NORTH Dakota | Teachers' Fund For Retirement
Be Legendary. RETIREMENT & INVESTMENT

ND TFFR BOARD MEETING
Thursday, September 22, 2022, 1:00 p.m.
WSI Board Room (In Person)
1600 E Century Ave, Bismarck, ND
[Click here to join the meeting]

AGENDA

I. CALL TO ORDER AND ACCEPTANCE OF AGENDA

A. Executive Summary
B. Welcome New CFO/COO Ryan Skor

II. ACCEPTANCE OF MINUTES (July 21, 2022)

III. TFFR "PIONEER" PROJECT PRESENTATION (60 minutes) – Mr. Roberts, Sagitec

(Break)

IV. ACTUARIAL AUDIT PRESENTATIONS (75 minutes)[1] – Ms. Murtha

A. Presentation 1 (25 minutes)
B. Presentation 2 (25 minutes)
C. Board Discussion & Selection (25 minutes)

(Break)

V. GOVERNANCE (60 minutes)

A. 2nd Reading on Policy Changes & First Reading on GPR Committee – Ms. Murtha
B. 2023 Legislative Initiatives & Budget Presentation – Ms. Murtha
C. Member/Outreach Update – Ms. Weeks

VI. REPORTS (45 minutes) *Board Action*

A. Annual Audit Report (6/30) – Ms. Sauter
B. Annual Technology Report – Ms. Thiel
C. Quarterly TFFR Ends Report – Mr. Roberts
D. Executive Limitations/Staff Relations Report – Ms. Murtha

VII. Consent Agenda – Disability retirement applications[2]

VIII. OTHER BUSINESS

A. Board Reading Materials – Material References Included
B. Next Meeting:
   1. TFFR Regular Board Meeting Thursday, November 17, 202,2 at 1:00 p.m.
   2. TFFR GPR Committee – Tuesday, November 8, 2022, at 3:30 p.m.

IX. ADJOURNMENT

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[1] Executive Session pursuant to N.D.C.C. 44-04-19.2(6) and 54-44.4-10(2) to sequester competitors during a competitive bidding process and to receive and discuss exempt proposal procurement information during a competitive bidding process.
[2] Executive Session possible if Board discusses confidential member information under N.D.C.C. 15-39.1-30.

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

EXECUTIVE SUMMARY

TFFR Regular Meeting

September 22, 2022 – 1:00 p.m. CT

I. **Agenda:** The **September Board Meeting will be held in the Board Room at the WSI Building to accommodate in person attendance, however, a link will also be provided so that Board members and other attendees may join via video conference.**

- We will begin the meeting by welcoming our New CFO/COO Ryan Skor.

II. **Minutes (Board Action):** The July 21, 2022, Board meeting minutes are included for review and approval.

III. **TFFR "Pioneer" Project Presentation (Information):** Mr. Roberts will provide a status update on the project progress and representatives from the selected vendor solution, Sagitec, will present to the Board.

IV. **Actuarial Audit Presentations (Board Action):** the Board will receive presentations from the Actuarial Audit consultant finalists. An executive session is needed pursuant to N.D.C.C. 44-04-19.2(6) and 54-44.4-10(2) to sequester competitors during a competitive bidding process and to receive and discuss exempt proposal procurement information during a competitive bidding process.

V. **Governance**

A. **2nd Reading on Policy Changes & First Reading on GPR Committee (Board Action):** The Board will have a 2nd Reading and opportunity for final adoption of program policy format and amendments approved for First Reading at the July 2022 meeting, and an Introduction and First Reading of the policy amendment and proposed charter for the GPR committee.

B. **2023 Legislative Initiatives & Budget Presentation (Information):** Ms. Murtha will present to the Board on the budget and decision packages submitted to OMB for the 2023 session and the legislative initiatives they support.

C. **Member/Outreach Update (Information):** Ms. Weeks will provide an update on scheduled outreach efforts presented by the Retirement Services Division.

VI. **Reports (Board Action):** Staff will provide reports on annual audit activities and the NDIT unification process, quarterly TFFR Ends and executive limitations/staff relations.

VII. **Consent Agenda (Board Action):** The Board will receive disability retirement applications via a secure link for review and approval.

Adjournment.

NORTH DAKOTA TEACHERS' FUND FOR RETIREMENT
MINUTES OF THE
JULY 21, 2022, BOARD MEETING

BOARD MEMBERS PRESENT:	Mike Burton, Vice President Thomas Beadle, State Treasurer Cody Mickelson, Trustee Mel Olson, Trustee Jordan Willgohs, Trustee
BOARD MEMBERS ABSENT:	Dr. Rob Lech, President Kirsten Baesler, State Supt. DPI
STAFF PRESENT:	Vicki Alberts, Legal Intern Eric Chin, Deputy CIO Rachel Kmetz, Accounting Mangr Missy Kopp, Exec Assistant Jan Murtha, Exec Dir Matt Posch, Sr. Investment Officer Chad Roberts, DED/CRO Sara Sauter, Supvr of Internal Audit Rachelle Smith, Retirement Assistant Stephanie Starr, Retirement Programs Spec Dottie Thorsen, Internal Auditor Tami Volkert, Employer Svs Coor Susan Walcker, Sr. Financial Accountant
OTHERS PRESENT:	Dean DePountis, Atty. General's Office Mary Carlson, ND RTA

<u>CALL TO ORDER</u>:

Mr. Mike Burton, Vice President of the Teachers' Fund for Retirement (TFFR) Board of Trustees, called the meeting to order at 1:00 p.m. on Thursday, July 21, 2022. The meeting was held in the WSI Board Room, 1600 E Century Ave., Bismarck, ND.

THE FOLLOWING MEMBERS WERE PRESENT REPRESENTING A QUORUM: TREASURER BEADLE, MR. BURTON, MR. MICKELSON, MR. OLSON, AND MR. WILLGOHS.

Ms. Murtha introduced Chad Roberts, the new Deputy Executive Director/Chief Retirement Officer, Rachel Kmetz, the new Accounting Managers, and Vicki Alberts, the new Legal Intern.

<u>ACCEPTANCE OF AGENDA</u>:

The Board considered the agenda for the July 21, 2022, meeting.

IT WAS MOVED BY TREASURER BEADLE AND SECONDED BY MR. OLSON AND CARRIED BY A VOICE VOTE TO APPROVE THE AGENDA AS DISTRIBUTED.

AYES: TREASURER BEADLE, MR. BURTON, MR. MICKELSON, MR. WILLGOHS, AND MR. OLSON
NAYS: NONE

ABSENT: SUPT. BAESLER AND DR. LECH
MOTION CARRIED

MINUTES:

The Board considered the minutes of the April 21, 2022, TFFR Board meeting.

IT WAS MOVED BY TREASURER BEADLE AND SECONDED BY MR. MICKELSON AND CARRIED BY A VOICE VOTE TO APPROVE THE MARCH 25, 2022, MINUTES AS DISTRIBUTED.

AYES: MR. MICKELSON, MR. OLSON, TREASURER BEADLE, MR. BURTON, AND MR. WILLGOHS
NAYS: NONE
ABSENT: SUPT. BAESLER AND DR. LECH
MOTION CARRIED

GOVERNANCE:

Election of Officers:

Pursuant to TFFR policy, the Board must elect officers at the first meeting of each fiscal year.

IT WAS MOVED BY MR. OLSON AND SECONDED BY MR. MICKELSON AND CARRIED BY A ROLL CALL VOTE TO CAST A UNANIMOUS BALLOT FOR DR. LECH AS PRESIDENT AND MR. BURTON AS VICE PRESIDENT.

AYES: TREASURER BEADLE, MR. WILLGOHS, MR. OLSON, MR. BURTON, AND MR. MICKELSON
NAYS: NONE
ABSENT: SUPT. BAESLER AND DR. LECH
MOTION CARRIED

IT WAS MOVED BY MR. WILLGOHS AND SECONDED BY TREASURER BEADLE AND CARRIED BY A ROLL CALL VOTE TO CAST A UNANIMOUS BALLOT FOR MR. BURTON AS SIB ALTERNATE, MR. MICKELSON, DR. LECH, AND MR. OLSON AS SIB TRUSTEES, AND MR. MICKELSON AS SIB AUDIT COMMITTEE MEMBER.

AYES: MR. WILLGOHS, MR. BURTON, MR. MICKELSON, MR. OLSON, AND TREASURER BEADLE
NAYS: NONE
ABSENT: SUPT. BAESLER AND DR. LECH
MOTION CARRIED

State Investment Board (SIB) Customer Satisfaction Survey:

Ms. Sauter shared the process for completing the SIB Customer Satisfaction Survey. Ms. Sauter will send the survey to TFFR Board members on behalf of the Board President in August. The Board President will submit the compiled results to the SIB. The TFFR Board will review the compiled responses at the September 22, 2022, meeting.

Annual TFFR Program Review:

Ms. Murtha presented the Annual TFFR Program Review. The Board reviews TFFR Board Awards, the Program Monitoring Summary, Customer Satisfaction Reports, and completes the Code of Conduct Policy Affirmation. TFFR Employees were rated as excellent or above average in almost every category. There were positive comments about the online format for outreach along with some constructive feedback. There was consistent feedback about lower satisfaction with paper-based processes which highlights the need for the new PAS.

IT WAS MOVED BY MR. OLSON AND SECONDED BY MR. MICKELSON AND CARRIED BY A ROLL CALL VOTE TO ACCEPT THE ANNUAL TFFR PROGRAM REVIEW.

AYES: MR. OLSON, MR. MICKELSON, MR. WILLGOHS, TREASURER BEADLE, AND MR. BURTON
NAYS: NONE
ABSENT: SUPT. BAESLER AND DR. LECH
MOTION CARRIED

Annual Governance Policy Review Report/Governance & Policy Review (GPR) Committee Update:

Ms. Murtha provided an update from the GPR Committee. Last year, the Board voted to keep the GPR as an ad hoc committee to do a more comprehensive review of governance policies and to fulfill the requirement that the Board review all policies annually. At the June 2020 meeting, the Board repealed and replaced several policies which were included in a new manual. The remaining policies remained active but were not moved into the updated manual. The GPR recommends moving all the remaining policies into the new manual for greater efficiency as the Committee continues to review policies.

The Committee have brought seven policies and one exhibit with changes for a first reading. Ms. Murtha reviewed the proposed policy changes.

Mr. Mickelson discussed the GPR recommendation to transition the Committee from an ad hoc to a standing committee that will bring proposed policy amendments to the Board for consideration and approval on a rolling basis.

IT WAS MOVED BY MR. OLSON AND SECONDED BY TREASURER BEADLE AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE UPDATED TFFR BOARD PROGRAM MANUAL FOR FIRST READING.

AYES: MR. BURTON, MR. WILLGOHS, MR. OLSON, TREASURER BEADLE, AND MR. MICKELSON
NAYS: NONE
ABSENT: SUPT. BAESLER AND DR. LECH
MOTION CARRIED

IT WAS MOVED BY TREASURER BEADLE AND SECONDED BY MR. OLSON AND CARRIED BY A ROLL CALL VOTE TO APPROVE FOR FIRST READING AMENDMENTS TO POLICIES II. D. 3, 4, & 5; II. E. 2 & 3; II. F. 1; II. G. 1; AND SECTION II EXHIBITS.

AYES: MR. WILLGOHS, MR. MICKELSON, TREASURER BEADLE, MR. BURTON, AND MR. OLSON
NAYS: NONE
ABSENT: SUPT. BAESLER AND DR. LECH

MOTION CARRIED

IT WAS MOVED BY MR. OLSON AND SECONDED BY TREASURER BEADLE AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE GPR COMMITTEE AS A STANDING COMMITTEE.

AYES: MR. BURTON, MR. WILLGOHS, MR. OLSON, TREASURER BEADLE, AND MR. MICKELSON
NAYS: NONE
ABSENT: SUPT. BAESLER AND DR. LECH
MOTION CARRIED

Actuarial Audit RFP Review & Approval:

Ms. Murtha provided an update on the Actuarial Audit Request for Proposal (RFP) process. At the March 2022 meeting, the Board gave approval for staff to initiate the procurement process for an actuarial audit. With the assistance of State Procurement, staff developed the RFP for Board review and approval. The RFP has been reviewed and approved by legal counsel. If approved by the Board, staff will issue the RFP and will bring forward finalists to the Board at the September meeting. The finalists will present, and the Board will make an award. The final audit report will be presented at the January 2023 meeting.

IT WAS MOVED BY TREASURER BEADLE AND SECONDED BY MR. MICKELSON AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE RFP FOR AN ACTUARIAL AUDIT AND APPROVE STAFF TO PROCEED WITH THE PROCUREMENT PROCESS AS OUTLINED.

AYES: TREASURER BEADLE, MR. OLSON, MR. BURTON, MR. MICKELSON, AND MR. WILLGOHS
NAYS: NONE
ABSENT: SUPT. BAESLER AND DR. LECH
MOTION CARRIED

Member/Stakeholder Outreach Update:

Ms. Weeks provided an update on TFFR outreach activities. Staff presented at the TFFR Retirement Education Workshop this week. Staff worked with ND United which helped to market the event. This resulted in increased attendance from previous years. Ms. Weeks highlighted upcoming events that staff will attend or present at including the ND Career and Technical Education Conference, Retired Teachers Association Convention, individual counseling sessions, and in-person/virtual group counseling sessions.

Pension Administration System (PAS) Project Update:

Ms. Murtha provided an update on the PAS project. The project is currently in Phase 3 which started with an on-site kick-off meeting with the vendor, consultant, and staff. Staff are working to finalize the Project Management Plan which will be approved by the Executive Steering Committee. Staff conducted a contest internally to name the project. The successful name was “Pioneer” project.

Employee Benefits Programs Committee (EBPC) Update:

Ms. Murtha provided an update from two EBPC meetings held since the last TFFR Board meeting in April. TFFR submitted a bill which was accepted by the Committee. Actuarial analysis of the bill was completed by Segal. Another bill was submitted that would impact TFFR. Board discussion followed.

BOARD EDUCATION:

Investment Manager Selection Process:

Mr. Chin provided education on the investment manager selection process. The manager lifecycle includes the selection process, monitoring, and termination. Staff are continually monitoring managers to assure they are doing what they were hired to do. Mr. Chin reviewed the capabilities of a good manager, how these capabilities impact a fund, and the manager selection process. Board discussion followed.

The Board recessed at 2:59 p.m. and reconvened at 3:15 p.m.

REPORTS:

Quarterly Investment Report:

Mr. Posch provided the TFFR Investment and Performance update as of May 31, 2022. The returns this year have been mostly negative except for the real estate index. The 1-year benchmark is positive primarily because of the Private Equity portion of the portfolio. Year to date, TFFR's total relative return is -0.73%. The 5-year return is 0.02% above the policy benchmark. TFFR has a solid performance across multiple time frames relative to peers. Asset allocation has been strong for the plan. Private Equities allocation increased from 7.6% in June 2021 to 10.08% in March 2022. Staff is working towards reallocating World Equities to Domestic and International Equities.

Quarterly Internal Audit (IA) Report:

Ms. Sauter provided the IA Report for the quarter ending March 31, 2022. The external auditors, CLA, kicked off the 2022 fiscal year audit and were on site for field work. CLA expects the final reports to be presented at the November 2022 SIB Audit Committee meeting. The Committee approved the audit workplan for the next year. The workplan is very fluid as IA needs to adjust as needs change.

Quarterly TFFR Ends Report:

Ms. Weeks provided the TFFR Ends report for the quarter ending March 31, 2022. TFFR Member Online activity continues to increase with 35% of active members and 24% of retirees registered for this service. Staff provided a new employer outreach program called TFFR Info Mixers which are 45-minute virtual education opportunities. The first offering was in February 2022 with 42 attendees.

Executive Limitations/Staff Relations Report:

Ms. Murtha provided the Executive Limitations/Staff Relations Report. Chad Roberts, the new Deputy Executive Director/Chief Retirement Officer started on July 11, 2022. The new Chief Financial Officer/Chief Operating Officer will start on August 22, 2022. That position has a pending reclassification appeal with HRMS. The Legal Intern position was filled, and the internship was completed this summer. The investment positions were posted and have closed. We have many quality candidates and staff are working on interviews. The Programs Outreach Coordinator position will be posted in August 2022.

The Legacy Fund Asset Allocation study is in progress. RVK continues to work on the study and provided preliminary recommendations to the Advisory Board on June 30, 2022. The TFFR Pioneer Project continues with implementation consistent with the project plan. Staff are working with Northern Trust on new infrastructure for the investment program. Board members have their new state email accounts which will be used for Board information going forward.

IT WAS MOVED BY TREASURER BEADLE AND SECONDED BY MR. MICKELSON AND CARRIED BY A ROLL CALL VOTE TO ACCEPT THE QUARTERLY INVESTMENT, QUARTERLY IA, QUARTERLY TFFR ENDS, AND EXECUTIVE LIMITATIONS/STAFF RELATIONS REPORTS

AYES: MR. BURTON, MR. MICKELSON, MR. WILLGOHS, MR. OLSON, AND TREASURER BEADLE
NAYS: NONE
ABSENT: SUPT. BAESLER AND DR. LECH
MOTION CARRIED

CONSENT AGENDA:

IT WAS MOVED BY MR. MICKELSON AND SECONDED BY TREASURER BEADLE AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE CONSENT AGENDA – DISABILITIES 2022-3D AND 2022-1D.

AYES: MR. OLSON, MR. WILLGOHS, MR. MICKELSON, TREASURER BEADLE, AND MR. BURTON
NAYS: NONE
ABSENT: SUPT. BAESLER AND DR. LECH
MOTION CARRIED

ADJOURNMENT:

With no further business to come before the Board, Vice Pres. Burton adjourned the meeting at 4:42 p.m.

Prepared by,

Missy Kopp
Assistant to the Board

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MEMORANDUM

TO: TFFR Board
FROM: Chad Roberts, DED/CRO
DATE: September 14, 2022
RE: PAS Project Update and Introduction of Sagitec Solutions

Update on TFFR Pension Administration Software project

The "kickoff" meeting, technical requirements meetings and legacy data review meetings have been completed. Those meetings spanned the period of May through August of 2022. The schedule for the first phase of elaboration has been established and will run through mid-December 2022. The first phase of elaboration meetings began the second week of September.

There have been two staffing changes in NDIT support personnel for this project. There was a resignation of both the project manager and a business analyst. Both positions will be filled by NDIT in the near future and are not expected to create delays in the schedule.

Additionally, additional technical support was identified as needed from Avenu-CPAS for the migration of legacy data to the new system. The cost of that assistance will be accounted for from the contingency budget of the project.

Sagitec Solutions will present a demonstration of the software the new pension administration system will be built upon.

After a competitive bidding process, the contract for the new pension administration system for the Teachers Fund for Retirement was awarded to Sagitec Solutions. Sagitec Solutions' product, Neospin, is the selected software platform to build the new pension administration system upon.

Sagitec Solutions is based in St. Paul, Minnesota with offices throughout the United States and in India.

The Sagitec Solutions team assigned to this project is led by Vasudevan Sridharan, a Director with the company. Working directly under Mr. Sridharan is the project manager, Sriram Ramanujam. Both Mr. Sridharan and Mr. Ramanujam has extensive experience in software development and specifically in the pension administration system.
The initiative, led by Mr. Sridharan and Mr. Ramanujam, is staffed by a team of developers, software engineers and software architects with extensive experience in their respective areas.

The project "kick-off" was held in May of 2022 and technical requirement sessions were held through June, July, and August. The project has now entered the next stage, elaboration. During this stage the Sagitec Solutions team is working closely with the TFFR team and other RIO staff to clearly identify and delineate the needs and customizations of the Neospin product to best suit the operations and needs of the TFFR staff and participants.

BOARD INFORMATION ONLY. No board action required.

ND TFFR PAS Project Execution

Board Presentation

Thursday, September 22, 2022

Agenda

- Introduction
- Sagitec Overview
- Neospin^{TM} Overview and Features
- PAS Project
  - Project Phases and Timeline
  - Project Current Status and Next steps
- Neospin^{TM} Demo
- Questions

Introduction

Introduction – Sagitec Team

Role	Staff Name
Account Manager	Vasudevan Sridharan
Project Manager	Sriram Ramanujam
Functional Manager	Santhosh Rao
Delivery Manager	Rohan Adgaonkar

Introduction – Sagitec Team

Role	Staff Name
Development Manager	Kannan Ganesan
QA Manager	Sasikala Napa
Data Manager	Karthikeyan Jothi
Hosting/Infrastructure Director	Jeff Pea
Training Director	Amy Schroeder
ECM Director	Prasanna Kumar

Sagitec Overview

Company Overview

OVER
1100
EMPLOYEES
WORLDWIDE

- Grown steadily using internal funding from project profits
- Financially independent of outside investors or lenders
- 3 major business units – Pension, Unemployment Insurance, Health & Life Sciences

Pension Experience

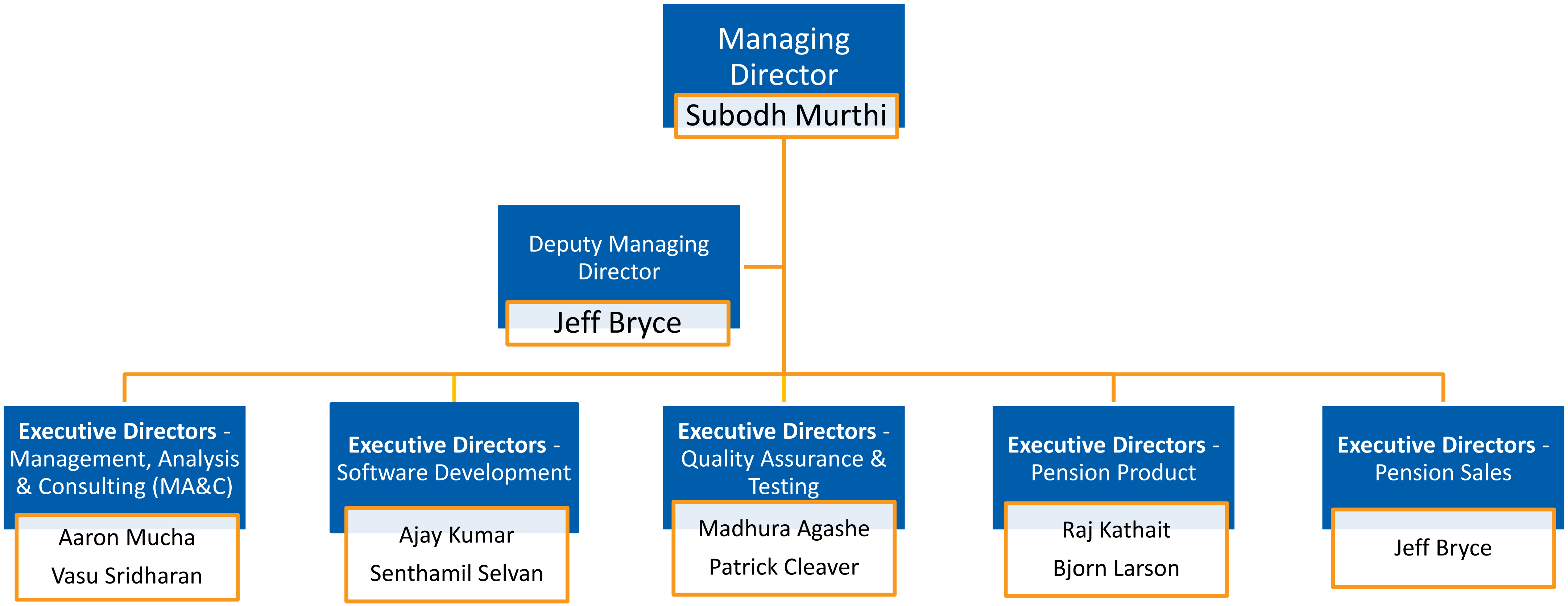
- 28 Neospin™ Pension Administration Clients
- Size ranges from CalSTRS >750,000 to St. Paul Teachers < 7,000
- Six clients have Educator Plans
- Eight clients serve educators exclusively like ND TFFR
- No client has ever replaced our system with another solution
- Actively serve on the NCTR Technical Advisory Board

Pension Experience

- Eight clients serve educators exclusively like ND TFFR

Teachers’ Retirement System Of The City Of New York (TRSNYC)	California State Teachers' Retirement System (CalSTRS)
University Of California Retirement System (UCRS)	Kentucky Teachers’ Retirement System (KTRS)
Public School And Education Employee Retirement Systems Of Missouri (PSRS/PEERS)	School Employees Retirement System Of Ohio (OSERS)
St. Paul Teachers’ Retirement Fund Association (SPTRFA)	Chicago Teachers' Pension Fund (CTPF)

Pension Org Chart



Neospin^{TM} Overview and Features

Sagitec's Unique Value Proposition (UVP)

- Lowest Lifetime Total Cost of Ownership
  - Neospin^{TM} is built on top of the market leading Sagitec Framework
  - Each layer of the architecture is independent and can evolve independently
  - Research & Development center keeps the Sagitec Framework current
  - Integrated Development Platform - Requirements Tracking (Neotrack^{TM}), Developer tools and Test Tools

