for Internal Auditing* consisting of the *Definition of Internal Auditing, Code of Ethics and the Standards.*
- Review with the Executive Director and the Supervisor of <u>Audit Services-Internal Audit</u> the audit charter, activities, staffing, and organizational structure of <u>Audit ServicesInternal Audit</u>.
- Review and approve the annual risk-based audit work plan and all major changes to the plan.
- Bring to attention of the Board any internal audit issues the Committee determines significant and appropriate for Board consideration.
- Participate with the Executive Director in the appointment and annual evaluation of the Supervisor of <u>Audit Services Internal Audit</u>. Work with the Executive Director on any changes in staffing, including the addition, termination, or replacement of auditors, and the approval of salary increases and/or promotions other than those authorized by the legislature.

Risk Management

- Obtain information and/or training to enhance the Committee's understanding of organization and its related risk management processes.
- Review the adequacy of the organization's policy on risk management.
- Review the effectiveness of the organization's system for assessing, monitoring, and controlling significant risks or exposures.
- Review management's reports on risks and related risk mitigations.
- Hire outside experts and consultants in risk management, as necessary, subject to full board approval.

Compliance

- Review compliance by TFFR participating employers as it relates to TFFR laws, rules and policies through the receipt of employer audit results.
- Review staff compliance with federal and state laws and North Dakota administrative code as applicable to RIO, the SIB and TFFR Board programs, and the process for communicating the code of conduct to the RIO's staff, and for monitoring compliance through the receipt of the audit results.
- Review the process for communicating and monitoring compliance with the code of ethics, code of conduct, and fraud policies.
- Review the findings of any examinations by regulatory agencies, any auditor observations related to compliance, and the responsiveness and timeliness of management's actions to address the findings/recommendations.

• Obtain updates from the RIO's management and legal counsel regarding compliance matters, as deemed necessary.

Reporting Responsibilities

• Report to the SIB about the Committee's activities, issues, and related recommendations.

Provide a written report annually to the SIB, describing the Committee's composition, responsibilities and how they were discharged, and any other information required.

Other Responsibilities

- Make recommendations to the North Dakota State Auditor's Office, when appropriate, as it relates to selection, evaluation, and termination of independent auditors.
- Obtain the information and training needed to enhance the committee members' understanding of the role of <u>Audit Services Internal Audit</u> and the independent auditor, the risk management process, internal controls, and a certain level of familiarity in financial reporting standards and processes so the Committee may adequately oversee.
- Serve as an open avenue of communication among the SIB, the RIO's management and Audit Service Internal Audits, the independent auditors, and others.
- Serve as an appropriate confidential body for individuals to provide information on potentially fraudulent financial reporting or breaches of internal control.
- Inquire of management and <u>Audit Services</u> <u>Internal Audit</u> regarding the procedures in place for the prevention of illegal payments, conflicts of interest, or other questionable practices.
- Perform other activities related to this charter as requested by the SIB.
- Institute and oversee special investigations as needed.
- Review any other reports the RIO issues that relates to the Committee's responsibilities.
- Review and assess the adequacy of the Committee charter annually, requesting the SIB approval for proposed changes.
- Confirm annually the review of all responsibilities outlined in this charter.

DATE OF CREATION OF COMMITTEE AMENDMENTS: December 14, 1993 DATE AUDIT COMMITTEE CHARTER ADOPTED AND APPROVED: June 24, 1994

REVISED: November 22, 1996, February 13, 1997, November 6, 2001, May 19, 2006, May 18, 2007, June 26, 2009, May 19, 2016, January 25, 2019.



Employer Newsletter

ND Teachers' Fund for Retirement 3442 East Century Avenue, PO Box 7100 Bismarck, ND 58507-7100 701-328-9885 or 1-800-952-2970 www.nd.gov/rio **October 2019**

Did You Review Your Employer Summary Report Yet?

A 2018-19 Employer Summary Report was mailed to each school district at the end of August. It is not too late to review this report and verify that the reported salaries and service hours are correct. Let us know if you find any discrepancies and the accounts will be corrected.

Notification of District Changes Form

It is very important that TFFR has updated demographic information for every employer. Please complete a <u>Notification of School</u> <u>District Changes form</u> if the employer has hired a new Superintendent or Business Manager.

Updated TFFR Employer Guide

The <u>TFFR Employer Guide</u> has been updated and is available on our website.

Please use this as a reference for any questions you may have about the TFFR retirement plan.