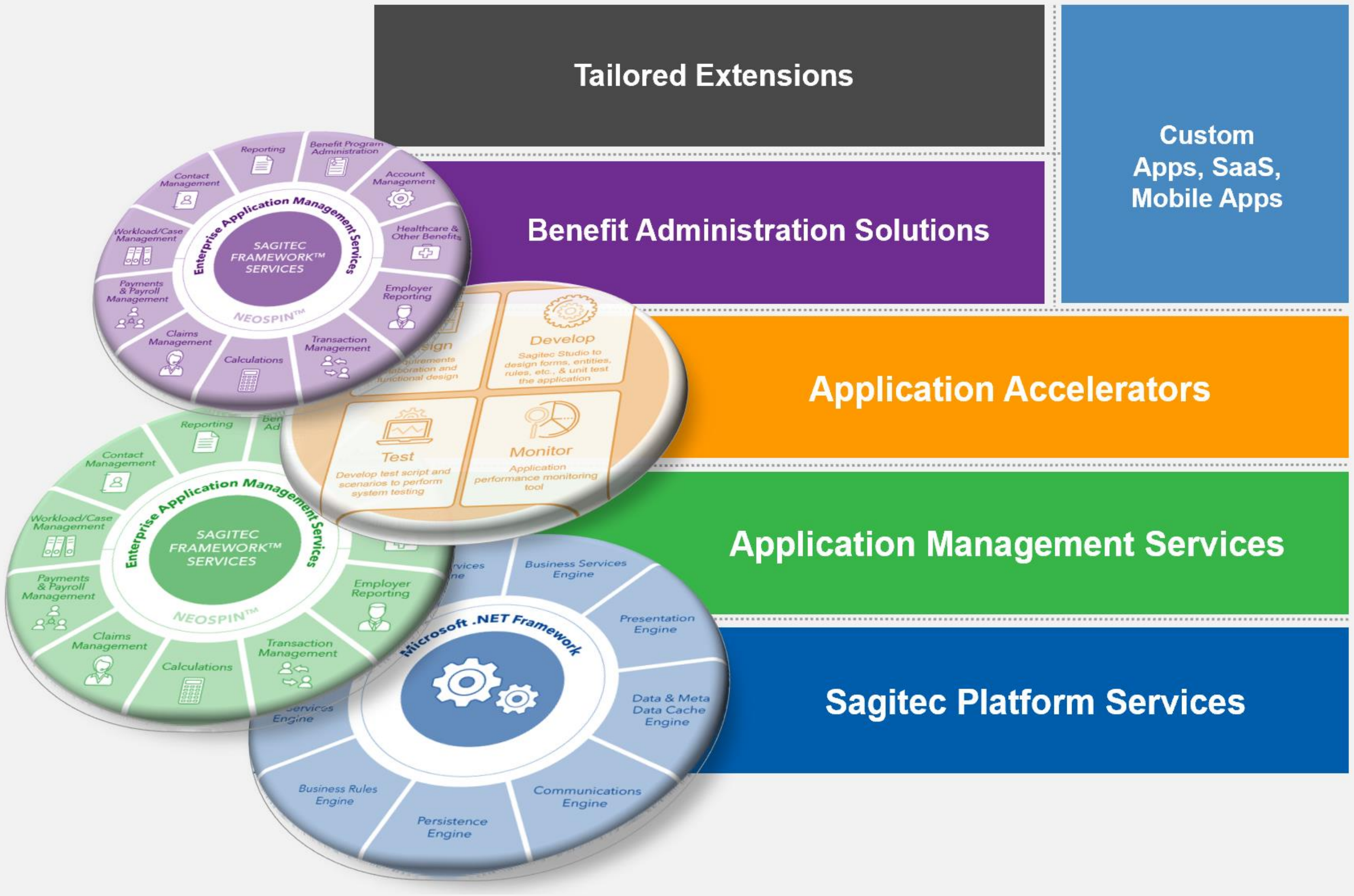
Eliminate Technical Obsolescence

Predictable Upgrades at Predictable Cost

Committed to Effective IT Transition

Neospin™ Overview

Key Components of Neospin™



Neospin™ Layered Architecture is at the heart of evolution, providing a highly configurable and adaptable solution.

We provide you the tools to **allow your customizations to evolve with your Neospin Solution**. Customizations do not impact your upgrade path.

Neospin™ Features

Improve efficiency and performance

Our solution and implementation approach is designed to eliminate process inefficiencies through automation and business process reengineering. Using BPM tools to manage workflows enables your staff to process things quickly and efficiently.

Improve Customer Service

Chatbot

Self –Service Portal

Mobile Application

Infrastructure is the Best

Hosting

Security

Disaster Recovery

Hosting Security

Microsoft Azure Cloud Security

- Physical hosts
- Physical network
- Data center

Sagitec – FedRAMP Governance

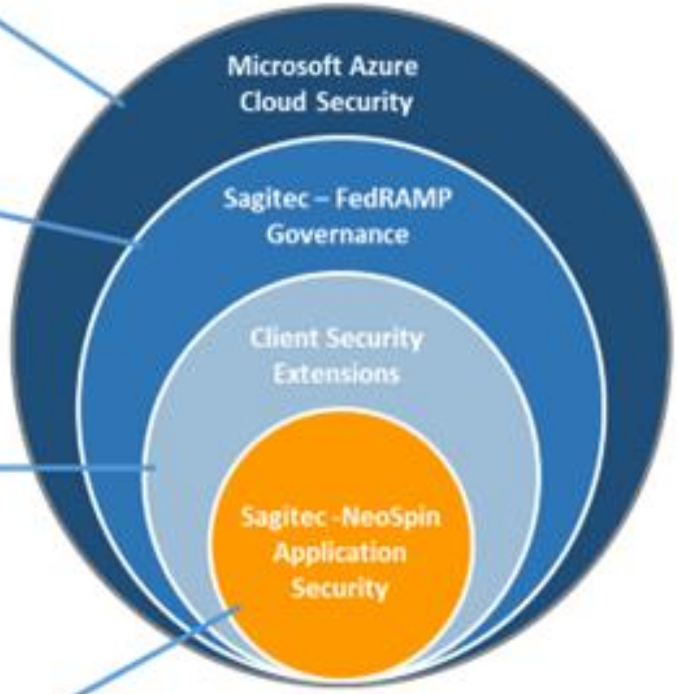
- Security Operations Center
- Automated/Scripted network & server hardening
- ESET Endpoint security or Defender ATP
- Privileged Access Management (PAM)
- Vulnerability Management
- 3rd-Party penetration testing

Client Security Extensions

- Requirements Crosswalk
- Example – IRS-1075, PCI
- Information Security Policy
- System Security Plan
  - Up to 350 pages
- Security Sign-off

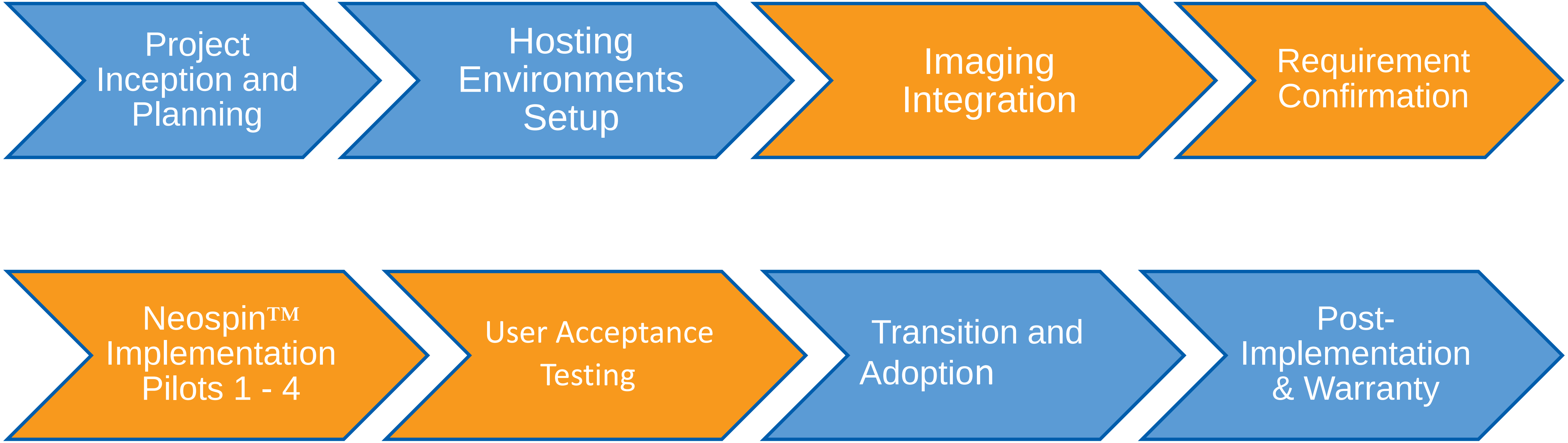
Sagitec - NeoSpin Application Security

- Data Encrypted at Rest and in Motion
- All transport layers encrypted: SSL, AES-256
- Special treatment for Classified Data like PII and other sensitive information
- Internal user authentication by AD/SAML
- External user authentication by multi-factor Entrust Authentication
- Fine-grained Role-based Authorization

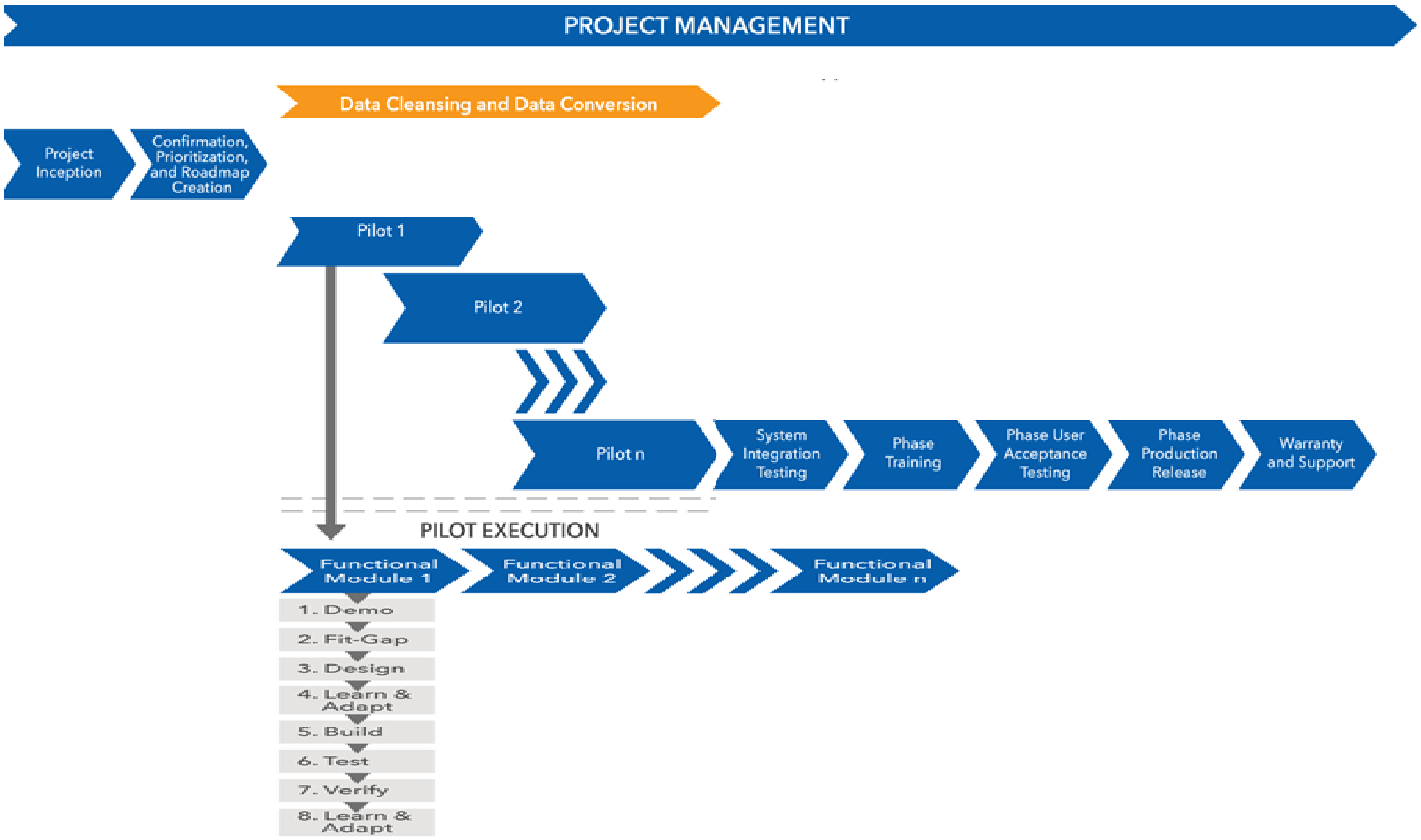


PAS Project

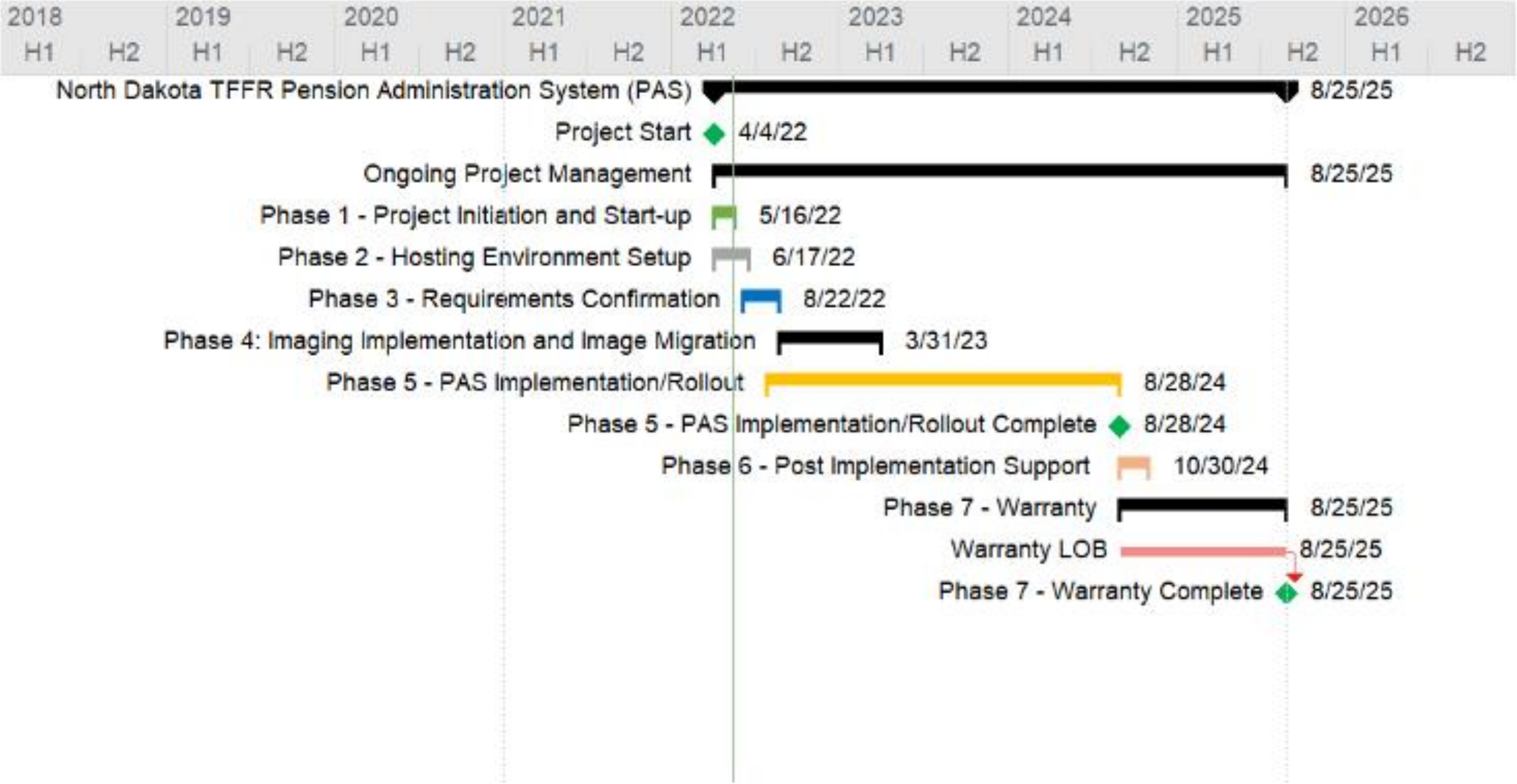
Project Phases



Project Execution Methodology Overview



Project Schedule – Gantt Chart



Project Timeline

Phase	Activity	Start Date	End Date
Phase 1	Project Initiation and Start-up	4/4/2022	5/20/2022
Phase 2	Hosting Environments Setup	4/4/2022	6/17/2022
Phase 3	Requirements Confirmation	6/6/2022	8/22/2022
Phase 4	Imagining System Implementation and Migration	9/26/2022	3/31/2023
Phase 5	PAS Implementation/Rollout	8/26/2022	8/28/2024
PAS Project Production Implementation - Go-Live		**8/28/2024**	
Phase 6	Post-Implementation Support	8/29/2024	10/30/2024
Phase 7	Warranty	8/29/2024	8/25/2025

PAS Project Update

Project Update – Current Status

- Project Initiation Phase - Complete
  - Project Startup Activities - Onboarding Project Team/Project Kickoff
  - Project Planning - Project Management Plan Documents; Establishing Project governance

- Infrastructure Setup – Complete
  - Procured Azure Workspaces and created Neospin environments

- Requirements Confirmation Phase - Complete
  - Reviewed Requirements with the ND TFFR/NDIT staff for the confirmation
  - Finalized the RTM (Requirements Traceability Matrix)

- Data Conversion Preparation - Complete
  - Developed Data conversion approach
  - Completed Legacy Data Review meetings

Project Update – Next steps

- PMO Meetings – Ongoing
  - Weekly Project Planning and Status meetings with the ND TFFR Leadership
  - Established and Maintaining Project Registers – Decision, Action Items, Issues, Risks

- Elaboration and Design Phase – Pilot 1
  - Requirements Elaboration sessions planned through end of the year
  - Define Requirements and complete Design

- Data Conversion – Pilot 1
  - Data Mapping – Source to Target

- Development and Testing – Pilot 1

Neospin^{TM} Demo

Neospin^{TM} Demo Scenarios

- Employer Experience Overview
  - Employer posting employees' payroll contribution
- Member Experience Overview
  - Member updates Demographic information
  - Member creates estimate and submits Retirement Application for Approval (workflow)
  - View benefit statement/Tax statement
  - Member contacts ND TFFR through Chatbot
- Line of Business – Internal Application Overview
  - Approve Retirement application workflow initiated by Member
  - Workflow Dashboard
  - Correspondence Capabilities
  - Rules Engine

Questions?

Thank You!

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MEMORANDUM

TO: **TFFR Board**
FROM: **Jan Murtha, Executive Director**
DATE: **September 16, 2022**
RE: **Actuarial Audit RFP**

At its March 2022, the Board approved RIO staff to initiate procurement process for actuarial audit, subject to approval by the Board. Staff, with the assistance of State Procurement, developed the RFP for your review and approval. The Board approved the RFP at its July 2022 meeting and it was issued. Staff reviewed proposals as described in the RFP and have requested finalists to appear before the Board at its September meeting for Board selection and award issuance.

Two finalists will present to the Board. It is recommended that the presentation and selection discussion be held in executive session pursuant to N.D.C.C. 44-04-19.2(6) and 54-44.4-10(2) so as to sequester competitors during a competitive bidding process and to receive and discuss exempt proposal procurement information during a competitive bidding process.

The presentation materials will be provided to board members via a secure link.

BOARD ACTION REQUESTED: Move to enter into Executive Session pursuant to N.D.C.C. 44-04-19.2(6) and 54-44.4-10(2) to sequester competitors during a competitive bidding process and to receive and discuss exempt proposal procurement information during a competitive bidding process.

NORTH Dakota | Retirement and Investment

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MEMORANDUM

TO: TFFR Board
FROM: Jan Murtha, Executive Director
DATE: September 14, 2022
RE: 2nd Reading on Policy Changes & First Reading on GPR Committee

I. Introduction

At the July 21, 2022 Board meeting the TFFR Board approved the following changes to the TFFR Governance Manual:

1. Merge the outstanding sections of the prior policy manual into the new policy manual adopted by the Board at its June 25, 2020, special meeting for Introduction & First Reading. A history and reconciliation of these sections is included in Part II of this memo.
2. Approved policy amendments to B-8, B-9, C-4, C-5, C-6, C-8, C-9 and exhibits of the prior manual as set forth in Section III of this memo for Introduction and First Reading.
3. Convert the TFFR GPR Committee into a standing committee of the TFFR Board for Introduction and First Reading.

II. Converting and Merging the Manuals

At the June 25, 2020, special TFFR Board meeting the Board voted to repeal and replace the following policies with the updated TFFR Board Program Manual Board Governance policies:

Introduction and Ends Policies

A-1 Introduction
B-1 Mission
B-2 Goals
B-I Exhibit – Plan Characteristics
B-II Exhibit – TFFR Responsibilities
B-III Exhibit – SIB Responsibilities

Program Policies

C-I Board Agenda
C-2 Board Meetings
C-3 Board Members Code of Conduct
C-18 Board Travel
C-21 Board Appeals
C-22 Board Communications
C-23 Board Policy Introduction/Amendment/Passage

By-Laws (All)

D-1 Authority
D-2 Board of Trustees
D-3 Officers and Duties
D-4 Meetings
D-5 Committees
D-6 Rules of Order
D-7 Administrative Office
D-8 Amendments

This Board action left the below Board policies active but not yet incorporated into the New Manual Format. At the July 7, 2022, TFFR GPR committee meeting, Staff recommended, and the committee agreed that moving all current active policies into one document was more efficient, reduced confusion, and illustrates greater transparency. The following table illustrates the proposed transition for the remaining policies and exhibits:

Old Manual Policy Name	Old Manual	New Manual (Proposed)
Plan Beneficiaries	B-3	II.D.11.
Actuarial Funding Policy Statement	B-4	II.C.
Investment Policy Statement	B-5	II.A.
Membership Data and Contributions	B-6	II.D.1.
Member Services	B-7	II.D.2.
Account Claims	B-8	II.D.4.
Trust Fund Evaluation & Monitoring	B-9	II.G.1.
Plan Management Policy	B-10	II.B.
Asset Allocation Definitions	Exhibit B-IV	Section II Exhibits
Deductions from Annuity Checks	C-4	II.D.5.
Disclosure of Confidential Information for Treatment, Operational, or Payment Purposes	C-5	II.D.3.
Disclosure to Membership	C-6	II.F.1.
Employer Payment Plan Models	C-7	II.E.1.
Employer Reporting Errors	C-8	II.E.2.
Employer Reports	C-9	II.E.3.
Head Start Program Employees	C-10	II.D.12.
Information Dissemination	C-11	II.F.2.
Level Income Option	C-12	II.G.2.

Military Service Credit	C-13	II.D.6.
Outreach Program Facilities	C-14	II.F.3.
Payment of Benefits	C-15	II.D.7.
PERS Retirement Plan Election (DPI and CTE)	C-16	II.D.13.
Retirement Benefit Payments	C-17	II.D.8.
Voiding Checks	C-19	II.D.9.
Ineligible TFFR Salary	C-20	II.E.4.
In-staff Subbing Contract Period	C-24	II.D.10.

ACTION REQUESTED: Motion to Approve New Manual Format for Second Reading and Final Adoption.

III. July 2022 TFFR Board Proposed Amendments for Second Reading & Final Adoption.

At the July TFFR Board meeting, the committee reviewed policies: B-8, B-9, C-4, C-5, C-6, C-8, and C-9 from the prior Program Policy Manual and approved the following changes for Introduction & First Reading.

Old Manual	New Manual	Change
B-8	II.D.4	II.D.4. Amend to reference D. 5
B-9	II.G.1.	Remove due to duplication of I.K-1 in New Manual. Located at end of New Policy Manual
C-4	II.D.5	
C-5	II.D.3.	Amend to reduce redundancy with statute.
C-6	II.F.1.	Amend to provide flexibility
C-8	II.E.2.	Amend to provide flexibility
C-9	II.E.3.	Amend to provide flexibility
	Section II Exhibits	Amend Asset Allocation definitions to reflect evolving definitions of indexes.

Pursuant to Policy I.T. in the New Manual, proposed policy amendments require two readings before the full Board to pass and amendments may be proposed at any time. The proposed amendments will be submitted for legal review prior to 2nd reading and final adoption.

ACTION REQUESTED: Motion to Approve amendments to Policies II.D.3,4,5, II.E.2,3, II.F.1., II.G.1., and Section II Exhibits for Second Reading & Final Adoption.

IV. TFFR GPR Committee Introduction & First Reading.

At the July 2022 meeting of the TFFR Board, the Board approved proceeding with changes to convert the TFFR GPR committee into a standing committee of the Board. Language reflecting this change has been added to the TFFR Policy Manual (p. 25) and a proposed charter is included for your review. The policy amendment and proposed charter are modeled after the SIB GPR committee.

ACTION REQUESTED: Motion to approve Introduction and First Reading of policy amendment and proposed charter for TFFR GPR committee as a standing committee.

NORTH Dakota | Teachers' Fund For Retirement

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Board Program Manual

ND TEACHERS' FUND FOR RETIREMENT (NDTFFR) BOARD

PROGRAM MANUAL

Contents

ND TEACHERS' FUND FOR RETIREMENT (NDTFFR) BOARD

PROGRAM MANUAL

SECTION I: TFFR GOVERNANCE POLICIES

A. Introduction and Purpose

The ND Teachers' Fund for Retirement (TFFR) Board of Trustees is dedicated to ethically serving the members and stakeholders of the TFFR pension plan and ensuring that the plan is effectively managed. The Board is committed to excellence in Board governance. An effective governance structure is essential to fulfilling fiduciary duties and Board responsibilities in accordance with the highest standards of professional responsibility, accountability, and transparency.

The Board developed and adopted this TFFR Board Program Manual to establish the framework within which the Board intends to set governance and oversight policy.

The purpose of the Manual is to:

1. Provide orientation material and exhibits for new TFFR trustees and executive staff as to the roles, responsibilities, policies, procedures, and activities in the governance and oversight of the TFFR plan.

2. Serve as an ongoing reference manual for current trustees and staff.

3. Describe the roles and responsibilities of the Board of Trustees as a Board, individual Trustees, Committees, Staff, and Service Providers.

4. Describe the relationship between the TFFR Board, the State Investment Board (SIB), and the Retirement and Investment Office (RIO) as it relates to the administration of the TFFR plan.

5. Establish a Board meeting protocol that outlines the manner in which the Board will conduct itself to enable the Board to carry out its responsibilities as effectively and efficiently as possible, and in accordance with state and federal law.

6. Facilitate the organized, efficient, and cohesive functioning of the Board.

7. Facilitate effective communication among the Trustees, staff, plan members, employers, and other external parties.

8. Define responsibility and accountability for hiring and monitoring outside service providers.

9. Document the method by which the Board will conduct a Board self- assessment.

10. Document Board governance and program policies, administrative rules, and state statutes governing the plan.

The TFFR Board Program Manual is an evolving set of documents that reflect the Board's current governance practices. The Manual will be reviewed by the Board on an annual basis. Board trustees, the Deputy Executive Director-Chief Retirement Officer, and/or legal counsel may recommend modifications for Board consideration and approval.

The contents of the TFFR Board Program Manual are intended to be consistent with state and federal laws, rules, and regulations. If there is any conflict between the provisions included in this Manual and state or federal law, the law prevails.

B. TFFR Program Overview

1. History

The ND Teachers' Fund for Retirement (NDTFFR) (formerly the ND Teachers' Insurance and Retirement Fund or NDTIRF) was created by the ND Legislature in 1913. The defined benefit plan provides lifetime retirement, disability and survivor benefits for ND public school educators.

Membership participation, benefits provided, contribution requirements, and plan provisions are described in State Law and the TFFR Member Handbook.

2. Legal Framework

ND Century Code (NDCC) Chapter 15-39.1 contains the legal authority and statutory language governing the TFFR plan, and is supplemented by ND Administrative Code Title 82. TFFR is a qualified (tax exempt) defined benefit public pension plan covered under Section 401(a) of the Internal Revenue Code (IRC).

C. TFFR Mission, Vision, and Values

1. Our Mission

To administer a comprehensive retirement program that provides North Dakota public educators with a foundation for retirement security.

2. Our Vision

To be a trusted leader in the administration of a financially sound retirement program for North Dakota educators by providing exceptional customer service, professional plan management, and organizational effectiveness by adhering to the principles of good governance, transparency, and accountability.

3. Our Core Values

- a. Customer Satisfaction and Commitment to Excellence which are demonstrated by our trustworthiness, accountability, and respectfulness.
- b. Strong Governance and Operational Effectiveness through our strategic leadership, fiduciary responsibility, ethical practices, and transparency.

D. TFFR Board Authority, Composition, Appointment, Terms

1. Board Authority

TFFR is governed by a 7-member TFFR Board of Trustees who are charged with oversight, policy making, and administration of the TFFR retirement program as provided under NDCC 15-39.1-05. The trustees are fiduciaries, and as such have the highest standard of law placed on them.

2. Board Composition

a. The Board is composed of seven trustees consisting of:

1) Two elected state officials:

- State Treasurer (ex officio)
- State Superintendent of Public Instruction (ex officio)

2) Five members appointed by the Governor:

- Two board members who are actively employed as elementary or secondary teachers in full-time positions not classified as school administrators. The appointment is made from a list of three nominees submitted to the Governor by ND United (NDU).
- One board member who is actively employed as a full-time school administrator. The appointment is made from a list of three nominees submitted to the Governor by the ND Council of Educational Leaders (NDCEL).
- Two board members who are retired members of the Fund. The appointment is made from a list of three nominees submitted to the Governor by the ND Retired Teachers Association (NDRTA).

3. Board Trustee Desired Attributes

Board trustees should possess or develop the following desired attributes in order to become an effective board trustee.

a. Unwaveringly ethical

b. Perpetually inquisitive

c. Knowledgeable about the membership

d. Ability to understand complex actuarial, financial, and investment concepts

e. Committed to strong board governance practices

f. Diligent and willing to spend time to learn best pension practices

g. Professional, respectful, and courteous demeanor

h. Proactive and responsive approach to member needs

i. Committed and engaged

j. Active listening and communication skills

k. Critical thinking skills

l. Ability to make fair and timely decisions

m. Open and accountable to stakeholders

4. Board Appointment Process

When a TFFR Board trustee term expires or vacancy occurs, the Chief Retirement Officer will notify the Governor's Office and the applicable stakeholder group (ND United, ND Council of Educational Leaders, or ND Retired Teachers Association) of the vacancy. Board trustee desired attributes and board responsibilities will be provided to the Governor's Office and applicable stakeholder group to assist them in making board nominee or trustee selection.

NDU, NDCEL, or NDRTA will submit a list of three Board nominees to the Governor's Office, as required by state law. Board nominees must complete the "Application for Boards and Commissions" from the Governor's Office in order to be considered for TFFR Board appointment. This application contains information about the nominee's background, education, experience, financial disclosures, and references.

After reviewing the Board nominee applications, the Governor will make the trustee appointment, and will notify the selected nominee and the Chief Retirement Officer. The Governor's Office will send the newly appointed trustee a Certificate of Appointment which provides formal documentation of appointment to the TFFR Board. The Governor's office will also send an Oath of Office and Statement of Intent which must be signed by the trustee and returned to the Governor's Office. These documents confirm the trustee's appointment is official. Trustees can then carry out their official duties as a Board member and can be paid for authorized expenses.

5. Trustee Terms, Resignations and Vacancies

The State Treasurer is an ex-officio member of the Board, and serves on the Board throughout the term of the State Treasurer's elected position. A lawful Deputy of the State Treasurer (pursuant to NDCC 44-03-01) may act with the full authority of the State Treasurer, and may vote when serving as the State Treasurer's official designee on the Board.

The State Superintendent of Public Instruction is an ex-officio member of the Board, and serves on the Board throughout the term of the State Superintendent's elected position. The State Superintendent may designate an individual to attend and participate in Board meetings, however the designee may not vote since the designee does not have the lawful authority to vote on behalf of the State Superintendent.

Each of the five Governor-appointed trustees are appointed for a term of five years. The terms of office are staggered with the five appointed trustee positions beginning July 1 and expiring on June 30 of each successive year. There is no limit to the number of terms a trustee may serve on the Board. Trustees may remain on the Board until they are reappointed or until their successors are appointed.

Appointed active trustees who terminate employment may not continue to serve on the Board as active teacher representatives. Appointed active and retired trustees may resign from the Board by providing written notice to the Governor and the TFFR Board.

Appointed trustee position vacancies which occur before the expiration of a term will be filled by the Governor, and the new appointee will complete the term for which the original trustee was selected.

E. TFFR Board - Duties and Responsibilities

1. Fiduciary Duties

TFFR trustees are fiduciaries, and as such, have the highest standard of law placed upon them. Trustees are expected to discharge their duties with the utmost honesty and integrity and to act solely in the interest of the members, retirees, and beneficiaries for the exclusive purpose of providing benefits and paying reasonable expenses of administering the TFFR program.

Fiduciary duties include the following:

a. Duty of loyalty. The obligation to act for the exclusive benefit of the plan participants and beneficiaries. Regardless of how trustees are selected, trustees must put the interests of all plan participants and beneficiaries above their own interests or those of any third parties.

b. Duty of care. The responsibility to administer the plan efficiently and properly. The duty of care includes consideration and monitoring of the financial sustainability of funding practices and the effective administration of plan benefits in compliance with applicable laws.

c. Duty of prudence. The obligation to act prudently in exercising power or discretion over the interests that are subject of the fiduciary relationship. A trustee should act in a manner consistent with a reasonably prudent person exercising care, skill, and caution.

2. Board Responsibilities

The TFFR Board of Trustees is responsible for oversight, policy making, and administration of the TFFR plan as provided under NDCC 15-39.1-05.2.

Board responsibilities include:

a. Establish and monitor policies for the administration of the TFFR plan.

b. Set legislative priorities and positions, submit legislative proposals, and monitor legislation affecting the plan.

c. Develop and adopt administrative rules and board policies to administer the plan.

d. Establish and monitor TFFR plan funding policy and progress.

e. Establish and monitor TFFR investment policies and asset allocation under NDCC 21-10-02.1.

f. Select and monitor the performance of consultants, advisors, and service providers for the plan.

g. Select and monitor actuarial consultant(s) to provide actuarial and technical consulting services including: annual actuarial valuations and GASB reports, periodic actuarial experience studies, independent actuarial audits, and other special projects and studies; develop and monitor actuarial funding policy, assumptions, methods, and factors; analyze proposed legislative changes; and advise the Board on actuarial, technical, and administrative issues.

h. Select and monitor medical consultant to conduct disability reviews.

i. Select and monitor investment consultant to perform asset allocation and liability studies.

j. Monitor and pay plan benefits, consulting fees, administrative and investment expenditures.

k. Administer the plan so as to maintain the plan's qualified status under Internal Revenue Code requirements.

l. Review and approve applications for disability retirement, Qualified Domestic Relations Orders (QDROs), and other special benefit payments.

m. Review and decide board appeals.

n. Determine appropriate levels of service and monitor outreach programs provided to members and employers.

o. Monitor RIO budget, expenditures, financial reporting system, and financial audit.

p. Monitor RIO information technology systems, projects, and security.

q. Select TFFR representatives to serve on SIB and monitor investment program activities and fund performance.

r. Select TFFR representative to serve on SIB Audit Committee and monitor audit program activities.

s. Inform the State Investment Board (SIB), which is the administrative board of the Retirement and Investment Office (RIO), of the TFFR program needs, policies, and services expected to be provided through RIO.

t. Participate with the RIO Executive Director in the hiring, evaluation, and termination of the TFFR Chief Retirement Officer – RIO Deputy Executive Director.

F. TFFR Board Trustees and Officers – Duties and Responsibilities

1. TFFR Trustee

Trustees must be willing and able to devote the necessary time to fulfill their duties on the Board. This commitment includes the responsibility to:

a. Act as a member of a seven-member Board of Trustees to provide leadership, oversee plan administration, and set the strategic direction for the TFFR program.

b. Prepare for and attend Board and Committee meetings.

c. Be an informed and active member of the Board, fully participating in the decisions and actions of the Board and its Committees by making independent assessments and reasonable judgments.

d. Acquire and maintain the knowledge and skills necessary to perform trustee duties.

e. Follow Board policies and procedures, applicable state and federal laws and rules.

f. Be accurate when communicating with other trustees, members, beneficiaries, interested parties, the public, and RIO staff.

g. Act collegially with the other trustees and staff in the conduct of TFFR business.

h. Bring to the attention of the Board matters of concern that affect the TFFR plan.

i. Seek the advice of the Chief Retirement Officer, legal advisor, and other trustees when necessary to fulfill their fiduciary duties.

j. Comply with the Board’s Code of Conduct and Ethics.

k. Adhere to state law regarding confidentiality of member records and benefits.

l. Adhere to state law regarding Open Meetings and Open Records.

m. Evaluate trustee's individual performance and the Board's performance as a whole.

2. TFFR Board President

The Board President's principal role is to lead the Board in the conduct of Board business by managing the affairs of the Board and ensuring the integrity of the Board's process. The Board President must be willing and able to devote the time necessary to fulfill these special responsibilities. This commitment includes the responsibility to:

a. Convene and preside over all Board meetings in a collegial, fair, and efficient manner following Board policies, procedures, and applicable state laws and rules.

b. Review and approve the agenda for regular and special Board meetings.

c. Ensure proper and timely flow of adequate information to the Board.

d. Solicit input from trustees regarding matters before the Board.

e. Ensure adequate time is provided for effective study and discussion of business.

f. Make Committee assignments.

g. Execute documents and other legal instruments on behalf of TFFR as required by state law, authorized by the Board, or determined in conjunction with the Chief Retirement Officer.

h. Represent the Board to outside parties and organizations.

i. Lead the Board's self-assessment and self-development processes.

j. Perform all other duties identified by the Board.

3. TFFR Board Vice President

The Vice President will perform the duties of the President in the absence of the President.

4. TFFR Representatives to SIB

The TFFR Board selects three trustees to represent TFFR on the SIB. TFFR representatives to the SIB must include one active teacher, one active administrator, and one retired member.

The TFFR representatives to the SIB have the same authority and responsibilities as do other SIB trustees as provided in NDCC 21-10 and outlined in the SIB Governance Manual.

5. Alternate TFFR Representative to SIB

The TFFR Board selects one alternate TFFR representative to serve on the SIB.

The Alternate TFFR representative to the SIB will perform the duties of the regular TFFR representative on the SIB in the absence of that trustee.

6. TFFR Representative to SIB Audit Committee

The TFFR Board selects one TFFR representative on the SIB to serve on the SIB Audit Committee, subject to official appointment by SIB Chair.

The TFFR representative on the SIB Audit Committee has the same authority and responsibilities as do other trustees on the SIB Audit Committee which are outlined in the SIB Audit Committee Charter.

G. State Investment Board

The ND State Investment Board (SIB) is responsible for oversight, policy making, and administration of the SIB investment program as provided under NDCC 21-10. As such, TFFR assets, as well as other state pension, insurance, and other state funds, are invested by the SIB.

The SIB is composed of twelve trustees consisting of:

a. Lt. Governor of the State of ND
b. State Treasurer
c. State Insurance Commissioner
d. Director of Workforce Safety & Insurance
e. Commissioner of University and School Lands
f. Three TFFR trustees
g. Three PERS trustees
h. One Legacy & Budget Stabilization Fund Advisory Board trustee (nonvoting)

Investment of TFFR assets is based on the asset allocation and investment policy statement approved by the TFFR Board and accepted by the SIB. Funds are invested following the "prudent investor rule" and must be invested exclusively for the benefit of TFFR members.

The SIB is also the governing body of the ND Retirement and Investment Office (RIO).

H. Retirement and Investment Office

The ND Retirement and Investment Office (RIO) coordinates the activities of the TFFR retirement program and SIB investment program as provided under NDCC 54-52.5. The governing body of RIO is the SIB, although the TFFR Board and SIB each maintain their legal identities and authority under state law.

RIO is responsible for developing the agency budget, providing the staff, and allocating necessary resources to administer both the TFFR and SIB programs, subject to budget approval by the Legislature. The TFFR Board and SIB provide input to RIO Executive Management to ensure retirement and investment program needs, policies, and services are considered.

RIO Executive Director - Chief Investment Officer is the administrator of RIO and is responsible for the SIB investment program. RIO Deputy Executive Director – Chief Retirement Officer assists in the administration of RIO and is responsible for the TFFR retirement program.

RIO is an administrative agency of the State of North Dakota and operates from an office located at 3442 East Century Avenue in Bismarck, North Dakota.

I. Delegation to Staff and Organizational Structure

The TFFR Board delegates administration of the TFFR program to the RIO Deputy Executive Director - TFFR Chief Retirement Officer, subject to approval by the RIO Executive Director.

The RIO Deputy Executive Director – TFFR Chief Retirement Officer reports directly to the RIO Executive Director – Chief Investment Officer and functionally to the TFFR Board. *See RIO Organizational Chart (Exhibit 1).*

J. Staff - Duties and Responsibilities

1. Deputy Executive Director – Chief Retirement Officer Update in Coordination with SIB

The Deputy Executive Director – Chief Retirement Officer is hired by the RIO Executive Director – Chief Investment Officer, serves in an unclassified position, and is paid such salary as the Executive Director determines. The Board delegates responsibility for administering the TFFR program to the Deputy Executive Director – Chief Retirement Officer, subject to approval by the Executive Director. The Board will participate with the Executive Director in the hiring, evaluation, and termination of the Deputy Executive Director-Chief Retirement Officer.

Duties and responsibilities include:

a. Assist the Executive Director in planning, supervising, and directing overall RIO programs in accordance with the SIB governance policies and state laws and rules, and represent the Executive Director in his/her absence.

b. Administer the TFFR retirement program in accordance with governing statutes, rules, and TFFR Board policies and perform related work as assigned by the TFFR Board.

c. Develop annual and long-range plans for the retirement program.

d. Interpret state and federal law which governs the retirement program.

e. Develop administrative rules, policies, and procedures necessary to administer the program.

f. Represent the TFFR Board on retirement program issues.

g. Direct TFFR legislative agenda and process.

h. Maintain effective relationships with TFFR members, beneficiaries, employers, state officials, legislators and legislative committees, member and employer stakeholder groups, the media, and the public at large.

i. Work with actuarial consultant, medical consultant, legal counsel, auditor, investment consultant, and other service providers in administering the plan.
j. Assist in the formulation of RIO's budget, including staffing needs, program costs, operating costs, information technology requirements, and resources to assure that retirement program obligations are met.

k. Develop Board and Committee meeting agendas and materials, attend all Board and Committee meetings, responsible for meeting minutes, required notices, procedures, and applicable rules and regulations of the fund.

l. Provide the Board with relevant, appropriate, and timely information to enable it to properly carry out its oversight responsibilities.

m. Advise the Board on significant issues, problems or developments pertaining to the plan, and provide recommended courses of action as appropriate. regarding Board policy or action.

n. Maintain the data, records, and files of TFFR members, beneficiaries, and employers including membership data, salary, service, contributions, and benefit payments.

o. Ensure the accurate and timely collection of member and employer contributions, maintenance of member accounts, processing of account claims, and payment of pension, disability, death and refund benefits as allowed under state law.

p. In the absence of the Deputy Executive Director-Chief Retirement Officer, the Retirement Program Manager will be responsible for the administration of the TFFR program.

2. Executive Director - Chief Investment Officer Update in Coordination with SIB

The Executive Director – Chief Investment officer (ED-CIO) is hired by the SIB, serves in an unclassified position at the SIB's pleasure, and is paid such salary as the SIB determines.

Duties and Responsibilities include:

a. Oversee planning, supervising, and directing overall RIO programs in accordance with SIB governance policies and state laws and rules.

b. Administer the investment program of RIO and perform related work as assigned by the SIB.

c. Direct the preparation and execution of the RIO budget and legislative agenda and evaluates and monitors financial and operational programs.

d. Represent RIO, promote RIO programs, and has the authority and responsibility to carry out the day-to-day administrative duties for RIO.

e. Attend all meetings of the SIB and TFFR Board.

f. Hire staff as necessary to carry out the responsibilities of RIO.

g. The TFFR Board will participate with the Executive Director in the hiring, evaluation, and termination of the Deputy Executive Director-Chief Retirement Officer.

K. Service Providers – Duties and Responsibilities

1. Actuary

The TFFR Board is responsible for selecting and monitoring the actuarial consultant for the plan.

Duties and responsibilities include:

a. Provide actuarial and technical consulting services for the plan.
b. Prepare annual actuarial valuation and GASB reports, periodic actuarial experience studies, and other special projects and reports.
c. Develop and monitor actuarial funding policy, assumptions, methods, factors, etc.
d. Analyze proposed legislative changes.
e. Advise the Board on actuarial, technical, and administrative issues.

The Board utilizes a request for proposal (RFP) process to periodically select and approve the plan's consulting actuary. It is the Board's intent to issue RFP's every 6 to 10 years, however the timing may be adjusted at the Board's discretion.

The Board monitors actuarial costs and services, and may extend the actuarial consulting service contract for 2 year terms, as approved by the TFFR Board.

The Board also hires an independent actuary to periodically perform an actuarial audit of the plan's consulting actuary. The Board utilizes an RFP process to select and approve the plan's actuarial auditor.

2. Medical Consultant

The TFFR Board is responsible for selecting and monitoring a medical consultant for the plan to conduct disability reviews, disability re-certifications, and perform other medical reviews as necessary.

The Board monitors medical consulting costs and services and may extend the medical consulting contract for 2-year terms, as approved by the TFFR Board. The Board may delegate this responsibility to the Chief Retirement Officer.

3. Legal Counsel

The ND Attorney General's Office (AGO) provides legal services to the TFFR Board and staff. The AGO assigns an assistant attorney general to advise the Board on legal issues related to plan administration.

Duties and Responsibilities include:

a. Represent the Board and staff in all legal matters.
b. Draft proposed legislation, administrative rules, and other legal documents.
c. Review and advise on retirement program issues.
d. Research and interpret state statutes and federal regulations.
e. Review Board policies, procedural issues, contracts, and other legal documents.
f. Respond to legal questions from staff, members, employers, and other individuals.
g. Advise and educate the Board and staff on legal matters that relate to the administration of the retirement system including Board appeals, fiduciary duties, ethics, open records and meetings, potential litigation, and other legal issues.
h. Work with staff from the AGO in representing the retirement plan in administrative hearings, litigation, and other matters involving the AGO.
i. Work with outside legal counsel on application of Internal Revenue Code technical requirements and plan qualification issues.

4. Auditor (External financial)

The ND State Auditor’s Office selects the external financial auditor for RIO, with input from the SIB Audit Committee.

Duties and Responsibilities include:

a. Perform annual audit of RIO’s financial statements.
b. Perform annual audit of TFFR’s GASB 68 schedules.
c. Provide report on internal controls and compliance.
d. Provide required written communications.

Results of the annual financial audit are reported directly to SIB Audit Committee and communicated to the TFFR Board in conjunction with annual audit services report.

5. Investment Consultant, Managers, and Advisors

The SIB is responsible for investment of TFFR trust fund assets, and selects the investment consultant, managers, custodian, and advisors for the SIB program.

The governing body of each fund invested by the SIB is required to use RIO staff and consultants in developing asset allocation and investment policies. The TFFR Board has contracted with the SIB investment consultant to perform asset allocation and liability modeling studies in the past.

L. Election of TFFR Board Officers and SIB trustee positions

1. Board Officers

The TFFR Board will elect the following Board officers each year. Any trustee may serve as a TFFR Board officer.

- Board President
- Board Vice President

The TFFR Board will select the following representatives to the SIB each year. Any trustee may serve as a TFFR representative to the SIB, except the State Treasurer is required to be an ex officio member of both the TFFR Board and SIB so may not be selected as a TFFR representative to the SIB.

- Three TFFR representatives to SIB (representatives must include one active teacher, one active administrator, and one retired member)
- One TFFR alternate representative to SIB
- One TFFR representative to SIB Audit Committee (from SIB)

2. Election Procedure

The TFFR Board will elect the Board officers and TFFR representatives to the SIB at the first regular Board meeting immediately following July 1 of each year. There must be a quorum of four board members in attendance to elect officers.

Four affirmative votes are required to elect Board officers and TFFR representatives to the SIB.

3. Term

Board officers and TFFR representatives to SIB will hold office for one year, or until their successors are elected.

There is no limit to the number of years a trustee may hold office.

4. Vacancies

A Board officer or TFFR representative to the SIB may resign from their position by providing written notice to the Board and Chief Retirement Officer.

Board officer or TFFR representative to the SIB vacancies that occur before the expiration of a term will be filled by the Board at the next regular meeting of the Board following the vacancy.

M. Board and Committee Meetings

1. Open Meetings

All Board and Committee meetings are open to the public in accordance with ND Open Meetings laws pursuant to NDCC 44-04-17.1.

Meetings include any gathering of a quorum of the members of the Board (four members constitute a quorum for TFFR Board) regarding public business, and includes committees, subcommittees, informal gatherings or work sessions, and discussions where a quorum of members are participating by phone or any other electronic communication (either at the same time or in a series of individual contacts).

Emails or text messages between Board members regarding public business may constitute a meeting and violate open meeting laws even if done on personal devices.

Training seminars and purely social gatherings attended by a quorum of the Board or Committee are not meetings, however, as soon as the members discuss any public business, it becomes a meeting.

2. Rules of Order

All Board and Committee meeting will be conducted in accordance with Robert's Rules of Order Newly Revised, except as superseded by state law and Board governance policies.

3. Meeting Schedule

The Board will hold meetings as often as necessary for the transaction of business but will conduct a minimum of six Board meetings each year.

The Board will approve an annual Board meeting schedule identifying the time, date, and location of regular Board meetings. Board meetings will generally be scheduled for the Thursday afternoon preceding SIB meetings beginning in July of each year, unless a different day is determined. (Note: SIB meetings are generally scheduled for the 4th Friday of each month.) The Board or Board President may modify this schedule, if needed. This schedule must be filed annually with the Secretary of State's office.