TFFR Forms

Some of you are still sending in outdated forms. It is important to use the most recent version when completing TFFR forms. Links to the most commonly used forms by employers are below. Please make sure you are using these versions available on our website.

If you employ a new teacher in your district or one that had a one year or more break in service with your district, a new <u>Member</u> <u>Action Form</u> is needed.

If a new teacher is filling out a Member Action Form, also have them complete a separate <u>Designation of Beneficiary Form.</u>

A <u>TFFR Retired Member Employment</u> <u>Notification Form</u> should be completed if you employ a TFFR retiree. This form must be completed each year a retiree is employed and submitted to TFFR no later than 30 days after employment begins.

Your Vested Interest Newsletter

The October 2019 edition of the <u>Your Vested</u> <u>Interest Newsletter</u> can be viewed on our website. Please take a few minutes to read this informative newsletter.

Secure Link Available for Submitting TFFR Forms

If employers want to electronically submit Member Action, Designation of Beneficiary, TFFR Retired Member Employment forms or other documents containing member personal information, we ask that you do so using our secure file transfer system. This method allows the documents to be submitted in a secure environment.

To initiate the transfer, you simply need to email a TFFR staff member (see below) and ask them to email you the secure link. Then you can upload the document using the secure transfer link provided in the email. This link cannot be reused and you will need to contact TFFR each time you need to submit documents.

- Member Action/Designation of Beneficiary Forms
 Emeil Estalla alringhafand gay
 - Email Estelle <u>ekirchof@nd.gov</u>
- Employer Reports, etc.
 Email Tami <u>tdvolkert@nd.gov</u>
- Retired Member Employment Forms

 Email Denise or Stephanie based on alpha split by school name
 A – K Denise <u>dcweeks@nd.gov</u>
 L - Z Stephanie smstarr@nd.gov

As another secure alternative, some employers have provided a password to allow TFFR staff to open password protected emailed documents.

Retirement Eligibility Report

Upon request, TFFR can provide school districts with a Retirement Eligibility Profile report. This report gives the district a 30year projection regarding TFFR member retirement eligibility. The report also contains the names of individuals for workforce planning purposes. The personal information must be kept confidential. If you are interested in receiving a profile for your district, please contact our office. Due to timing issues with new members and retirees, the retirement eligibility profile is not available from July through October of each year.

Report Card Highlights

The August 2019 edition of the <u>Report Card</u> <u>Newsletter</u> can also be viewed on our website. The newsletter highlights include:

- •Pension Administration Software Project to Begin in 2019
- •TFFR Member Annual Statement Mailing Discontinued
- •TFFR Board Trustee Update



GASB Statement 68 Update

The audited fiscal year <u>2018 GASB</u> <u>Statement 68 information</u> is available on our website. This information includes the Schedules of Employer Allocations and Pension Amounts by Employer, GASB 68 Disclosure Template, and Sample Journal Entries. Employers and auditors can use this information to complete your 2019 financials. The 2019 GASB 68 information will be available in January.

Special Teachers Reportable to TFFR

TFFR defines "special teachers" as special education teachers, guidance counselors, speech therapists, social workers, psychologists, psychologist interns, librarians, audiovisual/media coordinators, technology coordinators, and other staff members licensed by the Education Standards and Practices Board (ESPB) provided they are under a written agreement with a school district or other participating employer to provide teaching, supervisory, administrative, or extracurricular services.



TFFR Employer Audit Information Corner

Sara Sauter Supervisor of Audit Services

Salary Verification Audits

The accurate reporting of retirement salaries along with member contributions, employer contributions, and service hours is vital to the administration of retirement benefits. It is the responsibility of the Teachers' Fund for Retirement (TFFR) to ensure that retirement salaries reported by participating employers, on behalf of the members, are in compliance with the definition of salary as it appears in North Dakota Century Code (NDCC) 15-39.1-04 (10). Each year, Internal Audit randomly selects a group of member accounts and requests additional information from participating employers for the purpose of verifying the accuracy of retirement salaries reported. A total of 65 member accounts from 60 different employers will be randomly selected for review. Notifications will be sent out in November-December 2019. The accounts will be reconciled in January and February 2020.

Reporting errors identified during the salary verification will be forwarded to Retirement Services. Retirement Services will then contact the employer if any changes to the accounts are needed.

Internal Audit staff includes Supervisor of Internal Audit, Sara Sauter and Internal Auditor, Dottie Thorsen.