The Board President, or any two members of the Board, may call for special or emergency Board meetings.

At the July Board meeting each year, the Board will elect officers, review governance and program policies, and develop the annual board agenda and education plan.

The Board may hold an annual offsite Board retreat to focus on board development, strategic planning, legislative planning, developments in public pension administration, and other topics as determined by the Board. A Board Retreat must also be noticed as a meeting of the Board.

4. Meeting Notice

Public notice of all Board and Committee meetings is made in accordance with state law pursuant to NDCC 44-04-20.

Meeting notices are posted on the Secretary of State website, RIO public website, RIO office, and the meeting location.

5. Meeting Agendas

An annual schedule of agenda topics, reports, and education items for each regular board meeting will be developed by the Chief Retirement Officer and approved by the Board. The annual schedule will also include review of the Board Governance Manual over several meetings.

Board meeting agendas will be prepared by the Chief Retirement Officer and approved by the Board President using the annual schedule as a basis for topics to be included on each regular meeting agenda. Additional topics may be added by the Chief Retirement Officer, Board President, and Board trustees subject to approval by the Board President.

The meeting agenda should contain enough detail so trustees, members, interested parties, and the general public can understand the nature of each agenda item.

Any individual or organization who desires to appear on the agenda of a Board or Committee meeting must notify the Chief Retirement Officer in writing at least ten working days prior to the meeting date. The request must include the reason or topic to be discussed with the Board. Subject to approval by the Board President, the individual will be placed on a Board meeting agenda.

Regular Board meeting agendas may be added to or altered at the time of the meeting. For special or emergency meetings, only the specific topics included in the meeting notice may be discussed.

The meeting agenda will identify if the item requires Board action, information only, consent agenda, or executive session. The agenda will also note the estimated amount of time expected for each topic.

a. **Action** items on the agenda contain information that require Board discussion and vote (annual reports, policy changes, benefit determinations, legislative positions, etc.)

b. **Information** only items contain information that it is important for the Board to know, but do not require Board action or a Board vote (project updates, status reports, education, etc.)

c. **Consent agenda** items will primarily consist of approval of disability applications, QDROs, employer reviews, or other routine administrative matters that require Board action as recommended by staff, but which typically do not require Board discussion. Trustees may request any item to be removed from the Consent agenda to allow for Board discussion and action.

d. If an **Executive session** is required or anticipated, the Executive session must be listed as an agenda item (i.e., confidential member information, attorney consultation, etc.)

6. Meeting Materials

The Chief Retirement Officer will coordinate the preparation of Board meeting materials and develop an Executive Summary.

Meeting materials will generally be sent to trustees 5-7 days before the meeting, unless otherwise indicated.

Materials will be posted on the public RIO website, except for Executive Session or confidential items which will be sent via secure email to the trustees only.

7. Meeting Attendance and Quorum

Attendance at Board meetings is an essential element of a trustee's fiduciary responsibility. Therefore, Board members are expected to attend all Board and applicable Committee meetings.

Board members may attend meetings in person, by telephone or video conference.

A quorum of four members must be present for the Board to conduct business.

Board members should come to meetings having read the materials prepared and circulated by staff and/or consultants.

Board members should be inquisitive, and should appropriately question staff, advisors, and fellow trustees as circumstances require.

Board members should conduct themselves with integrity and dignity, maintaining the highest ethical conduct at all times.

Board members should make every effort to engage in collegial deliberations and to maintain an atmosphere in which trustees can speak freely and explore ideas before becoming committed to positions.

8. Voting

Voting on matters before the Board will be by roll call vote, except for procedural matters.

Board members have a duty to vote unless there is an applicable statute that would require or permit abstention.

Each Board member is entitled to one vote. Proxy voting is not allowed.

Four members constitutes a quorum.

Four votes are required for resolution or action by the Board.

Board minutes will show the recorded vote of each Board member.

9. Public Access and Comment

All Board and Committee meetings are open to the public and all persons who wish to attend may do so in accordance with ND Open Meeting laws, NDCC 44-04-17.1.

Public participation or comments during Board meetings may be allowed and limited to reasonable time limits at the discretion of the Board president as follows:

a. By written request to appear on a Board meeting agenda.
b. By written request to speak on a specific Board meeting agenda topic.
c. By written request to speak on any TFFR related topic which is not on a regular Board meeting agenda.
d. By submitting a letter or written document for distribution to the Board.

See TFFR Board Public Participation Guidelines (Exhibit 2).

10. Executive Sessions

The Board or Committee may conduct business in Executive Session only as permitted by state law, NDCC 44-04-19.2. Executive sessions shall be presided over by the Board President or Committee Chair.

Only the portions of a public meeting that are specifically confidential or exempt from the Open Meetings law may be closed to the public and held in Executive Session. The remainder of the meeting must be open to the public.

Reasons a meeting may not be open to the public includes Board discussion of:

a. Confidential member records or information under NDCC 15-39.1-30 (examples include member benefit appeals, benefit determinations, disability applications, QDROs, etc.)

b. Attorney's advice regarding a "pending or reasonably predictable" lawsuit involving TFFR.

c. Attorney's assessment of the risks, strengths or weaknesses of an action of the TFFR Board or negotiating strategy if holding the discussion in an open meeting would have an adverse effect on the bargaining or litigating position of the Board.

11. Closed Meeting Procedures

State law specifies the following general procedure for holding an executive session.

a. Convene meeting in an open session preceded by public notice.
b. Announce during the open portion of the meeting the topics to be considered during the Executive Session and the legal authority for holding an Executive Session on those topics.

c. Pass a motion to hold an Executive session, unless motion is unnecessary because a confidential meeting is required to discuss confidential information.
d. Record the Executive Session electronically.
e. Limit the topics considered during the Executive Session to the announced, authorized topics.
f. Take final action on the topics considered in the Executive Session during the open portion of a meeting.
g. All substantive votes must be recorded by roll call.

12. Meeting Minutes and Records

Minutes will be taken at all Board and Committee meetings and presented for approval at the next regular meeting. The Board President or Committee Chair will sign the minutes after Board approval.

At a minimum, minutes must include:

a. The names of the members attending the meeting.
b. The date and time the meeting was called to order and adjourned.
c. A list of topics discussed regarding public business.
d. A description of each motion made at the meeting and whether the motion was seconded.
e. The results of every vote taken at the meeting; and
f. The vote of each member on every recorded roll call vote.

Approved meeting minutes will be made available on the RIO-TFFR website, or upon request. Meeting minutes and records of the Board and Committee activities and actions will be maintained as required by state law.

13. Meeting Payment and Travel Expense Reimbursement

Board members, excluding ex-officio members, will receive compensation and travel expenses for attending Board and Committee meetings as provided in state law, NDCC 15-39.1-08.

Board members will be paid $148 for each Board or Committee meeting attended. Board members will be paid the full amount for each meeting attended that lasts for two or more hours. Meetings lasting less than two hours will be paid at one half the amount. Mileage and travel expense reimbursement will be paid as provided in state law.

Board members may not lose regular salary, vacation pay, vacation or any personal leave, or be denied attendance by the state or political subdivision while serving on official business of TFFR.

To receive meeting payment, Board members must complete a travel expense form and submit it to RIO. *See RIO Board Meeting In-State Travel Expense Voucher (Exhibit 3).*

N. Committees

1. Standing Committees

The TFFR Board may establish permanent standing committees. ~~The Board currently has no standing committees.~~ The TFFR Board has created a permanent standing Governance and Policy Review Committee.

a. POLICY OF THE TFFR BOARD – Governance & Policy Review Committee

The Governance & Policy Review Committee is authorized to:

- Review and recommend policies for the governance manual.
- Ensure the governance manual reflects best practices and governance.
- As directed by the board, review specific governance concerns, and make recommendations for improvement.
- Request RIO staff for specific topic training or education

2. Special Committees

The Board may establish special ad hoc committees as needed to carry out duties specified by the Board.

The Board President will appoint the Committee Chair and Committee members for special committees.

Committee Chairs are responsible for organizing the work of the Committee. In fulfilling this function, Committee Chairs:

a. Schedule Committee meetings as often as necessary.
b. Consult with the Chief Retirement Officer in setting the meeting agenda in accordance with the Committee's delegated responsibilities.
c. Conduct Committee meetings in a collegial, fair, and efficient manner following Board policies, procedures, and applicable state law such as the open meetings law.
d. Ensure the Committee operates to assist the Board consistent with its delegation.
e. Provide Committee updates and reports to the Board.

When the Committee's duties are completed, the Committee automatically ceases to exist.

3. Audit Committee

The SIB Audit Committee also functions as the Audit Committee for the TFFR Board since the SIB is the governing body of the RIO agency and RIO administers both the TFFR retirement program and SIB investment program.

The TFFR Board selects one TFFR representative on the SIB to serve on the SIB Audit Committee, subject to official appointment by SIB Chair. This representative will act as the TFFR Board's liaison to the SIB Audit Committee.

The TFFR Board's representative on the SIB Audit Committee and/or the Audit Supervisor, will provide Audit Committee updates and monitoring reports to the Board.

O. Board Appeals

Any member, beneficiary, employer, or affected individual may appeal a determination made by the Chief Retirement Officer regarding TFFR eligibility, benefits, or other plan provisions with which the individual does not agree.

The affected individual must file a written request for Board review within thirty days after notice of the determination of the Chief Retirement Officer has been mailed to the affected individual. If a request for Board review is not filed within the thirty-day period, the decision of the Chief Retirement Officer is final. The request for Board review must include the decision being appealed, the reason(s) the individual believes the decision should be reversed or modified, and any relevant documentation.

To review the matter, an appeal hearing will be scheduled as part of a regularly scheduled Board meeting. A summary of the relevant facts and documentation will be presented. The affected individual and/or designee may attend and speak at the hearing. After review of the facts, documentation, and testimony, the Board will make its decision. The Board's decision will be communicated in writing to the affected individual within 30 days of the decision.

Any individual aggrieved by a decision of the Board may initiate a formal administrative action against the Board in accordance with ND Administrative Code Chapter 82-10 and ND Century Code Chap. 28-32.

P. Board Communications

The TFFR Board President and Chief Retirement Officer are authorized to represent the Board on retirement program issues and in announcing Board positions and decisions, unless otherwise determined by the Board.

Board members may respond to general inquiries about the TFFR retirement program, however specific questions from members, beneficiaries, employers, and the public should be referred to the Chief Retirement Officer or the Retirement and Investment Office staff to provide more detailed information about the retirement program.

Q. Trustee Orientation and Education Program

Trustees are responsible for making policy decisions affecting all major aspects of TFFR plan administration. Therefore, trustees should acquire and maintain an appropriate level of knowledge that provides and improves core competencies necessary to govern a large, complex pension fund.

1. Board Member Core Competencies

Board members should develop and maintain their knowledge and understanding of the issues involved in the prudent management of the retirement plan. Specific areas include:

a. Public pension plan governance
b. Asset allocation and investment management
c. Actuarial principles and funding policies
d. Financial reporting, controls and audits
e. Benefits administration
f. Open meeting and open records laws
g. Fiduciary responsibilities
h. Ethics and conflicts of interest

2. Board Member Education

To permit Board members to develop core competencies, discharge their fiduciary duties, and ensure Board members have a full understanding of the issues facing the TFFR plan, the Board encourages trustee education including:

a. New trustee orientation
b. Mentoring program
c. Educational conferences, workshops, and other training programs
d. In-house education sessions
e. Fiduciary education and ethics training
f. Open meeting and open records training
g. Webinars, Reports, and Studies

Board members should identify areas in which they might benefit from additional education, and work with the Chief Retirement Officer to find or develop educational opportunities to best address those needs.

Board members must annually report trustee education received each year. *See TFFR Board Education Report Form (Exhibit 4).*

3. New Trustee Orientation

Each new Board member should attend a new trustee orientation session(s) as soon as possible after appointed to the Board or elected to office. The orientation sessions will be developed by the Chief Retirement Officer, and will include, at minimum, review of the following topics and materials:

a. Introduction to RIO staff
b. Tour of RIO office
c. Board Governance Manual
d. Board duties and responsibilities
e. History and overview of the plan
f. Overview of TFFR-SIB-RIO organizational structure
g. Laws, rules, and board policies governing the plan
h. Benefit structure, administration, outreach services
i. Fiduciary responsibilities, conflict of interests, and ethics

j. Open meetings and open records
k. Board meeting schedule and protocol
l. Board meeting minutes and materials
m. Actuarial valuation report, assumptions, methods, and funding policy
n. Actuarial experience report
o. Actuarial audit report
p. Annual financial report
q. Investment program, investment policy statement, asset allocation, and performance
r. RIO website – TFFR and SIB sections
s. Legislative issues
t. List of educational conferences and training sessions
u. Other relevant information or materials deemed appropriate

4. Mentoring Program

The Board President will assign each new trustee an experienced Board mentor to assist the new trustee in becoming familiar with Board responsibilities. The Board mentor should have at least two years of experience on the Board.

The Board mentor should contact the new Board member periodically outside of regularly scheduled Board meetings for consultation or discussion related to Board member duties and responsibilities. The new Board member should contact the Board mentor as often as necessary.

Appointment of a Board mentor does not constitute appointment of a Committee and does not implicate open meeting notice requirements.

5. Educational Conferences, Workshops, and other Training Programs

The Chief Retirement Officer will maintain a list of educational conferences, workshops, and other training programs appropriate for Board members to attend. The list will be provided at least annually to Board members. Board members may attend such conferences or others deemed to be appropriate by the Chief Retirement Officer.
Subject to budget availability, Board members may attend at least one out of state educational conference each year. New trustees, or trustees with investment or other specialized Board responsibilities, may attend additional educational training sessions to help develop core competencies and become proficient in performing their duties.

The Chief Retirement Officer will review conference agendas and materials to ensure they are geared toward trustee education, and subject to budget availability, will approve Board travel requests. Board travel outside of the continental United States must be approved by the Board President and Chief Retirement Officer.

Any Board member who attends a conference, workshop, or other training program will present an oral report to the Board.

The Chief Retirement Officer will inform the Board of educational conferences, workshops, or other training programs attended by trustees on an annual basis.

6. In-House Education Sessions

Based on the education needs identified by Board members, the Chief Retirement Officer will arrange for staff or outside service providers to conduct educational sessions at regularly scheduled Board meetings. Topics may include pension board governance, actuarial and funding issues, investments, retirement operations and benefits, workforce demographics and shortages, and other topics determined by the Board.

7. Fiduciary Education and Ethics Training

At least every two years, a fiduciary education and ethics training session will be conducted at a regularly scheduled Board meeting. The session will review and update trustees regarding fiduciary issues and ethical conduct affecting their service on the Board.

8. Open Meetings and Open Records Training

At least every two years, an open meetings and open records training session will be conducted at a regularly scheduled Board meeting. The session will review and update trustees regarding open meetings and open records requirements affecting their service on the Board.

9. Webinars, Reports, and Studies

Board members are encouraged to subscribe to mailing lists and review websites for information about public pension plan conferences, webinars, reports, and studies from pension and investment organizations. Examples include:

a. National Council on Teacher Retirement (NCTR)
b. National Institute on Retirement Security (NIRS)
c. National Education Association-Retired (NEA-R)
d. National Retired Teachers Association (NRTA-AARP)
e. International Foundation for Employee Benefit Plans (IFEBP)
f. Center for State and Local Government Excellence (SLGE)
g. Center for Retirement Research at Boston College (CRR)
h. Callan Investment Institute (Callan)
i. Council of Institutional Investors (CII)

The Chief Retirement Officer will also provide links to recent published reports and studies with Board meeting materials.

10. Reimbursement of Education Expenses

Trustees must request approval for travel to educational conferences or other educational programs. Trustees should notify the Chief Retirement Officer of their interest in attending an educational conference or other program. RIO will complete the travel authorization form which must be signed by the trustee and approved by the Chief Retirement Officer. *See ND Authorization for Out of State Travel (Exhibit 5).*

RIO will make all travel arrangements and pay conference registration fees, unless otherwise agreed to by the Chief Retirement Officer and trustee.

Payment of travel-related expenses for trustee education will be in accordance with state of ND travel policies. Trustees will be reimbursed for travel related expenses including lodging, meals, transportation, etc. In order to receive reimbursement, a trustee must complete an expense form and attach receipts as required. *See RIO Conference Expense Voucher – Board Members (Exhibit 6).*

R. Code of Conduct, Ethics, and Conflicts of Interest

Following is the Code of Conduct, Ethics, and Conflicts of Interest policy for the TFFR Board of Trustees:

1. Board members owe a duty to conduct themselves so as to inspire the confidence, respect, and trust of the TFFR members and to strive to avoid not only professional impropriety, but also the appearance of impropriety.

2. Board members shall perform the duties of their offices impartially and diligently. Board members are expected to fulfill their responsibilities in accord with the intent of all applicable laws and to refrain from any form of dishonest or unethical conduct. Board members shall be unswayed by partisan interest, public sentiment, or fear of criticism.

3. Conflicts of interest and the appearance of impropriety shall be avoided by Board members. Board members shall not allow their family, social, professional, or other relationships to influence their judgment in discharging their responsibilities. Board members shall refrain from financial and business dealings that tend to reflect adversely on their impartiality or interfere with the proper performance of their duties. If a conflict of interest unavoidably arises, the Board member shall immediately disclose the conflict to the Board. The Board must vote on whether the member can vote. Conflicts of interest to be avoided include but are not limited to: receiving consideration for advice given to a person concerning any matter over which the Board member has any direct or indirect control, acting as an agent or attorney for a person in a transaction involving the Board, and participation in any transaction for which the Board member has acquired information unavailable to the general public, through participation on the Board. "Conflict of interest" means a situation in which a Board member has a direct and substantial personal or financial interest in a matter which also involves the member's fiduciary responsibility.

4. The Board shall not unnecessarily retain consultants. The hiring of consultants shall be based on merit, avoiding nepotism and preference based upon considerations other than merit that may occur for any reason, including prior working relationships. The compensation of such consultants shall not exceed the fair value of services rendered.

5. Board members shall abide by NDCC 21-10-09, which reads: "No member, officer, agent, or employee of the state investment board shall profit in any manner from transactions on behalf of the funds. Any person violating any of the provisions of this section shall be guilty of a class A misdemeanor."

6. Board members shall perform their respective duties in a manner that satisfies their fiduciary responsibilities.

7. Political contributions are regulated under NDCC 16.1-08-03 and are not restricted under this policy.

8. All activities and transactions performed on behalf of public pension funds must be for the exclusive purpose of providing benefits to plan participants and defraying reasonable expenses of administering the plan.

9. Prohibited transactions. Prohibited transactions are those involving self-dealing. Self-dealing refers to the fiduciary's use of plan assets or material, non-public information for personal gain; engaging in transactions on behalf of parties whose interests are averse to the plan; or receiving personal consideration in connection with any planned transaction.

10. Violation of these rules shall result in an official reprimand from the TFFR Board. No reprimand shall be issued until the board member has had the opportunity to be heard by the Board.

11. Board members are required to affirm their understanding of this policy annually, in writing, and must disclose any conflicts of interest that may arise. *See TFFR Code of Conduct Annual Affirmation (Exhibit 7)*

12. RIO Deputy Executive Director- Chief Retirement Officer is required to affirm his/her understanding of RIO Administrative Policy – Code of Conduct for RIO Employees – annually, in writing, and must disclose any conflicts of interest that may arise.

S. Strategic Planning

The Board and Chief Retirement Officer will work collaboratively to develop a long-term strategic plan which may:

1. Identify and prioritize TFFR program issues and initiatives.
2. Assess the strengths, weaknesses, opportunities, and threats for TFFR.
3. Focus resources on high value activities.
4. Develop strategies to address priorities.
5. Monitor the progress and implementation of the strategic plan.
6. Work with RIO to ensure adequate resources are in place to support the successful execution of the plan.

T. Board Policy Approval Process

Board governance and program policies may be adopted or amended from time to time based on the following process.

New policies or policy amendments may be proposed by the Chief Retirement Officer or a Board member. All new policies or amendments must be submitted to the Board's legal counsel at the Attorney General's office for review prior to Board approval.

Upon request of the Chief Retirement Officer or a Board member, a new policy or amendment shall be placed on the Board's agenda for action as follows:

1. Introduction and first reading. A brief explanation or summary of the new policy or amendment shall be presented to the Board. Upon approval of introduction and first reading, the policy shall be placed on the agenda of the next scheduled meeting of the Board for second reading and adoption. When appropriate, the policy shall be distributed to interested parties.

2. Second reading and adoption. Interested parties and the public shall be allowed an opportunity to comment on the policy or amendment before final action by the Board. The policy shall take effect immediately following second reading and adoption by the Board, unless a different effective date is stated.

3. Amendments. Amendments may be proposed at any time before final adoption of the policy. Upon determination by the Board that adoption of an amendment constitutes a substantive change that significantly changes the meaning or effect of the policy, the Board shall continue consideration of second reading and adoption to the next meeting to permit further review and comment.

4. Emergency measures. Upon determination that an emergency or other circumstances calling for expeditious action exists; the Board may waive the requirement of a second reading and immediately approve the new policy or amendment following introduction and first reading.

Board policies will be reviewed at least annually, or more often as needed.

U. Board Self-Assessment

On an annual basis, the Board will engage in a self-assessment process to evaluate the trustee's individual performance and the Board's overall performance. The Board President is responsible for overseeing implementation of this assessment, with assistance of the Chief Retirement Officer and Supervisor of Audit Services.

Individual Trustee and Overall Board Assessments may contain topics including:

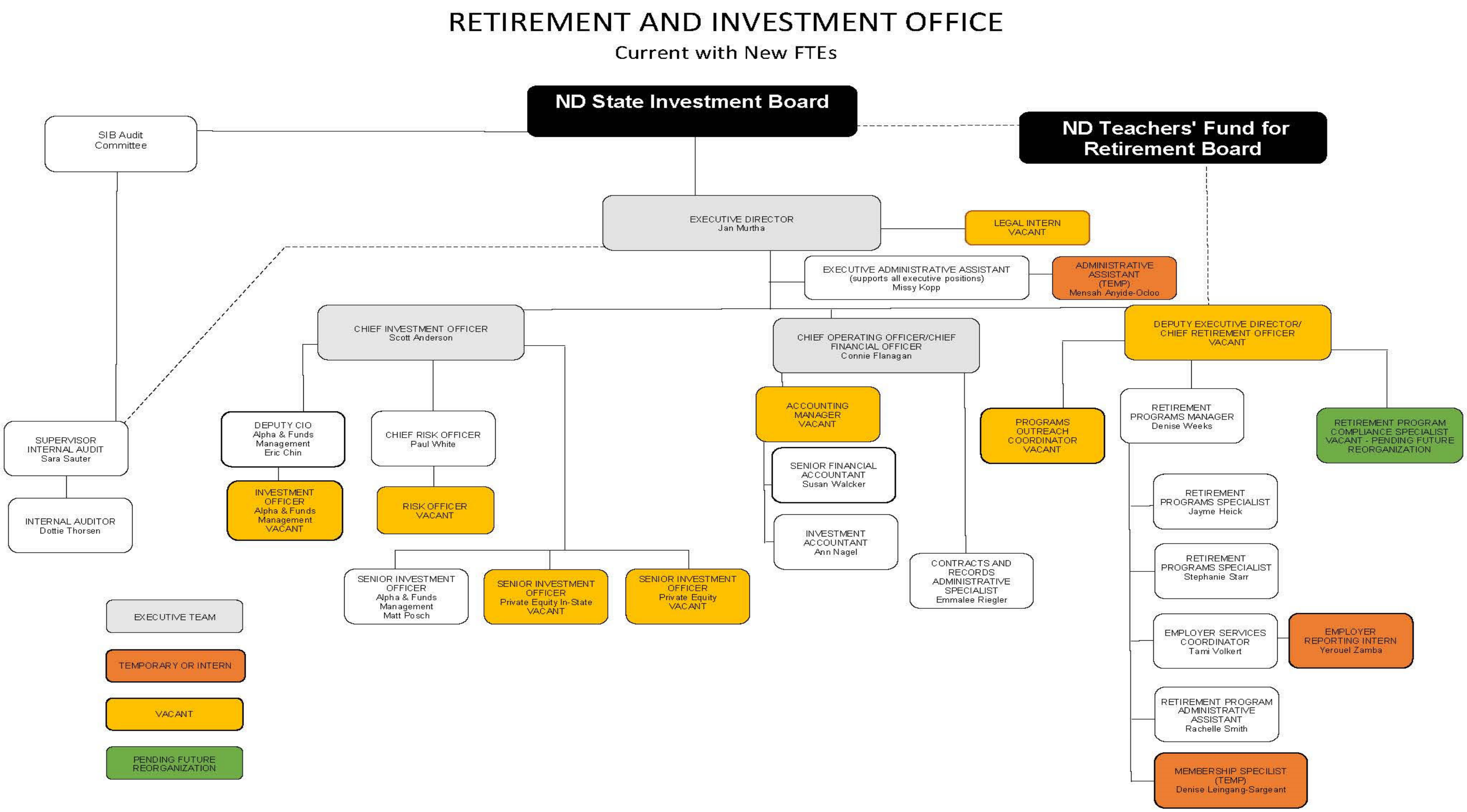
1. Board and staff roles
2. Board and Committee structure
3. Board meetings
4. Policy making and reviews
5. Financial management practices
6. Pension plan administration practices

See TFFR Board Self- Assessment (Exhibit 8 Process and Survey To Be Developed).

Board Governance Policies Approved ________________________________
Date

Board Governance Section Exhibits

1. RIO Organizational Chart



2. TFFR Board Public Participation Guidelines

NORTH Dakota Be Legendary.

Teachers' Fund For Retirement
RETIREMENT & INVESTMENT

TFFR Board Meeting

Public Participation Guidelines

All TFFR Board and Committee meetings are open to the public and all persons who wish to attend may do so in accordance with ND Open Meetings laws, NDCC 44-04-17.1.

The Board is responsible for oversight, policy making, and administration of the TFFR plan. The Board may seek public input to assist in making decisions, but time spent answering routine questions or criticisms must not be taken from Board business. Generally, if an individual has a question or concern about the operation of the TFFR program or a specific member or employer issue, he/she is encouraged to contact the Chief Retirement Officer to get the needed response directly.

Although there is no legal requirement that the public be given an opportunity to speak at TFFR Board meetings, it is the Board's policy that public participation or comments during Board meetings may be allowed and limited to reasonable time limits at the discretion of the Board President. (See TFFR Board and Committee Meetings – Public Access and Comment, Policy M-9.)

Subject to approval of the Board President, public participation or comments may be provided to the Board as follows:

1) **By written request to appear on a Board meeting agenda.** The request must include the topic to be discussed and must be provided to the Chief Retirement Officer at least ten working days prior to the meeting date.
2) **By written request to speak on a specific Board meeting agenda topic at the meeting.** The request must include the topic to be discussed and must be provided to the Chief Retirement Officer at least two hours prior to the meeting.
3) **By written request to speak on any TFFR related topic which is not on a regular Board meeting agenda under "Other Business."** The request must include the topic to be discussed and must be provided to the Chief Retirement Officer at least two hours prior to the meeting.
4) **By submitting a letter or written document** to the Chief Retirement Officer for distribution to the Board.

SPEAKER INFORMATION

- Speaker should stand (if able to do so) and be recognized by the Board President.
- Speaker should state Name and Organization Representing (if applicable).
- Speaker should state agenda number and topic which the speaker will address.
- 5-minute time limit for speaker unless additional time is allowed by Board President.
- No undue interruption, disorderly conduct or remarks made out of order.
- No charges or complaints against staff will be allowed.
- Questions and comments by the Board and Chief Retirement Officer will be allowed.
- Board or Staff response to the Speaker's remarks will be allowed but is not required.

TFFR BOARD

PUBLIC PARTICIPATION REQUEST FORM

Date and Time Submitted ____

Name ____

Organization Representing (if applicable) ___________________________________

Contact Information (phone number, email, or mailing address) ____________________

____

____

Topic or Agenda Item ____

____

____

3. RIO Board Meeting In-State Travel Expense Voucher

RETIREMENT AND INVESTMENT OFFICE
Board Meeting Travel Expense Voucher

____
Name (please print)

MEETING ATTENDED:

		Time	Office Use
❑ TFFR	Date		
❑ SIB	Date		
❑ Audit Committee	Date		
❑ Securities Litigation Committee	Date		
❑ Executive Review Committee	Date		
❑ TFFR Governance & Policy Review Committee	Date		
❑ SIB Governance & Policy Review Committee			

TRAVEL EXPENSES

MEALS (Reimbursed at state rate effective 8/1/15:

Date ________	❑ Breakfast (1st Qtr - 6am)	$7.00	Date ________	❑ Breakfast (1st Qtr - 6am)	$7.00
	❑ Lunch (2nd Qtr - Noon)	$10.50		❑ Lunch (2nd Qtr - Noon)	$10.50
	❑ Dinner (3rd Qtr - 6pm)	$17.50		❑ Dinner (3rd Qtr - 6pm)	$17.50
Date ________	❑ Breakfast (1st Qtr - 6am)	$7.00	Date ________	❑ Breakfast (1st Qtr - 6am)	$7.00
	❑ Lunch (2nd Qtr - Noon)	$10.50		❑ Lunch (2nd Qtr - Noon)	$10.50
	❑ Dinner (3rd Qtr - 6pm)	$17.50		❑ Dinner (3rd Qtr - 6pm)	$17.50

MILEAGE (Round trip):
FROM: ______________________
TO: ______________________
Total Miles: ________ @58.5¢/mile Effective 1/1/22

LODGING (Attach Receipts - reimbursed at actual cost up to $86.40/night + tax)
Effective 10/1/19:
Number of Nights: ________

MISCELLANEOUS (Attach Receipts):
Telephone Calls ______________________
Taxi, car rental, etc ______________________
Other ______________________

SIGNATURE:

DATE:

Office Use	
521020/521035 **Total Meals $**	________
521030 **Total Mileage $**	________
521015 **Total Lodging $**	________
Total Misc. $	________
TOTAL TRAVEL $	________

1/5/2022

4. ND Authorization for Out of State Travel

AUTHORIZATION FOR OUT OF STATE TRAVEL

STATE OF NORTH DAKOTA
SFN 2564 (8-96)

Department or Institution ND RETIREMENT AND INVESTMENT OFFICE	Dept. No. 190
Mailing Address (If not "Inside Capitol" mail) 3442 EAST CENTURY AVENUE, PO BOX 7100, BISMARCK ND 58507 7100	
Person Traveling (Last Name) (First Name)	
Destination(s) (City and State)	

METHOD OF TRAVEL:
☐ Train (1) ☐ State Vehicle (3) ☐ Commercial Air (5) ☐ State Plane (6)
☐ Bus (2) ☐ Personal Vehicle (4) ☐ Charter Plane (5) ☐ Other (Explain)

Date to depart from home	Date to return home	Does trip include vacation days? ☐ Yes ■ No

REASON FOR TRIP:
☐ Conference/Meeting (C) ☐ Seminar/Workshop/Training (T) ☐ Routine Work (W) ☐ Other (X)

NAME OF MEETING (DO NOT Abbreviate)

TOTAL NUMBER OF PERSONS FROM YOUR AGENCY FOR THIS TRIP/MEETING:	NOTE: Submit a separate SFN 2564 for each person at the same time.

ESTIMATED COST OF TRIP (To Nearest Dollar)					COSTS WILL BE PAID BY
Transportation	Meals, Lodging, Etc.	Registration	Rental Car/Taxi	TOTAL	Department
$	$	$	$	Estimated $	☐ Other (Explain in Remarks)

REMARKS

Signature of Person Traveling — Date

Supervisor Signature — Date

Deputy Executive Director — Date

Executive Director — Date

5. ND Travel Expense Voucher

TRAVEL EXPENSE VOUCHER
STATE OF NORTH DAKOTA
SFN 52785 (03-2015)

Month	Year	Department Name	Official Position

Employee Name	Employee ID	Business Unit	Fiscal Month	Biennium

Day	Points Covered By Travel	Hour (Show AM or PM) Depart	Hour (Show AM or PM) Arrive	Vehicle Miles	Ref	Comm'l Air Trans.	Ref	Taxi & Other Air Trans.	Ref	Misc. Exp.	Meals In State	Meals Out of State	Ref	Lodging In State	Lodging Out of State

Purpose of Travel and Explanation of Expenses:

Lodg. in State			521015	
Lodg. out of State			521075	
Meals in State			521020	
Meals out of State			521080	
IRS Meals-Taxable			521035	
Miscellaneous Expenses				
Other Transportation in State			521025	
Other Transportation out of State			521085	
Air Transportation in State			521010	
Air Transportation out of State			521070	
Vehicle Miles in State		X	521030	
Vehicle Miles out of State		X	521090	
Total Expenses				
(Ref. Doc. No. of Advance):			Less Travel Advance	
NET EXPENSES				

Line	Due Date	Dept. ID	Account	Oper. Unit	Class	Fund	Project ID	Activity ID	Resource Type	Resource Category	Amount

I hereby certify that the within itemized statement representing a claim for payment or per diem, mileage or travel expenses or a combination thereof, truthfully and accurately states the days of service and the mileage traveled, and the purpose thereof.

TOTAL

Employee Signature	Date
Departmental Approval	Date

INSTRUCTIONS FOR THE TRAVEL EXPENSE VOUCHER

Be sure to "Tab" from one field to another, rather than using the mouse.

Month – Enter the month of travel.

Year – Enter the year of travel.

Department Name – Enter the name of your Agency.

Official Position – Enter your job title.

Employee Name – Enter your name.

Employee ID – This number is assigned by payroll.

Business Unit – Your agency's 5-digit number.

Fiscal Month – Enter the fiscal month.

Biennium – Enter the biennium.

Day - Enter the day of the month in which the activity occurred.

Points Covered By Travel – Enter the departure/destination points.

Hour – Enter the departures and arrival time for the actual travel day (example: 7:00 am).

Vehicle Miles – Enter the number of vehicle miles traveled. If you have in state and out of state miles, separate them and list them on separate lines.

Ref – Enter an "I" for in-state travel or an "O" for out-of-state travel. **If this is not entered, the form will not calculate correctly.**

Comm'l Air Trans. – Enter the amount of commercial air transportation.

Ref – Enter an "I" for in-state travel or an "O" for out-of-state travel. **If this is not entered, the form will not calculate correctly.**

Taxi & Other Air Trans. – Enter taxi fares and any other air transportation.

Ref – Enter an "I" for in-state travel or an "O" for out-of-state travel. **If this is not entered, the form will not calculate correctly.**

Misc. Exp – Enter your other expenses that do not belong in any other column. Explain these expenses in the "Purpose of

Travel and Explanation of Expenses" section.

Meals In State – Enter the dollar amount of the meals in state.

Meals Out of State – Enter the dollar amount of the meals out-of-state.

Ref – Enter a "T" if your meals are taxable. Meals are taxable if no overnight stay is involved.

Lodging in State – Enter the dollar amount of lodging in state.

Lodging Out of State – Enter the dollar amount of lodging out-of-state.

Purpose of Travel and Explanation of Expenses – Enter the reason for travel and any explanations for your miscellaneous expenses.

The amounts entered in the top section of the form will automatically be totaled and filled in the appropriate fields of the middle section, as long as the correct reference codes were entered and you used the tab key to navigate between fields. The only exceptions are the following two fields:

Vehicle Miles in State – Calculates the total vehicle miles traveled within the state. You will need to enter the current rate. The total will then automatically calculate.

Vehicle Miles out of State – Calculates the total vehicle miles out of state. You will need to enter the current rate. The total will automatically calculate.

Total Expenses – Calculates the total expenses automatically.

Ref. Doc. No. of Advance – Enter the document number if you received a travel advance and the dollar amount.

Net Expenses – Calculates the net expenses automatically.

Print two copies of the Travel Expense Voucher.

Sign one copy, attach all of your receipts, and submit it for approval. Once approved and forwarded to accounting, the bottom fields will be cost-coded and entered. Remember to keep copies of the receipts for yourself as well.

6. TFFR Code of Conduct Annual Affirmation

NORTH Dakota | Retirement and Investment
Be Legendary.™

MEMORANDUM

To: **TFFR Board**

From:

Date:

RE: **Annual Affirmation of Code of Conduct Policy**

The *TFFR Board Members' Code of Conduct and Ethics Policy,* which is attached to this memorandum, details the Code of Ethical Responsibility for the TFFR Board. Item #11 of this policy indicates that each Board Member is required to reaffirm their understanding of this policy annually and disclose any conflicts of interest. Therefore, please read and sign the statement below to comply with this requirement.

"I have read and understand TFFR Board Members' Code of Conduct and Ethics Policy. I have disclosed any conflicts of interest as required by this policy"

Name (printed) ________________________________

Signature ____________________________________

Date _______________________________________

Detail of any conflicts of interest (if any):

SECTION II: TFFR Program Policies

A. Investment Policy Statement

1. Plan Characteristics and Fund Constraints

The North Dakota Teachers' Fund for Retirement (TFFR) is a successor pension benefit plan to the Teachers' Insurance and Retirement Fund (TIRF). TIRF was established in 1913, 24 years after North Dakota became a state, to provide retirement income to all public school and certain state teachers and administrators in the state of North Dakota. TIRF became TFFR in 1971. The plan is administered by a seven-member Board of Trustees comprised of: two active teachers, two retired teachers and one school administrator appointed by the Governor of North Dakota and two elected officials - the State Treasurer and the State Superintendent of Public Instruction.

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

	7/1/11	7/1/12	7/1/14
Employee	7.75%	9.75%	11.75%
Employer	8.75%	10.75%	12.75%

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

The TFFR Board has an actuarial valuation performed annually and an Experience Study and Asset Liability Study performed every five years. The actuarial assumed rate of return on assets was reduced to 7.25% from 7.75% as of July 1, 2020. Key plan and financial statistics are recorded in the most recent valuation report on file at the North Dakota Retirement and Investment office (RIO).

2. Fund Goals

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

As a result, the Fund goals are to:

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

preserve the purchasing power of their retirement benefit.

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

3. Responsibilities and Discretion of the State Investment Board (SIB)

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

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

The SIB may delegate investment responsibility to professional money managers. Where a money manager has been retained, the SIB's role in determining investment strategy and security selection is supervisory, not advisory.
At the discretion of the SIB, the Fund's assets may be pooled with other funds. In pooling funds, the SIB may establish whatever asset class pools it deems necessary with specific quality, diversification, restrictions, and performance objectives appropriate to the prudent investor rule and the objectives of the funds participating in the pools.

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

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

4. Risk Tolerance

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

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

5. Investment Objective

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

a. The fund's rate of return, net of fees and expenses, should at least match that of the policy benchmark over a minimum evaluation period of five years.

b. The fund's risk, measured by the standard deviation of net returns, should not exceed 115% of the policy benchmark over a minimum evaluation period of five years.

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

6. Policy Asset Mix

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

Asset Class	Policy Target (%)
Public Equity	45%
- Broad U.S. Equity	27%
- Global ex-U.S. Equity	18%
Fixed Income	27%
- Core Fixed Income	18%
- High Yield	8%
- Cash Equivalents	1%
Alternatives	28%
- Real Estate	9%
- Private Infrastructure	9%
- Timber	0%
- Private Equity	10%
Total	100%

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

7. Restrictions

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

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

   1) Economically targeted investing is prohibited unless the investment meets the Exclusive Benefit Rule.

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

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

1)The cost does not exceed the fair market value at the time of investment.

2)The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar task.

3)Sufficient liquidity is maintained in the Fund to permit distributions in accordance with the terms of the plan.

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

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

8. Internal Controls

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

9. Evaluation and Review

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

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

A list of the advisory services managing investments for the board.

A list of investments at market value, compared to previous reporting period, of each fund managed by each advisory service.

Earnings, percentage earned, and change in market value of each fund's investments.

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

All material legal or legislative proceedings affecting the SIB.

Compliance with this investment policy statement.

TFFR Board Adopted: May 25, 1995.
Amended: November 30, 1995; August 21, 1997; July 15, 1999; July 27, 2000; September 18, 2003; July 14, 2005; September 21, 2006; September 20, 2007; October 27, 2011; September 26, 2013; January 21, 2016; September 21, 2017; January 25, 2018; November 19, 2020, April 22, 2021.

Approved by SIB: November 18, 2011, February 26, 2016, September 22, 2017, February 23, 2018, November 20, 2020, May 21, 2021.

~~Change~~ Signatures to be updated: ED & CIO or ED CRO or just ED signature with Board approval dates?

ND Teachers' Fund for Retirement	ND State Investment Board
______________________________	______________________________
Date	Date
______________________________	______________________________
	Janilyn Murtha
Deputy Executive Director/ Chief Retirement Officer	Executive Director

B. Plan Management Policy Overview

The North Dakota Teachers' Fund for Retirement (TFFR) Plan Management Policy is a risk assessment and management tool that monitors the ongoing health of TFFR using the most recent actuarial valuation results and stochastic projections. The objective of the Plan Management Policy is to provide a basis for balancing the Fund's obligations with current assets and expected future contributions in order to maintain its long-term health and viability. The Policy also provides a framework that the Board can follow in establishing metrics for future funding and benefit changes. The Plan Management Policy is based upon metrics and a scoring system that were established at the July 24, 2019, Board meeting. The Plan Management Policy Score will be updated subsequent to each annual actuarial valuation.

1. Background

The Plan Management Policy is different from the Funding Policy. The Funding Policy sets parameters for the determination of the actuarially determined contribution (ADC) as of each actuarial valuation date. The Plan Management Policy establishes the parameters for a forward-looking assessment of TFFR.

An ADC is used as a benchmark to compare to the statutory contribution rate. An ADC reflects an asset valuation method (i.e., smoothing method), actuarial cost method (e.g., entry age normal), and amortization method for paying down unfunded liabilities or recognizing surplus assets. A description of the ADC is contained in a separate document ("Actuarial Funding Policy Statement"). In summary, the current TFFR funding policy relies on an ADC that is equal to the sum of (a) the employer normal cost rate and (b) the level percentage of pay required to amortize the unfunded actuarial accrued liability over the 30-year closed period that began July 1, 2013 (24 years remaining as of July 1, 2019).

2. Risk Assessment and Management

The Plan Management Policy is a risk assessment tool. The risks facing TFFR can be broadly classified into three categories: risks related to economic variables, risks related to demographic events, and risks related to external forces. An overview of the primary risks facing TFFR stakeholders follows.

a. Risks related to economic variables:
    b. Investment return – the risk that actual returns will be different than expected and more volatile than desired.
    c. Inflation (price inflation, wage inflation) – the risk that measures of inflation will be inconsistent with other economic measures.

b. Risks related to demographic events:
    a. Mortality/longevity – the risk that participants will live longer than expected
    b. Payroll and/or population growth – the risk that aggregate payroll will increase at a rate less than expected. This is relevant since contributions to TFFR are collected as a percentage of member payroll.
    c. Retirement/disability/termination experience – the risk that members leave active service in a manner than generates actuarial gains or losses relative to the assumptions.

There are even risks related to external forces (e.g., governance risk, regulatory risk, litigation risk, political risk), but these risks are difficult – or impossible – to manage.
The Plan Management Policy is a tool that measures investment return risk since investment return risk has the most significant impact on TFFR's long term financial health.

3. Scoring System Metrics

The scoring system metrics that will be monitored on a periodic basis are:

a. ***The current funded ratio***: This is equal to the ratio of the market value of assets to the actuarial accrued liability as of the latest actuarial valuation date. The purpose of this metric is to assess the current funded status of TFFR.
b. ***The downside funded ratio as of July 1, 2030***: Based on stochastic projections, determine the probability that the funded ratio will be less than 65%. The purpose of this metric is to assess the likelihood of the funded ratio not improving over the short term. The lower the likelihood that the funded ratio will not increase, the higher the score.
c. ***The target funded ratio as of July 1, 2040***: Based on stochastic projections, determine whether the funded ratio is projected to increase above certain thresholds over a longer time horizon with 51% or more probability.
d. ***Improvement in the funded ratio over a 10-year period***: Based on stochastic projections, determine the probability that the funded ratio will improve by 5% over the following 10 years.
e. ***Ability to recover/withstand from a market downturn***: Based on stochastic projections, determine the probability that the funded ratio improves by 5% over 10 years following a market downturn. A market downturn is defined as a two-year period with a compound average return of -10% or worse.

4. Policy Score

The Policy Score is the sum of the points that have been assigned to each metric and can range from 0 to 14 and correspond to a color ranging from red to green. A higher score indicates better overall health of TFFR. The Policy Score is grouped into the following categories:

Color	Policy Score	Indication
Green	11 to 14	TFFR objectives are being met or likely to be met
Yellow	7 to 10	TFFR objectives may be met over a longer period
Orange	4 to 6	Continue to monitor TFFR
Red	0 to 3	Changes to TFFR should be considered

5. Policy Scoring System

Each metric is assigned a score based upon the results of the annual actuarial valuation and resulting analysis as follows:

Metric	Criteria	Score
The current funded ratio	• Funded ratio of 90% or higher • Funded ratio between 80% and 90% • Funded ratio between 70% and 80% • Funded ratio less than 70%	• +3 • +2 • +1 • +0
The downside funded ratio as of July 1, 2030	• Under 65% funded ratio with less than 20% probability • Under 65% funded ratio with less than 30% probability • Under 65% funded ratio with less than 40% probability • Under 65% funded ratio with more than 40% probability	• +3 • +2 • +1 • +0
The target funded ratio as of July 1, 2040	• 85% or higher with 51% or more probability • Between 80% and 85% with 51% or more probability • Between 75% and 80% with 51% or more probability • Between 70% and 75% with 51% or more probability • Not more than 70% with 51% or more probability	• +4 • +3 • +2 • +1 • +0
Improvement in the funded ratio over a 10-year period	• Funded ratio improves by +5% over 10 years with 66% probability • Funded ratio improves by +5% over 10 years with 50% probability • Funded ratio does not improve by +5% over 10 years with 50% probability	• +2 • +1 • +0
Ability to recover from or withstand a market downturn	• Funded ratio after downturn improves by +5% over 10 years with 50% probability • Funded ratio after downturn improves by +5% over 10 years with 33% probability • Funded ratio after downturn does not improve by +5% over 10 years with 33% probability	• +2 • +1 • +0

For purposes of scoring, probabilities and funded ratios will be rounded to the nearest whole percentage. For example, a probability of 49.6% would be rounded up to 50%.

6. Outside Factors

Other factors outside of TFFR could have an effect on the directional trend of future Policy Scores. These factors include, but are not limited to:

a. Projected economic conditions
b. Market cycles
c. North Dakota economy

TFFR Staff and the actuary will discuss the appropriate outside factors and determine whether these factors are expected to potentially improve or worsen the Policy Score.

7. Actuarial Assumptions

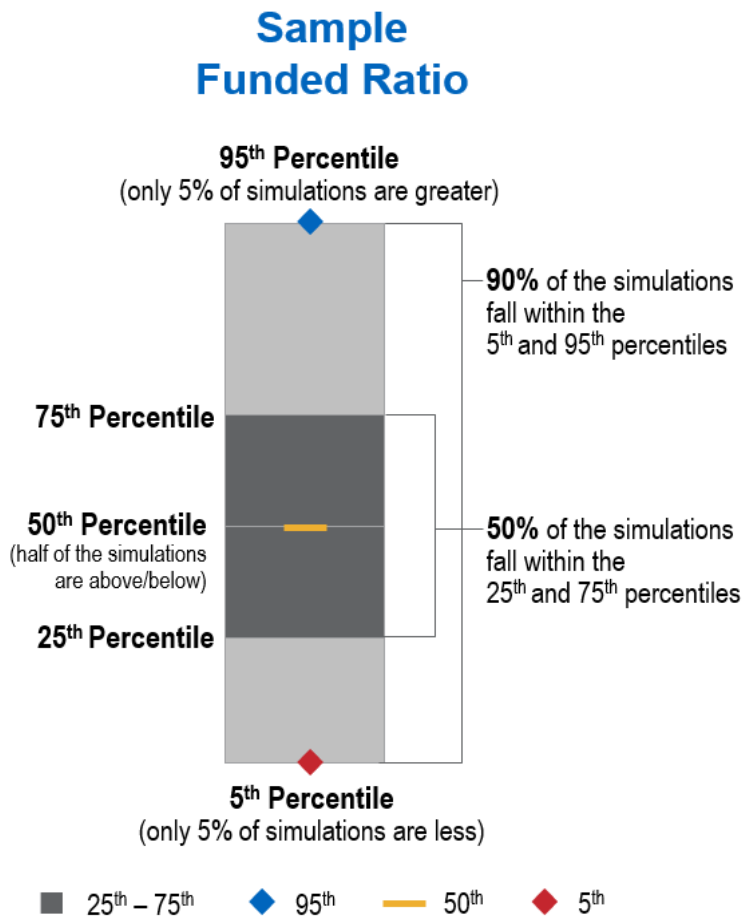
The actuarial assumptions used will be the same as those used for the annual actuarial valuation. The actuarial assumptions are described in detail in the actuarial valuation report. The funded ratio used in the plan management policy is based upon the market value of assets.

In order to stochastically model investment returns, Capital Market Assumptions are used. Capital Market Assumptions are developed by investment firms and represent expectations for future risk and returns for different asset classes. The Capital Market Assumptions used for the analysis are those published in the most recently available Horizon's Annual Survey of Capital Market Assumptions. If Horizon discontinues the publication of this survey, a suitable replacement or alternative will be used.
Projected liabilities are based upon an "open group" liability forecast. An open group projection generates projected populations for each future valuation date based on assumptions related to retirement, termination, salary increases, mortality, etc. New entrant records are generated to replace active members that decrement in the model in order to maintain a level active membership in the future. The profile of new entrants is based on recent demographics of new hires, subject to input from TFFR staff and Board.

8. Stochastic Modeling

The Capital Market Assumptions are used with TFFR's target asset allocation in order to simulate 5,000 investment portfolio return scenarios, each simulation representing a 20-year period. The simulated investment returns, along with open group liability forecasts, are used to model the projected funded ratio. The results are grouped into percentiles and summarized as a range:

a. **Best Case**: Better cases would occur only 5% of the time (above the 95th percentile in the example below)
b. **Most Likely**: Better or worse cases (50th percentile) are equally likely
c. **Worst Case**: Worse cases would occur only 5% of the time (below the 5th percentile in the example below)



TFFR Board Adopted: October 24, 2019

Amended: January 23, 2020

C. Actuarial Funding Policy Statement

1. Introduction

The purpose of this Actuarial Funding Policy is to record the funding objectives and policy set by the Board of Trustees (Board) for the North Dakota Teachers' Fund for Retirement (TFFR). Effective with the July 1, 2013, actuarial valuation, the Board establishes this Actuarial Funding Policy to help ensure the systematic funding of future benefit payments for members of TFFR. The contributions made to TFFR are set by statute. These statutory contributions will be compared to the contributions determined under the funding policy in order to assess the appropriateness of the statutory contributions. Based upon this comparison, the Board will decide what action to take, if any. The employer contribution determined under the funding policy is called the actuarially determined employer contribution (ADEC). In addition, this document records certain guidelines established by the Board to assist in administering TFFR in a consistent and efficient manner.

This Actuarial Funding Policy supersedes any previous Actuarial Funding Policies and may be modified as the Board deems necessary.

2. Goals of Actuarial Funding Policy

a. To achieve long-term full funding of the cost of benefits provided by TFFR;

b. To seek reasonable and equitable allocation of the cost of benefits over time;

c. To maintain a policy that is both transparent and accountable to the stakeholders of TFFR, including plan participants, employers, and residents of the State of North Dakota.

3. Actuarially Determined Employer Contribution and Funding Policy Components

TFFR's actuarially determined employer contribution is comprised of the Normal Cost and an amortization of the Unfunded Actuarial Accrued Liability (UAAL). The Normal Cost and the amortization of the UAAL are determined by the following three components of this funding policy:

a. Actuarial Cost Method: the techniques to allocate the cost/liability of retirement benefits to a given period;

b. Asset Smoothing Method: the techniques that spread the recognition of investment gains or losses over a period of time for the purposes of determining the Actuarial Value of Assets used in the actuarial valuation process; and

c. Amortization Policy: the decisions on how, in terms of duration and pattern, to reduce the difference between the Actuarial Accrued Liability and the Actuarial Value of Assets in a systematic manner.

4. Actuarial Cost Method:

The Entry Age Normal method shall be applied to the projected benefits in determining the Normal Cost and the Actuarial Accrued Liability. The Normal Cost shall be determined as a level percentage of pay on an individual basis for each active member.

5. Asset Smoothing Method:

The investment gains or losses of each valuation period, as a result of comparing the actual market return to the expected market return, shall be recognized in level amounts over 5 years in calculating the Actuarial Value of Assets. Deferred investment gains or losses cannot exceed 20% of the Market Value of Assets (i.e., the Actuarial Value of Assets cannot be more than 120%, nor less than 80%, of the Market Value of Assets as of any valuation date).

6. Amortization Policy:

a. The UAAL, (i.e., the difference between the Actuarial Accrued Liability and the Actuarial Value of Assets), as of July 1, 2013, shall be amortized over a "closed"

30-year period. In other words, the UAAL as of July 1, 2014 shall be amortized over 29 years, the UAAL as of July 1, 2015 shall be amortized over 28 years, etc.

b. Beginning with the July 1, 2024, valuation, the Board shall have the discretion to continue the "closed" amortization period, or instead to amortize the UAAL over another period, not to exceed 20 years.

c. Any new UAAL as a result of change in actuarial assumptions or methods will be amortized over a period equal to the amortization period of the UAAL. The Board shall have the discretion to amortize the new UAAL as a result of change in actuarial assumptions or methods over a period of 20 years.

d. Unless an alternative amortization period is recommended by the Actuary and accepted by the Board based on the results of an actuarial analysis, the increase in UAAL as a result of any plan amendments will be amortized over a period not to exceed 20 years.
e. In a situation where the amortization of the UAAL has more than one component, a single equivalent amortization period will be determined by the Actuary.
f. UAAL shall be amortized as a level percentage of payroll so that the amortization amount in each year during the amortization period shall be expected to be a level percentage of covered payroll, taking into consideration the current assumption for general payroll increase.

g. If an overfunding exists (i.e., the UAAL becomes negative so that there is a surplus), such surplus and any subsequent surpluses will be amortized over an "open" amortization period of 30 years. Any subsequent UAAL will be amortized over 20 years as the first of a new series of closed period UAAL amortization.

7. Actuarial Assumptions Guidelines

The actuarial assumptions directly affect only the timing of contributions; the ultimate contribution level is determined by the benefits and the expenses actually paid offset by actual investment returns. To the extent that actual experience deviates from the assumptions, experience gains and losses will occur. These gains (or losses) then serve to reduce (or increase) the future contribution requirements.

Actuarial assumptions are generally grouped into two major categories:

a. Demographic assumptions – including rates of termination, retirement, disability, mortality, etc.

b. Economic assumptions – including investment return, salary increase, payroll growth, inflation, etc.

The actuarial assumptions are described in detail in the actuarial valuation report. They represent the Board's best estimate of anticipated experience under TFFR and are intended to be long term in nature. Therefore, in developing the actuarial assumptions, the Board considers not only past experience but also trends, external forces and future expectations.

Actuarial experience studies are completed every five years or at the Board's direction.

8. Glossary of Funding Policy Terms

a. **Present Value of Benefits (PVB) or total cost**: the "value" at a particular point in time of all projected future benefit payments for current plan members. The "future benefit payments" and the "value" of those payments are determined using actuarial assumptions as to future events. Examples of these assumptions are estimates of retirement patterns, salary increases, investment returns, etc. Another way to think of the PVB is that if the plan has assets equal to the PVB and all actuarial assumptions are met, then no future contributions would be needed to provide all future service benefits for all current members, including future service and salary increases for current active members.

b. **Actuarial Cost Method:** allocates a portion of the total cost (PVB) to each year of service, both past service and future service.

c. **Normal Cost:** the cost allocated under the Actuarial Cost Method to each year of active member service.

d. **Entry Age Normal Actuarial Cost Method:** A funding method that calculates the Normal Cost as a level percentage of pay or level dollar amount over the working lifetime of the plan's members.

e. **Actuarial Accrued Liability (AAL)**: the value at a particular point in time of all past Normal Costs. This is the amount of assets the plan would have today if the current plan provisions, actuarial assumptions and participant data had always been in effect, contributions equal to the Normal Cost had been made and all actuarial assumptions came true.

f. **Market Value of Assets (MVA):** the fair value of assets of the plan as reported in the plan's audited financial statements.

g. **Actuarial Value of Assets (AVA):** the market value of assets less the deferred investment gains or losses not yet recognized by the asset smoothing method.

h. **Unfunded Actuarial Accrued Liability (UAAL):** the portion of the AAL that is not currently covered by the AVA. It is the positive difference between the AAL and the AVA.

i. **Surplus:** the positive difference, if any, between the AVA and the AAL.

j. **Actuarial Value Funded Ratio:** the ratio of the AVA to the AAL.

k. **Market Value Funded Ratio:** the ratio of the MVA to the AAL.

l. **Actuarial Gains and Losses:** changes in UAAL or surplus due to actual experience different from what is assumed in the actuarial valuation. For example, if during a given year the assets earn more than the investment return assumption, the amount of earnings above the assumption will cause an unexpected reduction in UAAL, or "actuarial gain" as of the next valuation. These include contribution gains and losses that result from actual contributions made being greater or less than the level determined under the policy.

m. **Valuation Date:** July 1 of every year.

D. Operations

1. Membership Data and Contributions

A. Ensure the security and accuracy of the members' permanent records and the collection of member and employer contributions from every governmental body employing a TFFR member.

B. Accordingly, the administrative means will be to:

1. Retain member and employer documents applicable to the retirement program.

2. Safeguard TFFR database files.

3. Protect the confidential information contained in member and employer files.

4. Collect the member and employer contributions from the employers based on retirement salary earned by the member.

5. Monitor the employer reporting process including the timely filing of information, consistency of month-to-month data, and changes in the employer payment plan models.

6. Review the individual member data, salary, and service credit for accuracy.

7. Post and validate the data received from the employer to the individual member accounts.

8. Provide annual statements to every member.

9. Summarize the member data reported and notify the employers annually of the prior fiscal year information.

10. Perform reviews to monitor whether individuals employed as "teachers" in North

Dakota school districts, political subdivisions, and state institutions are reported to TFFR in compliance with the North Dakota Century Code (NDCC).

11. Provide publications and reporting instructions to employers on TFFR.

12. Transfer member and employer contributions to the investment program in a timely manner.

C. **Monitoring** (Method, Responsibility, Frequency)

1. Internal Report

   a. Disclosure of compliance to the board from RIO's internal auditors.

   b. Compliance for individual accounts is monitored through internal audits of staff compliance with state laws, rules, board policy, and procedures.

2. External Report

   a. Disclosure of compliance to the board by RIO's external auditors as a part of the annual audit.

   b. Disclosure of compliance to members through annual statements.

2. Member Services

Provide direct services and public information to members of TFFR.

A. Accordingly, the administrative means will be to:

1. Enroll, update, maintain, and certify all member accounts.

2. Respond to member inquiries on the retirement program.

3. Provide statewide benefits counseling services to members.

4. Make group presentations and distribute information at conferences and conventions throughout the state.

5. Coordinate and conduct retirement education programs for members on a statewide basis.

6. Certify eligibility for TFFR benefits and purchase of service credit.

7. Calculate and process claims for refund, retirement, disability, survivor, and Qualified Domestic Relations Order (QDRO) benefits, as well as claims for purchasing credit.

8. Permit members to change designated beneficiaries in the event of life occurrences identified in the administrative rules.

9. Close retirement accounts of deceased teachers.

10. Develop and distribute information to the members on the retirement program and related topics through newsletters, annual reports, member handbooks, brochures, and retirement planning materials.

11. Maintain a website and provide online services to provide members with a variety of access methods for TFFR information.

B. **Monitoring** (Method, Responsibility, Frequency)

1. Internal Report

   a. Disclosure of compliance to the board through internal audits on compliance with laws, rules, and policies.

   b. Periodic presentations by staff at board meetings.

2. External Report

   a. Receive annual reports from leadership of groups representing the plan's beneficiaries.

   b. RIO's annual audit by independent auditor.

   c. Written and oral communication with board members from teachers regarding payment and processing of benefit claims.

3. Disclosure of Confidential Information for Treatment, Operational, or Payment Purposes

The TFFR Board of Trustees has determined that confidential information for treatment, operational, or payment purposes under NDCC 15-39.1-30(12) includes:

~~1.~~ A. Information related to enrollment, participation, benefits, ~~or~~ contributions , and otherwise necessary for the administration and operation of the program may be shared with participating employers or TFFR contractors, attorneys, and consultants. ~~for purposes of maintaining a member's participation and benefits in the TFFR program. Such sharing of information is limited to that information which is necessary to assure that a member's participation and benefits are properly handled. All such information remains confidential whether in the possession of TFFR, its participating employers, or its contractors.~~

~~2. Information necessary for the administration and operation of the program may be shared with TFFR attorneys and consultants. To the extent such information is shared, it remains confidential.~~
~~3. Information relating to the death benefits and beneficiary designations of a deceased member or beneficiary may be shared with an ex-spouse if listed as a beneficiary on a designation of beneficiary form, subsequent to the death of the applicable member or beneficiary, but in advance of a final determination regarding the applicable beneficiary, only to the extent necessary to accurately identify the appropriate beneficiary.~~

~~4.~~ B. Information relating to the death benefits and beneficiary designations of a member or beneficiary may be shared with any other person if the beneficiary is unknown or unable to be located, only to the extent necessary to accurately identify the appropriate beneficiary or to close an account subsequent to the death of a member or beneficiary.

~~All other requests for confidential information under this policy must first be submitted to the Deputy Executive Director/Chief Retirement Officer and then reviewed by the TFFR Board of Trustees.~~

TFFR Board adopted: September 25, 2014

4. Account Claims

A. Ensure the payment of benefit claims to members of TFFR.
Accordingly, the administrative means will be to:

1)Pay retirement benefits based on an estimated final salary for members retiring upon completion of their teaching contract and whose final salary has not been reported to TFFR.

2)Allow retired members receiving an annuity from TFFR to have payroll deductions subtracted from their monthly benefit, pursuant to section II.D.5. ~~including: , but not limited to: health, life, and other insurance premiums payable to NDPERS, North Dakota Retired Teachers Association (NDRTA) dues, North Dakota United (ND United) Retired dues, and federal and North Dakota income tax withholdings.~~

3)Distribute payments for benefit claims (annuities, PLSOs, refunds, and rollovers) once per month. ~~Benefit payments made by Electronic Funds Transfer (EFT) will be deposited and payable on the first working day of each month. Benefit payments made by check will be mailed on the last working day of the previous month payable on the first working day of each month.~~

4)Distribute special payments for benefit claims in the event of unforeseen circumstances (i.e., death, disability, Court Order, staff processing delay, etc.) if approved by the Deputy Executive Director-Chief Retirement Officer.

~~5)Mail~~ Produce and make available new account notices and account change notices to retired members and beneficiaries receiving benefits.

B. **Monitoring** (Method, Responsibility, Frequency)

1) Internal Report
   i. Disclosure of compliance to the board through internal audits on compliance with laws, rules, and policies.

2) External Report

ii. Disclosure of compliance to the board through annual audit by RIO external auditors.

5. Deductions from Annuity Checks

A. It shall be the policy of the TFFR Board of Trustees to allow retirees and beneficiaries receiving annuity payments to have payroll deductions subtracted from their monthly payments.

B. To initiate, change, or stop a deduction, the retiree must notify the administrative office in writing at least ten working days prior to the date the monthly benefit is issued. All deductions withheld will be forwarded to the appropriate entity within three working days after the first of the month or as required by federal/North Dakota state law. Authorization forms are to be kept on file at the administrative office.

C. The following deductions are available to retirees and beneficiaries receiving monthly annuity benefits:

1) Health, life, and other insurance premiums payable to the NDPERS.

2) Annual dues payable to the NDRTA and the ND United Retired organization.

3) Federal and North Dakota income tax withholdings.

4) Court ordered payments including child support orders, Qualified Domestic Relations Orders (QDRO), IRS tax levies, federal garnishments, and other court ordered payments, subject to approval by the Attorney General's office.

5) Additional deductions may be added upon approval by the board.

6. Military Service Credit

It shall be the policy of the TFFR Board of Trustees that a teacher purchasing military service be credited with a full year of credit if the service was rendered for at least 175 school days or a period of nine months within any fiscal year.

7. Payment of Benefits

It shall be the policy of the TFFR Board of Trustees to distribute payments for benefit claims (annuities, refunds/rollovers) once per month. Distributions will be mailed on the last working day of the previous month payable on the first working day of each month.

In order for a teacher to assure receipt of a benefit payment on the first working day of the month, the required information and forms must be filed with the administrative office at least ten working days prior to the distribution date.

The Deputy Executive Director/Chief Retirement Officer may authorize special payments to pay benefit claims due to unforeseen circumstances that delay the processing of the claim.

Payments to a teacher approved for a refund/rollover will include all contributions and interest paid by a teacher for the purchase and repurchase of service credit. This is in addition to the entitled refund of member contributions plus interest. The Deputy Executive Director/Chief Retirement Officer may waive the 120-day waiting period for refunds/rollovers based on necessary documentation.

8. Retirement Benefit Payments

A. It is the policy of the TFFR Board of Trustees that new retirees will have their initial retirement benefit payment calculated using either estimated or final salary and service credit information:

1) Estimated salary and service credit information

The member's initial retirement benefit is calculated using 90% of the estimated current year salary for final average salary calculation purposes. If the final information reported by the employer is different than the estimated information, the member's monthly retirement benefit will be adjusted retroactive to the member's retirement date. Using estimated information allows a member to begin receiving retirement benefits sooner but results in correction of benefits at a later date retroactive to the member's retirement date.

2) Finalized salary and service credit information

The member's retirement benefit is calculated using finalized current year salary and service credit information. After salary, service credit, and last date of employment are reported by the employer and verified by TFFR, the member's retirement benefit is calculated and claim is processed. Using finalized information delays a member's first retirement benefit payment, but when payment is made, it is retroactive to the member's retirement date.

B. Under all circumstances, if any change or error in the records of TFFR or a participating employer or if any calculation results in a member receiving more or less in benefits than the member is entitled to receive, TFFR will correct the error and adjust the benefit (NDCC 15-39.1-31 and 32).

9. Voiding Checks

It shall be the policy of the TFFR Board of Trustees to void any uncashed benefit checks for the payment of retirement, disability, survivor, and refund benefits after six months. Should the payee request payment after six months, the RIO will reissue a check, but without additional interest.

10. In-Staff Subbing Contract Period – Per Board action on 7-22-21 the policy is suspended as it applies to rehired retirees until further Board action.

It is the policy of the TFFR Board of Trustees that the following guidelines apply for the purpose of determining the contract period for in-staff subbing for active members and re-employed retirees as provided for in NDCC 15-39.1-04 (4) and (12), 15-39.1-19.1, 15-39.1-19.2, and NDAC 82-05-06-01.

A. In-staff subbing is defined as substitute teaching duties performed by a contracted teacher for the contracting TFFR participating employer.

B. If the active member or re-employed retiree has a contract or written agreement with the participating employer for full or part time work, TFFR will view the beginning and ending calendar dates indicated on the contract as the contract term to determine the contract period, unless the contract period is otherwise specifically detailed in the active member or re-employed retiree's contract.

    1) If substitute teaching duties are performed during the contract term, those duties are considered in-staff subbing, and retirement contributions are required to be paid on the substitute teaching pay. The in-staff subbing hours are reported as compensated hours for active members and are counted toward the annual hour limit for re-employed retirees (700 – 1000 hours depending upon length of contract).
    2) If substitute teaching duties are performed before the beginning calendar date or after the ending calendar date of the contract term, those duties are not considered in-staff subbing, and no retirement contributions are required to be paid on the substitute teaching pay. The subbing hours are not reported as compensated hours for active members and are not counted toward the annual hour limit for re-employed retirees.

C. If the active member or re-employed retiree does not have a contract or written agreement with the participating employer, then no retirement contributions are required to be paid on the substitute teaching pay. The subbing hours are not reported as compensated hours for active members and are not counted toward the annual hour limit for re-employed retirees.

D. This policy does not prohibit the Board from making an eligible salary determination for an individual member pursuant to N.D.A.C. 82-04-02-01.

11. Plan Beneficiaries

TFFR beneficiaries are:

A. Plan Members:

1) Active – all persons who are licensed to teach in North Dakota and who are contractually employed in teaching, supervisory, administrative, or extracurricular services:
    i. Classroom teachers
    ii. Superintendents, assistant superintendents, county superintendents
    iii. Business managers
    iv. Principals and assistant principals
    v. Special teachers
    vi. Superintendent of Public Instruction, professional employees of Dept. of Public Instruction and Dept. of Career and Technical Education,

unless transferred to North Dakota Public Employees Retirement System (NDPERS)

vii. Professional or teaching staff of Center for Distance Education, Youth Correctional Center, School for the Blind and School for the Deaf.

viii. Other persons or positions authorized in state statutes

2) Annuitants – All persons who are collecting a monthly benefit:
   - i. Retirees
   - ii. Disabilitants
   - iii. Survivors/Beneficiaries

3) Inactive members:
   - i. Vested
   - ii. Nonvested

B. Employers:

1) School districts, special education units, vocational centers, County superintendents, Regional Education Associations (REA)
2) State institutions and agencies defined in state statutes
3) Other TFFR participating employers

12. Head Start Program Employees

It shall be the policy of the TFFR Board of Trustees that employees of a Head Start Program who are certified to teach and contracted with a school district or other participating employer, are members of TFFR if the following conditions are met:

A. Grantee agency for the Head Start Program is the school district which is governed by the local school board.

B. Head Start Program employees are on the school district teaching or administrative faculty in positions such as coordinator, director, teacher, or home visitor.

C. Head Start Program employees are on the school district salary schedule and negotiate for salary and benefits like other school district teaching faculty.

13. PERS Retirement Plan Election (DPI and CTE)

A. NDCC 15-39.1-09(3) allows new employees of the Department of Public Instruction (DPI), who are eligible for TFFR coverage and hired after January 6, 2001, excluding the State Superintendent of Public Instruction, to elect to become participating members of ND Public Employees Retirement System (PERS).

B. NDCC 15-39.1-09(4) allows new employees of the Department of Career and Technical Education (CTE) who are eligible for TFFR coverage and hired after July 1, 2007, to elect to become participating members of PERS.

C. It is the policy of the TFFR Board of Trustees to allow the PERS retirement plan election by eligible new DPI and CTE employees under the following guidelines:

1) Any new employee who is required to participate in TFFR under NDCC 15-39.1-04(11)(b) and who is entered onto the payroll of DPI after January 6, 2001 (except the Superintendent of Public Instruction), or CTE

after July 1, 2007, is eligible to make the election to become a participating member of NDPERS.

2) If eligible, the new employee must complete the "NDPERS/TFFR Membership Election" form within ninety days of hire. Until this election is made, the employee will be enrolled in the NDPERS retirement plan. If no election is made, the employee will be transferred to TFFR.

3) If the new employee is a former DPI employee or is retired from DPI and receiving TFFR benefits, the employee must have a one- year break in service to be eligible to elect participation in PERS. If the new employee is a former CTE employee or is retired from CTE and receiving TFFR benefits, the employee must have a one-year break in service to elect participation in PERS.

4) If the new employee is a TFFR retiree (but not a former DPI or CTE employee), the retiree may elect participation in PERS upon date of hire. The retiree is not subject to the one-year waiting period and is not subject to the TFFR retiree annual hours limit.

E. Employer Policies

1. Employer Payment Plan Models

A. The TFFR Board has developed models relating to employer payment of member
B. contributions as provided for in NDCC 15-39.1-09 and NDAC 82-04-01. The models are outlined in employer instructions prepared by the fund. Special provisions apply to state agencies and institutions, and employers that have not adopted a model.

C. Employers must select the employer payment plan model under which they will pay member contributions on a form provided by the administrative office. The model selected by the employer can only be changed once each year at the beginning of the fiscal year.

D. The following employer payment plan models are available to participating employers:

1) Model 1: Member contributions are paid by the member through a salary reduction and remitted to TFFR by the employer as tax deferred contributions.

2) Model 2 All: Member contributions are paid by the employer as a salary supplement and remitted to TFFR as tax deferred contributions.

3) Model 2 Partial (%): A fixed percentage (1% minimum) of the member contributions are paid by the employer as a salary supplement and remitted to TFFR as tax deferred contributions. The remaining member contributions are paid by the member and remitted by the employer as tax deferred contributions.

4) Model 3 Partial ($): A fixed dollar amount of the member contributions are paid by the employer as a salary supplement and remitted to TFFR as tax deferred contributions. The remaining member contributions are paid by the member and

remitted by the employer as tax deferred contributions. Effective July 1, 2003, employers may no longer select Model 3. Any employers currently paying member contributions under this model may continue as a closed group, but Model 3 will no longer be available to other employers. Effective July 1, 2019, Model 3 will be eliminated, and no employers will be allowed to utilize this model.

5) Model 4 State Agencies: Four Percent (4%) of the member contributions (or the % of member contributions the State agrees to pay) are paid by the State as a salary supplement and remitted to TFFR as tax deferred contributions. The remaining member contributions are paid by the member and remitted by the employer as tax deferred contributions.

E. Employers who do not select one of the above models must report member contributions paid by the member and remitted by the employer as taxed contributions. Payment of member contributions cannot be made on a tax deferred basis unless one of the above approved models is selected in writing.

2. Employer Reporting Errors

It is the policy of the TFFR Board of Trustees that when an unintentional error in the reporting of retirement contributions by a TFFR participating employer is discovered during an employer audit, the following guidelines will apply:

a. The employer will be billed for all material shortages due plus interest or refunded for all material overpayments.
b. Materiality limit to be used in determining if a member's account will be corrected is an aggregate total of ~~$300~~ $500 in a fiscal year for salary per individual member per year, unless otherwise approved by the Deputy Executive Director-Chief Retirement Officer.
c. The interest charged to the employer will be the actuarial
i. investment return assumption.
~~d. The time period will be from the onset of the error or three years prior to the beginning of the current school year.~~
~~d.~~e. Failure of the employer to pay the required shortages or provide required information will constitute "failure to make required reports and payments" and require application of section 15-39.1-23, NDCC.
~~e.~~f. The TFFR board reserves the right to negotiate with an employer.
~~f.~~g. The employer must respond in writing to the ~~audit~~ finding(s) and/or recommendation(s) within 30 days of being notified ~~the report~~.
~~g.~~h. ~~NDRIO will conduct a follow-up review of the audit finding(s) and/or recommendation(s) once one year of unaudited salary is available or as determined by the Deputy Executive Director/Chief Retirement Officer.~~

3. Employer Reports

A. It shall be the policy of the TFFR Board of Trustees to require all participating employers to file reports and make payment of member and employer contributions on a monthly basis to the RIO. Both payment and report are due by the 15th day of the month following the end of the reporting period. ~~Effective July 1, 2014, reports must be~~

~~submitted in one of the following formats: 1) paper reports, 2) internet, unless another method is approved by the Deputy Executive Director/Chief Retirement Officer.~~

B. The administrative office will monitor late TFFR employer reports and payments and establish procedures for minor processing delays. Except for unintentional reporting errors, employers that do not meet the established deadlines for filing required reports shall be assessed a civil penalty as required in NDCC 15-39.1-23 unless the Deputy Executive Director/Chief Retirement Officer approves a request for a waiver of the penalty under special circumstances such as:

~~a.~~ 1) Death, surgery, or illness of the individual responsible for TFFR reports or their family.

~~b.~~ 2) "Acts of God" that require an employer to close school such as blizzards, storms, or floods.

~~c.~~ 3) Unforeseen events such as resignation of the individual responsible for TFFR reports, computer malfunction, etc.

C. The request for a waiver must be in writing and signed by the administrator.

~~In all late situations, member and employer contributions will be collected from the employer at the earliest date possible. Employers cooperating with TFFR to resolve the late filing of a report shall not have their state apportionment money (foundation payments) withheld but will be assessed interest as required in NDCC 15-39.1-23.~~

4. Ineligible TFFR Salary

The TFFR Board desires to provide guidance to TFFR employers regarding how eligible salary shall be determined for payments made to licensed teachers for performing certain duties.

NDCC 15-39.1-04(10)(h) provides that eligible salary does not include "*other benefits or payments not defined in this section which the board determines to be ineligible teachers' fund for retirement salary.*"

It is the policy of the TFFR Board of Trustees that effective July 1, 2016, additional payments made by a TFFR participating employer to a licensed TFFR member for equipment maintenance and repair, jobsite prep and finish work, and similar types of nonteaching duties are not eligible salary for TFFR purposes if the duties are not included on the member's regular teaching contract(s).

This policy does not prohibit the Board from making an eligible salary determination for an individual member pursuant to N.D.A.C. § 82-04-02-01.

F. Member Communication

1. Disclosure to Membership

It shall be the policy of the TFFR Board of Trustees that member handbooks, member statements, member newsletters, and financial reports be prepared and made available for

TFFR members. RIO staff will prepare, and the TFFR Board of Trustees will review for approval at least once a biennium a communications plan that summarizes the content and method for providing member and employer education and publications. ~~The information, or notification that the information is available, may be provided by mail, email to employers for distribution, RIO website and/or TFFR Member Online. Confidential member information will not be emailed to employers for distribution nor on the RIO website.~~

- ~~**Member Handbooks**Summary Plan Descriptions)~~

~~A member handbook will be developed and will include information about membership, contribution rates, service credit, benefit provisions for service retirement, disability retirement, and survivor benefits, eligibility for benefits, and how to apply for benefits. The handbook will be updated within 6 months of adoption of any significant legislative changes made to the plan. Members will be notified that the member handbook is available on the RIO website, and a printed copy can be provided upon request.~~

- ~~Member Annual Statements~~

~~Effective July 1, 2020, active and inactive members will be provided an annual statement on TFFR Member Online within six months of fiscal year end reporting the status of their member account as of June 30 of the current year. The annual statement will include: member's name, address, personal identification number, date of birth, beneficiary on file, value of account, retirement salary reported for current year, service credit earned during the current year, accumulated service credit, date of eligibility for unreduced benefits, retirement benefit estimate, and other information pertinent to the member's account, unless the member has dual service, a qualified domestic relation order, or other special circumstances requiring nonstandard benefit calculations.~~

~~Retired members and beneficiaries receiving monthly benefits will be mailed an annual statement to their home address reporting the status of their member account as of December 30 of the current year. The annual statement will include: retired member's name, address, personal identification number, beneficiary on file, value of account, accumulated service credit, retirement date, retirement option, benefits received life-to- date, current monthly benefit, adjustments to benefit (if applicable), and other information pertinent to the retiree's account.~~

- ~~**Member Newsletters**~~

~~Member newsletters will be published and distributed to active, inactive, and retired TFFR members four times per year. Two newsletters will contain legislative, actuarial,~~

~~C-6~~

~~financial, and plan information (Report Card and Retirement Today), and two newsletters will contain investment information (Vested Interest). Member newsletters will be provided electronically to employers for e-mail distribution to active members, and will be mailed to inactive and retired members.~~

- ~~Annual Financial Report~~

~~A comprehensive annual financial report (CAFR) will be published within six months following every fiscal year end. The report will include financial, actuarial, and investment information~~

~~about the plan. Members will be notified that the CAFR is available on the RIO website, and a printed copy can be provided upon request.~~

2. Information Dissemination

It is the policy of the TFFR Board of Trustees to allow member and employer interest groups and other approved third parties to send specific information to the TFFR membership using a "blind mailing" method. The information to be mailed and third party organization must be approved by the RIO Deputy Executive Director/Chief Retirement Officer in advance. Member and employer interest groups include, but are not limited to, North Dakota Council of Educational Leaders (NDCEL), ND United, NDRTA, and North Dakota School Boards Association (NDSBA).

Under the "blind mailing" method, the third party must submit information or materials they wish to send to TFFR members. The third party must sign an agreement that they will not use the mailing to engage in partisan political activities.

If approved, the third party will forward the materials to an independent mailing company approved by TFFR. The mailing company must sign a "no disclosure" agreement with TFFR.

TFFR will then supply membership mailing information to the mailing company. The mailing company will combine the material from the third party with the mailing list and send to TFFR members. The cost of the mailing will be paid by the third party.

TFFR Board Adopted: July 15, 1999.

Amended: November 15, 2001.

3. Outreach Program Facilities

It shall be the policy of the TFFR Board of Trustees that school district facilities used for TFFR outreach programs must meet ADA requirements. In addition, authorized school district employees must be present to direct guests to the proper meeting room and lock the building at the close of the program. RIO employees who are conducting outreach programs for TFFR members are not allowed to be in school district buildings without the presence of an administrator, teacher, or other authorized school district employee.

RIO staff will not be able to conduct outreach programs at that site if the above conditions are not met.

G. Other Policies – Recommended for Removal

1. Trust Fund Evaluation/Monitoring

~~Ensure actuarial consulting and accounting services are provided to the retirement program. The TFFR Board of Trustees will select the independent actuary for consulting and actuarial purposes and direct a contract be executed by the Deputy Executive Director/ Chief Retirement Officer.~~

~~Accordingly, the administrative means will be to:~~

1. ~~Have an annual actuarial valuation (July 1 to June 30) performed on the retirement program. The valuation must be performed by an independent actuary who is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems. The valuation must be prepared in accordance with principles of practice prescribed by the Actuarial Standards Board. The calculations must be performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the system.~~

2. ~~Have an actuarial review or audit of TFFR's actuarial valuation performed at least every five years by an independent actuary. The review should include an evaluation by an independent actuary, other than the one who performs the plan's actuarial valuation, for the purposes of expressing an opinion on the reasonableness or accuracy of the actuarial assumptions, actuarial cost methods, valuation results, contribution rates and certifications as described above. If there is a change in actuaries, a full replication of the previous actuarial valuation should be conducted and will serve as an actuarial audit.~~

3. ~~Have an actuarial experience study performed on TFFR every five years. The experience study should include a review of demographic and economic assumptions and compare to actual experience. The study should analyze plan experience relating to assumed rates of mortality, disability, retirement, employment turnover, investment returns and other cost factors.~~

4. ~~Have an asset liability study performed on TFFR every five years. The study should identify the optimal distribution of funds among the various asset classes that offers the highest probability of consistently achieving investment objectives within the confines of a predetermined level of risk. Projected changes in active and retired membership should also be considered.~~

5. ~~Prepare financial statements in accordance with generally accepted accounting principles for defined benefit public pension plans.~~

6. ~~Have a financial audit conducted annually in accordance with generally accepted~~

~~auditing standards (as established by the AICPA) by an independent auditor. Receive an unqualified opinion by the independent auditor regarding the audited financial statements.~~

~~7. Perform internal audits on the retirement program which provide the board with reasonable assurance that TFFR is being administered in compliance with federal and state laws, administrative rules, board policy, and established procedures.~~

~~**Monitoring** (Method, Responsibility, Frequency)~~

- ~~Internal Report~~
  - ~~Disclosure of compliance to the Board through periodic presentations by staff at Board meetings.~~
- ~~External Report~~
  - ~~Disclosure of compliance to the Board through annual audit and actuarial reports.~~

2. Level Income Option

(May be Removed Pending Legislation)
It shall be the policy of the TFFR Board of Trustees to allow members who select the level income retirement option:

1. To level to age 62 or normal retirement age (including any fractional age from age 65 to 67.

2. To combine the level income option with the service retirement options offered (single life annuity, 100% and 50% joint and survivor, 10 and 20 year term certain and life annuity).

3. To reduce a member's retirement benefit the second month following the month the member reaches age 62 or normal retirement age.

4. To apply postretirement legislative benefit increases to the teacher's non-level income monthly retirement benefit.

Section II Program Policies Section Exhibits

Asset Allocation Definitions

Overview of Asset Class Definitions

There are three major asset classes:

1. **Equity**
2. **Debt**
3. **Real Assets** (or Other)

Alternative Investments are often cited as the fourth major asset class, but can frequently be re-classified into one of the other three categories with some exceptions (i.e. total return strategies using debt and equity).

Equity investments represent an ownership claim on the residual assets of a company after paying off debt.

Equities should be segregated into two major sectors, Public and Private, given major differences in liquidity:

1. Public equities are generally highly liquid and *valued on a daily basis* in the financial markets. Examples include common stock (Apple, Coca-Cola or McDonalds), options and futures.
2. Private equities are generally less liquid and often *valued on a less frequent basis* (quarterly). ~~Major PE firms include Apollo, Ares, Bain, Blackstone, Carlyle, Clayton Dubilier & Rice, CVC Capital, EQT, Fortress, KKR, Silver Lake, TPG and Warburg Pincus in addition to Adams Street, BlackRock, Neuberger Berman, Pantheon and Pathway.~~

Public equity markets are often sub-classified by geographic region (U.S., International or Global), market capitalization (Large, Medium or Small), investment style (core, growth or value) and level of economic development (developed or emerging markets). The top U.S. and global equity benchmarks are discussed below.

Five major U.S. equity benchmarks include the **S&P 500, Russell 1000, 2000 and 3000,** and **Dow Jones Industrial Average ("Dow")**. The **S&P 500** is based on the market capitalizations of 500 large companies having common stock listed on the NYSE or NASDAQ. The **Russell 1000** represents the highest-ranking 1,000 stocks in the Russell 3000 Index, and represents about 90% of the total market capitalization of that index. The Russell 1000 has a weighted average market capitalization of over $100 billion with a median of approximately $8 billion. The **Russell 2000 Index** is a small-cap index and represents the bottom 2,000 stocks in the Russell 3000 Index. The Russell 2000 has a weighted average market capitalization of less than $2 billion with a median of less than $1 billion. The Russell 2000 is the most common benchmark for funds that identify themselves as "small-cap", while the **S&P 500** index is used primarily for large capitalization stocks. The **Dow** is a price-weighted measure of 30 U.S. blue-chip companies. **The Dow** covers all industries with the exception of transportation and utilities, which are covered by the Dow Jones Transportation Average and Dow Jones Utility Average. While stock selection is not governed by quantitative rules, a stock typically is added to The Dow only if the company has an excellent reputation, demonstrates sustained growth and is of interest to a large number of investors. Maintaining adequate sector representation within the indices is also a consideration in the selection process.

The **MSCI All Country World Index** (or "ACWI") measures the equity market performance of developed and emerging markets and consists of 47 country indexes comprising 23 developed and 24 emerging market country indexes. The ACWI includes approximately 2,500 large and mid-cap equity securities and covers 85% of the global investable market. The **MSCI ACWI Investible Market Index** (or "ACWI IMI") captures large, mid and small cap securities across 23 developed and 24 emerging market countries with over 8,700 constituents and covering approximately 99% of the global investment opportunity set. ~~The developed market countries are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong,~~

~~Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, UK and US. The emerging market countries are listed below.~~ The **MSCI EAFE Index (Europe, Australasia, Far East)** measures the equity market performance of the developed market countries, excluding the US & Canada. The **MSCI Emerging Markets Index** measures equity market performance of emerging markets and consists of ~~the following~~ 24 countries. ~~: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates.~~

Public equity has historically provided **high investment returns with high volatility and high liquidity when compared to Bonds or Real Assets**. Most investment consultants believe that Private Equity ~~will~~ can provide an even higher investment return than Public Equity, albeit with significant less liquidity and potentially higher volatility.

Debt represents a legal obligation between a borrower and a lender for a stated period of time and rate.

Debt or "Bonds" are classified as fixed or floating depending upon whether the interest rate is derived using a fixed rate (i.e. 5%) or a floating rate (i.e. Prime + 1.00%). Duration risk within fixed income is a major driver of investment risk and return particularly for longer term securities, including U.S. Treasury bonds.

Debt is often sub-classified into investment grade (rated BBB- or better) or non-investment grade (rated less than BBB- or non-rated) or by geographic region (U.S., International, Developed Markets or Emerging Markets). Debt can be issued by governments, agencies or companies and represent general obligations of the issuer or be backed by a specified pool of assets (i.e. mortgage backed securities). Bonds serve to diversify a portfolio by offering **lower volatility** than equities along with a **lower expected return and generally high liquidity**. **Real Assets represent an ownership interest in physical assets** such as real estate, infrastructure (airports, electrical grids, energy pipelines, information technology data centers and systems, shipping ports, toll roads, and water supply and treatment facilities), timberland and certain commodities (gold, oil, wheat). Real assets are expected to provide inflation hedging characteristics in periods of unanticipated inflation and diversify a portfolio consisting of debt and equity.

Alternative Investments can include precious metals, art, antiques, and financial assets such as derivatives, commodities, private equity, distressed debt and hedge funds. Real estate, infrastructure and forestry/timber are also often termed alternative. Alternatives are sometimes used as a tool to reduce overall investment risk through diversification and may offer lower correlation with traditional financial investments such as stocks and bonds, although it may be difficult to determine the current market value of the asset, may be illiquid, purchase and sales costs may be high, and there may be limited historical risk and return data, all of which makes analysis complex.

Asset Class Definitions

Global Equity

Definition

Investment represents an ownership claim on the residual assets of a company after the discharge of all senior claims such as secured and unsecured debt.

Public Equity

Public equity is traded on a national exchange. Includes common stock, preferred stock, convertible to stock, options, warrants, futures and other derivatives on equities or composites of equities, exchange-traded funds and equity-linked notes, units and partnership shares representing ownership interests in an underlying equity investment.

Private Equity

Private equity represents equity or equity linked securities in operating companies that are not publicly traded on a stock exchange.

Types of investment strategies

- *Leveraged buyout (LBO)* – Acquisition of a company with the use of financial leverage
- *Growth capital* – Investment in mature companies looking for capital to expand, restructure, enter new markets
- *Venture capital* – Investment in typically less mature companies, for launch, early development, or expansion
- *Mezzanine* – Subordinated debt/preferred equity used to reduce amount of equity capital required to finance LBOs
- *Distressed* – Equity securities of financially stressed companies
- *Secondary* – Investment in existing private equity assets

Types of structures

- *Direct investment* – Direct purchase of equity securities of a private company
- *Co-investments* – Investments in equity securities of a private company alongside
- the manager of a direct fund
- *Direct fund* – Pool of capital formed to make direct investments
- *Fund-of-funds* – Pool of capital formed to make investments in direct funds

Strategic Role

- High long-term real returns
- Hedge against active (pre-retirement) liabilities
- Private equity enhances total portfolio return as a tradeoff for illiquidity

Characteristics

Public Developed Markets

- Relatively high returns (long-term) as compared to fixed income and real assets
- Relatively high volatility (standard deviation of returns) as compared to fixed income and real assets
- Relatively high liquidity
- Diversification
- Historically, public developed equities exhibit high correlation with private equity and high yield bonds, moderate correlation with investment grade corporate bonds and real assets, and negative correlation with sovereign debt.
- Currency adds to volatility but can be hedged, which mutes the diversification benefits

Public Emerging Markets

- Higher expected returns due to economic growth potential
- Liquidity risk is significant, particularly in frontier markets

- High volatility, particularly in frontier markets
- Historically, public emerging equities exhibit high correlation with high yield bonds, moderate correlation with investment grade corporate bonds and real assets, and negative correlation with sovereign debt.
- FX markets not sufficiently developed to hedge currency risk
- Limited access to markets
- Market information less abundant than for developed markets
- Counterparty risk and settlement delays pronounced in frontier markets

Private Equity

- Illiquid, long-term time horizon (7-12 year closed-end partnerships)
- Quality of the managers selected is the key determinant of success
- High volatility of returns compensated by higher expected returns
- Historically, public emerging equities exhibit high correlation with high yield bonds, moderate correlation with investment grade corporate bonds and real assets, and negative correlation with sovereign debt.
- Encompasses three stages: fundraising, portfolio construction and investment, exit and return realization

Risks

Public Equity

- *Absolute risk* – Possible magnitude of price decline
- *Liability hedging risk* – Risk that assets will not increase when liabilities increase
- *Regulatory risk* – Changes may adversely affect markets
- *Tax risk* – Changes may adversely affect markets
- *Liquidity risk* – Difficulty trading securities under adverse market conditions
- *Firm specific risk* – Unique risks associated with a specific firm
- *Tracking risk* – Magnitude of performance deterioration from a benchmark
- *Time horizon* – Horizon too short to weather cycles
- *Benchmark risk* – Benchmark not appropriate proxy
- *Market risks* – Price decline
- *Currency risk* – Unanticipated changes in exchange rate between two currencies
- *Counterparty risk* – Counterparty does not live up to its contractual obligations

Private Equity

- *Liquidity risk* – Absence of liquidity and appropriate exits could significantly increase time horizon
- *Firm specific risk* – Unique risks associated with a specific firm
- *Leverage risk* – Historical excess use of leverage and current inability to secure financing may adversely affect LBOs
- *Manager selection risk* – Selecting managers that fail to deliver top performance results
- *Diversification risk* – Inability to properly diversify the portfolio by vintage year, industry groups, geography
- *Tax risk* – Changes may adversely affect markets
- *Regulatory risk* – Changes may adversely affect markets
- *Strategy risk* – Continuing applicability of investment strategy in context of capital flows
- *Market risks* – Price decline

Global Fixed Income

Definition

Investment represents a legal obligation between a borrower and the lender with a maturity in excess of one year. Evidence of indebtedness and securities that evidence an ownership interest in debt obligations that are issued, insured, guaranteed by, or based on the credit of the following: companies, governmental entities or agencies, banks and insurance companies. Includes agency and non-agency mortgage-backed securities, collateralized mortgage obligations, commercial mortgage- backed securities, asset-backed securities, private placements, and options, futures or other derivatives on fixed income securities or components of fixed income.

Strategic Role

- Diversification within a multi-asset class, total return portfolio
- Hedge against a long duration accrued liability
- Current income
- Non-U.S. provides hedge against unanticipated domestic inflation and diversification to U.S. assets

Characteristics

- Medium volatility asset class
- Relatively high liquidity
- Broadly diversified by market sector, quality, and maturity
- Historically, developed sovereign debt exhibits low to negative correlation with real assets and negative correlation with equities; investment grade corporate bonds exhibit moderate correlation with equities and low correlation with real assets; high yield exhibits high correlation with equities and moderate correlation with real assets.
- A large currency component exists within international fixed income returns
- Developed markets are extremely liquid. Many issues of less developed markets are also relatively liquid.

Risks

- *Duration risk* – Price volatility from a change in overall interest rates
- *Convexity risk* – Negative convexity is the risk of price declines being greater than the price increase due to interest rates moving equally up versus down
- *Default or credit risk* – The uncertainty surrounding the borrower's ability to repay its obligations
- *Structure risk* – Risk that arises from the options implicit in bonds (like call ability and sinking funds) or the rules that govern cash flow differ from expectations
- *Sector risk* – Risk of holding sectors that are in different proportions than the benchmark
- *Liquidity risk* – Cost of trading in a security which is reflected in the bid-ask spread or the cost of selling due to cash flow needs
- *Reinvestment risk* – The uncertainty surrounding future yield opportunities to invest funds which come available due to call, maturities, or coupon payments
- *Benchmark risk* – Risk of the benchmark being inappropriate
- *Yield curve risk* – Price changes induced by changes in the slope of the yield curve
- *Currency risk* – The risk of currency movements vs. the dollar for each market. Currency may contribute greatly to return and lower correlation.

Global Real Assets

Definition

Investment represents an ownership interest in real return assets that provide inflation hedging characteristics in periods of unanticipated inflation. Includes inflation-linked securities, private or public real estate equity or equity-linked investments, private or public real estate debt, infrastructure, timber, real asset mezzanine debt or equity, non-fixed assets and other opportunistic investments in real assets.

Strategic Role

- Reduces risk of composite multi-asset portfolios through diversification
- Relatively low correlations to traditional asset classes
- Can serve as a possible inflation hedge during periods of high inflation
- Provides an attractive return relative to fixed income asset class in periods of low to moderate inflation
- Infrastructure provides inflation protection as he revenues of the underlying assets are typically linked to CPI
- Potential for high returns in niche opportunities

Characteristics

Real Estate

- *Risk* – Volatility of private real estate falls between publicly-traded debt and publicly-traded equities
- *Returns* – Nominal returns are expected to fall between equities and fixed income
- *Correlation* – Expected to exhibit low to no correlation with government and investment grade corporate bonds, and moderate correlation with high yield and equities.
- *Illiquidity* – Transactions require a significantly longer period to execute than other asset classes
- *Inefficient Market* – Information affecting real estate asset valuation and market trading is not rapidly, accurately, or efficiently reflected or interpreted in its pricing

Infrastructure

- *Long life assets* – Capital intensive assets with 25 to 99 year concessions, match for liability duration
- *Inflation protection* – Revenues typically linked to CPI
- *Monopoly or quasi monopoly* – High barriers to entry due to scale and capital cost
- *Steady and predictable cash flow* – Produce strong and predictable yields
- *Low correlation* – Provides portfolio diversification, low beta; expected to exhibit low to no correlation with fixed income and equities
- *Inelastic demand* – Predictable demand with little volatility, less susceptibility to economic downturns
- *Limited commodity risk* – Not subject to commodity pricing
- *Insensitive to changes in technology* – Low risk of redundancy or technology obsolescence
- Investments are usually illiquid and involve a long (10 to 20 year) holding period

Timberland

- *Return* – Low correlation with other asset classes, returns stem from four distinct sources: biological growth, timber prices, land values and management strategy
- *Income* – Driven almost entirely by the sale of harvested mature trees

- *Correlation* – Expected to exhibit low to no correlation with government and investment grade corporate bonds, and moderate correlation with high yield and equities.
- *Appreciation* – Driven by increased volume and value on timber and appreciation of underlying land
- Categorized by type of land (e.g. plantation, natural forest), type of tree (e.g., hardwood, softwood), country and region

Commodities

- *Real assets* – Raw materials that are the physical inputs of production, relatively homogenous in nature, lending itself to be traded via contracts with standardized terms
- *Inflation protection* – Storable commodities (such as energy) directly related to the intensity of economic activity exhibit positive correlation with unexpected inflation
- *Insurance risk premium* – Commodity futures prices tend to be priced at a discount to spot prices in order to induce speculators to bear volatile commodity price risk that inventory holders and producers wish to lay off
- *Positive event risk* – Surprises that occur in the commodities markets tend to be those that unexpectedly reduce the supply of the commodity to the market, resulting in price spikes
- *Negatively correlated with financial assets* – Unlike stocks and bonds, commodities are not as directly impacted by changes in discount rates as they are by the current supply and demand of the underlying commodity, thus they should be expected to have little or even negative correlation with capital assets.

Risks

Real Estate

- *Property type risks* – Negative changes in demand/supply conditions by property type (e.g., office, industrial, retail, lodging, mixed-use, multi-family)
- *Location risks* – Local market condition relative to the adverse changes surrounding a property, or in discovery of hazardous underlying conditions, such as toxic waste
- *Tenant credit risks* – Failure by a tenant to pay what is contractually owed
- *Physical/functional obsolescence* – Negative influences on buildings due to technological changes, outdated layout and design features, and physical depreciation
- *Interest rate risk* – Higher rates can negatively impact both sales strategies and leveraged properties at refinancing
- *Reinvestment risk* – In a declining rental rate market, cash flow received may not be reinvested at the same level
- *Business cycle risk* – As economies slow down, there may be less demand for space
- *Inflationary risk* – Rent levels may not always keep up with rising operating expense levels
- *Illiquidity* – Inability to effectively liquidate a property into cash
- *Natural disaster risk* – Weather, floods, earthquake
- Regulatory concerns are critical, especially in emerging markets
- Capital and managerial intensive

Infrastructure

- *Leverage* – Deals with leverage between 40% and 80% can transform low risk assets into risky investments. Changes in the credit environment alter refinancing risk.
- *Market inefficiencies* – Competitive auctions lead to overpaying. There is a limited history

and track record in the U.S. infrastructure space.

- *Political and headline risk* – Public acceptance and understanding of infrastructure needs to expand. In addition, the political landscape in every state and municipality differs.
- *Regulatory risk* – Regulated assets are subject to government changes
- *Construction and development* – Project overruns and delays should be shared with construction partners. Volume/demand risk for new developments can vary.
- *Labor issues* – Greenfield projects could generate new jobs while the privatization of brownfield assets could eliminate skilled labor members
- *Asset control* – Stipulations via concession agreements limit some management control (pricing, growth, decision approvals, etc.). Asset control needs to be appropriately priced.
- *Firm specific risk* – Unique risks are associated with specific firm

Timberland

- *Liquidity risk* – Liquidity is thin, marketplace characterized by few buyers and sellers, transactions are complicated and can take many months to execute
- *Valuation risk* – Annual appraisal process can lead to disparities between carrying value and realized sales prices during downturns
- *Physical risk* – Subject to losses from natural and human-caused events such as fire, insect and vermin infestations, disease, inclement weather, and theft
- *Political and regulatory risk* – Environmental regulations can restrain or prohibit timberland management activities
- *Leverage* – Can amplify volatility and potentially lead to an inability to refinance properties or lead to a distressed sale, requires a minimum level of generated income
- *Location risks* – Real estate dispositions may also be impacted by weakness in local residential real estate markets

Commodities

- *Price risk* – Commodities with difficult or non-existent storage situations (heating oil, live cattle, live hogs, copper) coupled with a long-lead time between the production decision and the actual production of the commodity can lead to very volatile spot prices
- *Negative futures roll* – When the future contract's price is at a premium to the spot price, the cost to roll contracts forward is negative: an investor continuously locks in losses from the futures contracts converging to a lower spot price
- *Regulatory risk* – Concerns about the role played by investors in commodity markets could lead to new regulations impacting available investment opportunities, ultimately affecting investors' "license to invest".
- *Leverage* – A commodity futures program that is not fully collateralized (for every desired $1 in
commodity futures exposure, an investor sets aside $1 in cash) can amplify volatility and potentially lead to greater losses
- *Implementation* – Because futures contracts are levered, cash management for the collateral is an important consideration due to the value

Global Alternatives

Definition

Investment has a distinct return/risk factor profile as compared to other specified broad asset class groupings. Examples: Low market exposure/absolute return strategies such as market neutral, and other niche strategies with low asset class beta such as insurance-linked investments, volatility, intellectual property, healthcare royalty, shipping, litigation finance and fine art.

Strategic Role

- More robust diversification achieved through the introduction of non-traditional return driver/risk factors
- Low or negative correlations to other asset classes
- Return profile less dependent on economic growth and interest rates
- Potential for attractive risk-adjusted returns

Characteristics

- *Returns* – Exhibits lower correlations to broader equity and credit markets in periods of market distress
- *Illiquidity* – Transactions may require a longer period to execute than other asset classes
- *Inefficient Market* – Information affecting asset valuation and market trading may not be accurately or efficiently reflected or interpreted in its pricing

Risks

- *Market risk* – Cost of carry on being long volatility
- *Natural disaster risk* – Weather, floods, earthquake affect natural catastrophe-based insurance-linked products
- *Due diligence* – Complicated to evaluate and monitor
- *Illiquidity* – Transactions may require a longer period to execute than other asset classes
- *Implementation* – Complexity of implementation may be an impediment

Governance & Policy Review Committee Charter

PURPOSE

The Governance & Policy Review Committee ("Committee") will assist the Teachers' Fund for Retirement Board (TFFR) to fulfill its responsibilities regarding matters that relate to governing the TFFR program, policies, and identifying and making recommendations to the TFFR Board.

KEY RESPONSIBILITIES

The Governance & Policy Review Committee shall perform all duties as requested or required by the TFFR Board. The Governance & Policy Review Committee will specifically be responsible for the following duties and responsibilities:

1. Advise the TFFR Board about operational strategies relevant to TFFR's governance manual to strengthen the TFFR program and empower Board members to meet their obligations related to sound governance principles and abide by the agency's mission.
2. Advise the TFFR Board about strategies that strive to increase the individual Board member effectiveness and their abilities to work collaboratively with their peers.
3. Review and make recommendations for policies for the governance manual that reflect best practices for overall good governance.
4. As directed by the board, review specific governance concerns and make recommendations for improvement.
5. Request Retirement and Investment Office staff for specific topic training and education for Board members. Make recommendations regarding an orientation process for newly appointed TFFR Board members.

GOVERNANCE COMMITTEE COMPOSITION AND TERM LIMITS

The Governance Committee shall be composed of three members. They will be nominated and approved by a majority vote of the TFFR Board. This is a standing committee with no term limits. The Executive Director will be responsible for meeting preparation.

MEETINGS

The Governance Committee will meet quarterly and hold additional meetings as needed to fulfill its responsibilities as described in this Committee Charter and as called by the Governance Committee Chair. The Governance Committee will elect a Chair and Vice Chair at the first meeting following the July TFFR Board meeting every year or when a vacancy in either position occurs.

AUTHORIZATION AND LIMITATIONS OF POWER

The Governance Committee is established by the TFFR governance manual and has no power or authority to act on behalf of the full board. The Governance Committee will abide by the provisions in the governance manual that pertain to the meetings and actions of the Board.

2023 Legislative Initiatives & Budget Planning

RIO Agency Presentation

NORTH Dakota

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Base Budget & Impact Factors

- Base Budget Amount Included:

- 8,834,720

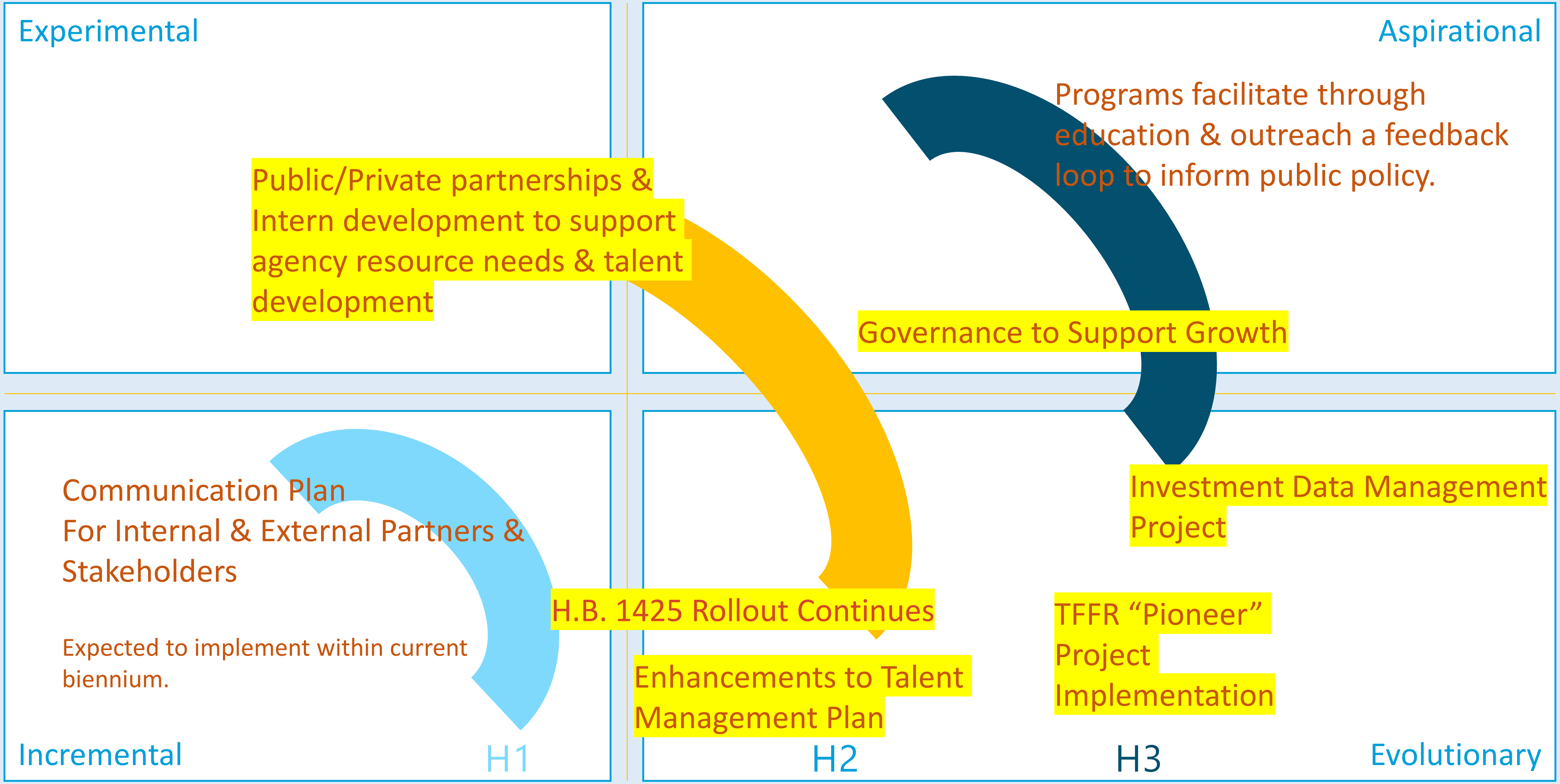
- Impact Factors:

- Agency Re-organization
- Increase in FTE's during Special Legislative Session
- New Hires Travel Cost v. Office Cost
- NDIT Unification
- Strategic Planning/Decision Packages

Retirement and Investments Core Priorities

2022 RIO Strategic Plan Presentation

Horizon-Based Transformation



ORGANIZATION CULTURE – WORKFORCE INITIATIVE

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SALARIES

- ED/CIO SPLIT AND OTHER AGENCY RE-ORGANIZATION INCLUDING ACCOUNTING MANAGER, CFO-COO.
- SUPPORT INTERN PROGRAM

SUPPORT

- 1 ADDITIONAL ADMIN TO SUPPORT 5 NEW FTE'S.
- CURRENTLY HAVE 3 FULL TIME AND 1 TEMP PART-TIME TO SUPPORT 17.

CERTIFICATIONS

- COST OF PROFESSIONAL CERTIFICATIONS THAT ARE EITHER REQUIRED OR ENCOURAGED TO PERFORM DUTIES
- SUPPORT HIGH PERFORMANCE AND GROWTH MINDSET.

INFLATION

- COST OF TRAVEL, TRAINING, AND SUPPORT OF A HYBRID/REMOTE WORKPLACE.

CONTINGENCY

- REQUEST FOR CONTINGENCY FUNDS.

Cost = 667,256

TFFR "PIONEER" PROJECT INITIATIVE

NORTH Dakota
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2022

TEMP STAFF TO ASSIST WITH MANUAL PROCESSES UNTIL NEW SYSTEM LAUNCH.

IMPROVED DEATH AUDITING FUNCTION.

2023

START OF SUBSEQUENT ONGOING SYSTEM MAINTENANCE COSTS.

INCREASED NDIT SUPPORT COSTS

2024

ANTICIPATED LAUNCH IN 4TH QUARTER, 2024.

POST LAUNCH: ROI REALIZED.

Cost =1,602,319

TALENT MANAGEMENT & INTERNAL INVESTMENT INITIATIVE

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2025-2027

As AUM grows increase internal investment management. Decrease cost/increase savings. Add staff and infrastructure.

2023-2025

Internalize investment management of 3 billion AUM. Net savings in millions. Add FTE’s, adjust salaries and implement performance compensation.

2021-2023

Add FTE’s to Support AUM Growth.

Cost =1,671,836

ASSETS UNDER MANAGEMENT GROWTH

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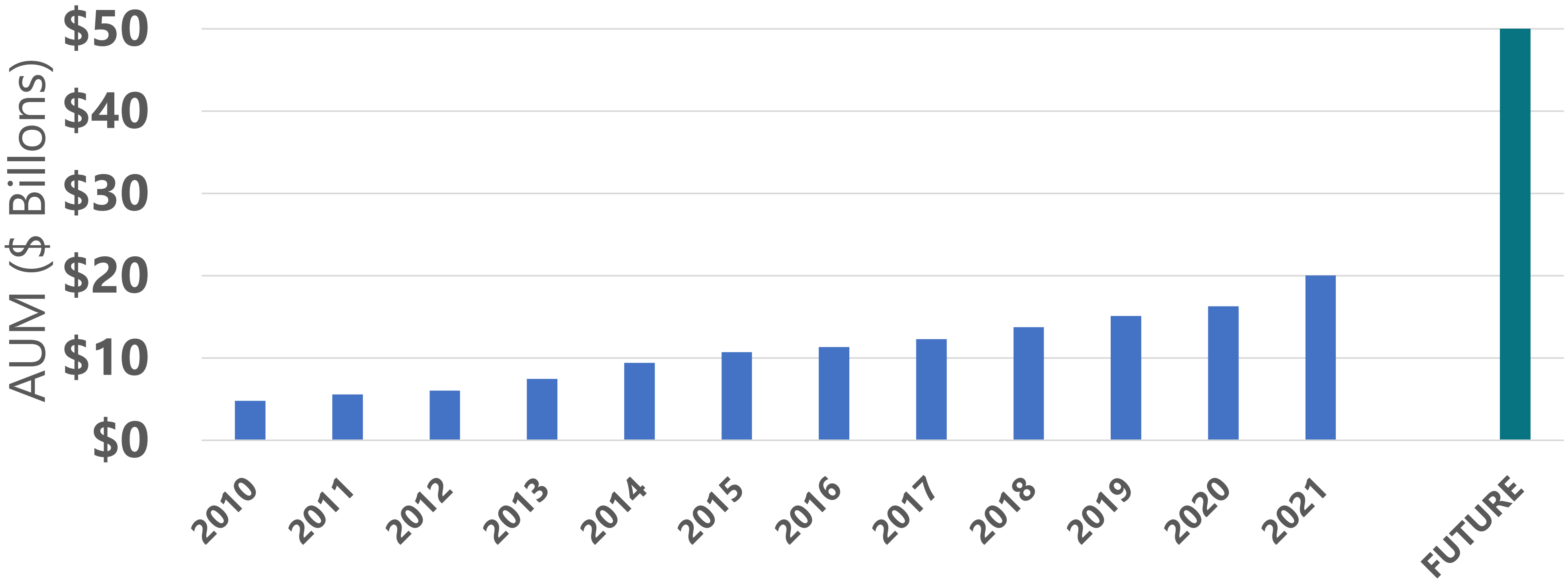
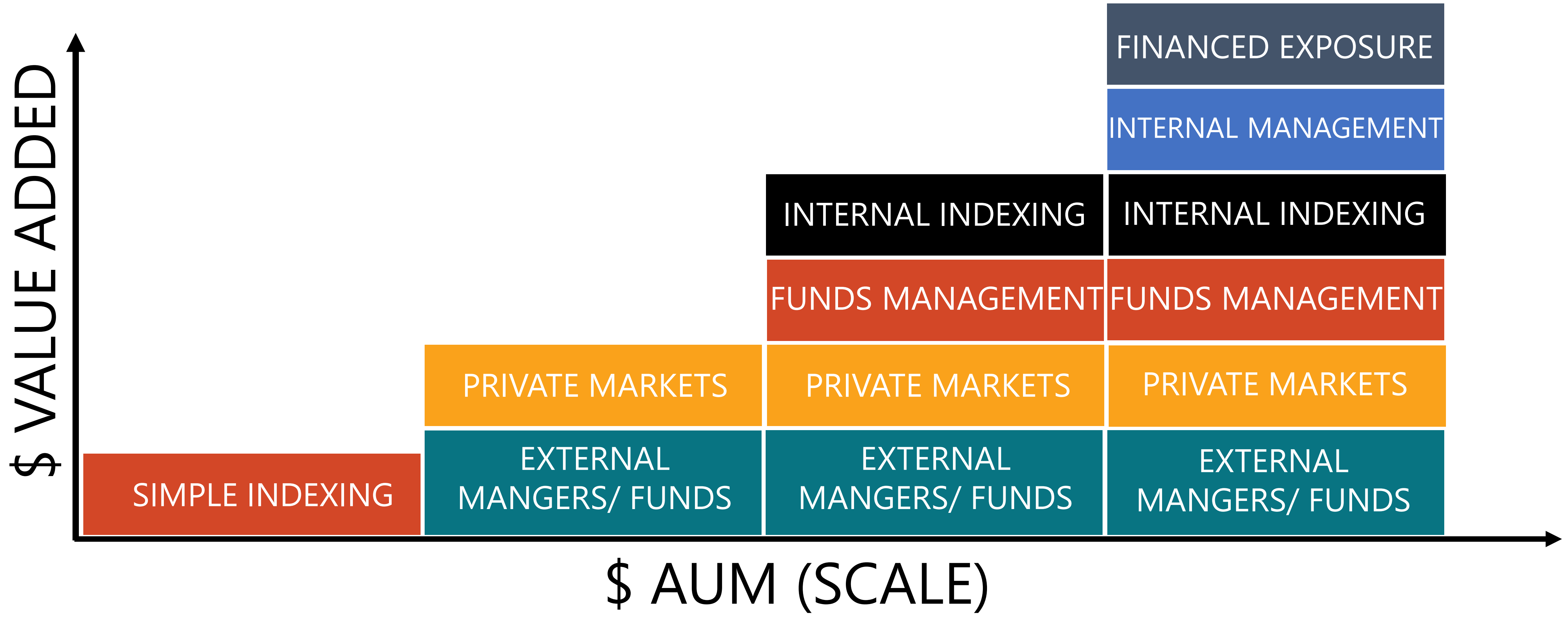
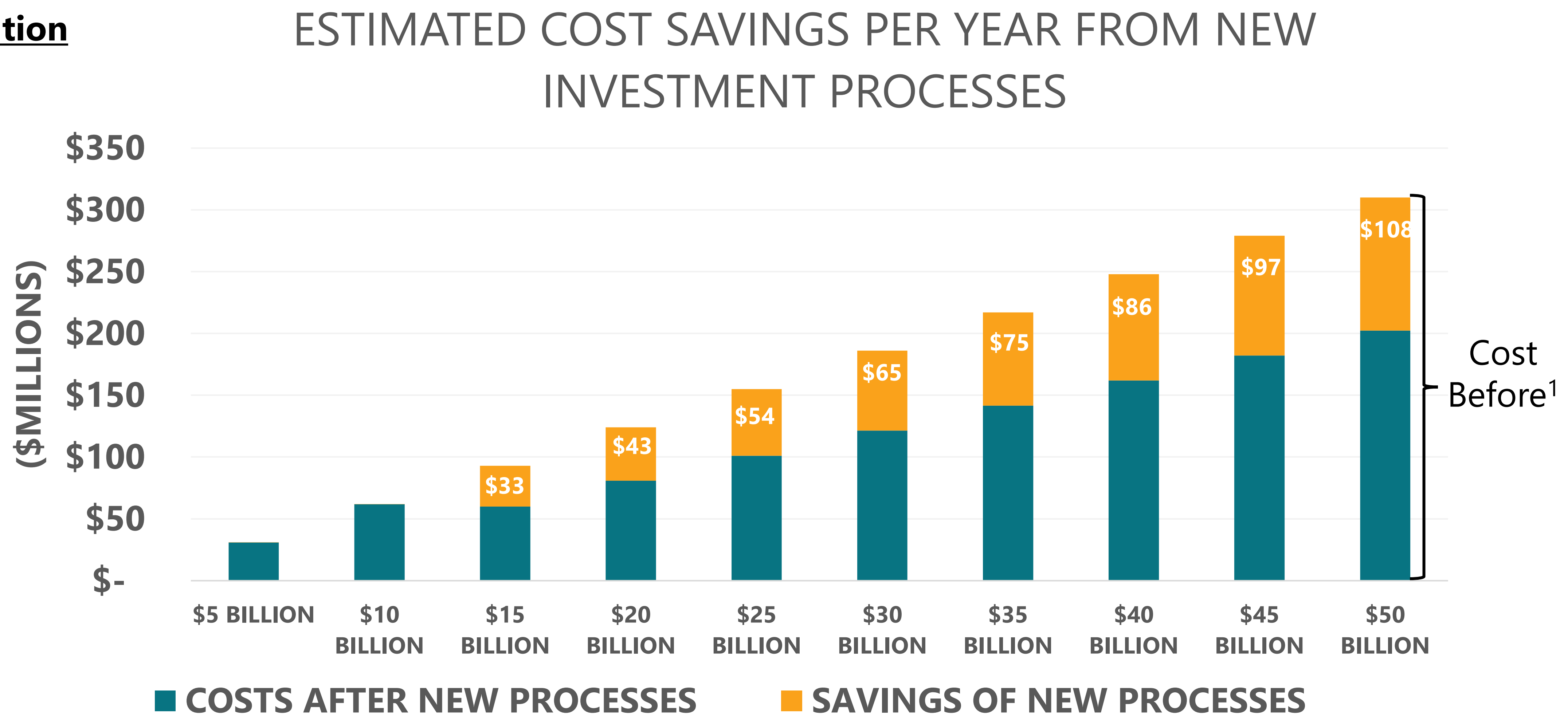


OPPORTUNITY



SIGNIFICANT COST & RETURN SAVINGS CAN BE ACHIEVED WITH EVOLVING INVESTMENT PROCESSES AND INTERNAL MANAGEMENT

Illustration



1. **Estimation:** Assumes $250K cost per investment professional, $300 K for each $5 Billion in AUM for infrastructure, 50% of assets managed internally based on IG FI and Domestic Large Cap equities and nets returns on cash when a liquidity overlay is in place. The mix of internally managed strategies likely would be different in practice when larger AUM is being managed.

RIO Initiatives

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Incremental

To

Evolutionary

- WORKFORCE – ORG CULTURE - CONTINUE
- TFFR "PIONEER" PROJECT - COMMIT
- TALENT MANAGEMENT - EVOLVE

NORTH

Dakota

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MEMORANDUM

TO: **TFFR Board**
FROM: **Denise Weeks, Retirement Program Manager**
DATE: **July 13, 2022**
RE: **Outreach Program Update**

Events completed

- Governors Education Summit – In Person
  - June 9, 2022 – Dickinson
  - TFFR information booth
  - The 6th annual Governor's Summit on Innovative Education inspires innovation and reimagines learning in schools across North Dakota.

Upcoming events

- TFFR Retirement Education Workshop – In-Person
  - July 20, 2022 – Bismarck
  - Speakers to present on health insurance options, Social Security benefits, estate planning, and TFFR benefits
  - 70+ registered
  - ND United to help with marketing this event

- CTE Conference – In-Person
  - August 8-9, 2022 - Bismarck
  - Informational booth
  - TFFR staff to provide retirement benefit estimates and other TFFR information

- Retired Teachers Association Convention – Minot
  - September 14, 2022
  - Denise Weeks and Chad Roberts to present

- TFFR Individual Counseling Sessions - Virtual
  - 45-minute timeslots available July through November
  - Scheduled individually with the two Retirement Programs Specialists Stephanie Starr and Jayme Heick

- TFFR Group Counseling Sessions – In Person/Virtual
  - In person sessions scheduled with 9 school districts in September through November
  - 2 statewide virtual sessions scheduled for all school districts in December

BOARD INFORMATION ONLY. No board action required.

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MEMORANDUM

TO: TFFR Board of Trustees
FROM: SIB Audit Committee
DATE: August 9, 2022
RE: Fiscal Year End Audit Committee Activities Update
July 1, 2021 to June 30, 2022

The Audit Committee is a standing committee of the State Investment Board (SIB) authorized under the SIB Governance Policy B-6, Standing Committees. Its primary function is to assist the SIB in fulfilling its oversight responsibilities of the Retirement and Investment Office (RIO) internal and external audit programs, including the financial reporting process, internal controls, and compliance with laws, regulations, policies, and procedures.

The Audit Committee consists of five members selected by the SIB. Three members of the Audit Committee represent the three groups on the SIB (Teachers' Fund for Retirement (TFFR) Board, Public Employees Retirement System (PERS) Board, and elected and appointed officials). The other two members are selected from outside the SIB, that are both independent and financially literate. Members of the Audit Committee for the 2021 - 2022 fiscal year were:

Yvonne Smith, PERS Board, Chair
Rob Lech, TFFR Board, Vice Chair, Resigned from Audit Committee effective April 22, 2022
Cody Mickelson, TFFR Board, effective April 22, 2022
Jodi Smith, Elected and Appointed Officials, Resigned from Audit Committee effective October 31, 2021
Treasurer Thomas Beadle, Elected and Appointed Officials, effective November 1, 2021
Julie Dahle, External Member
Jon Griffin, External Member

The Audit Committee held four regular meetings and one special meeting during the fiscal year ended June 30, 2022. The meetings occurred: August 11, 2021, October 14, 2021, November 16, 2021, February 16, 2022, and May 10, 2022.

Activities of the Audit Committee during the past year included:

- The Committee approved a July 1, 2021 through June 30, 2022 Internal Audit work plan. Progress was monitored on a quarterly basis. Audit activities included:
    - <u>Executive Limitations Audit</u> was completed. The audit determined the Executive Director's level of compliance with SIB Governance Manual Executive Limitation policies (A-1 through A-11) for the calendar year ending December 31, 2021.
    - <u>State Investment Board Self-Evaluation</u> was administered by Internal Audit. The SIB requested Internal Audit's assistance in administering the self-evaluation and presenting the results. The SIB self-evaluation was presented on February 25, 2022 SIB meeting.
    - <u>SIB Board Governance -</u> The SIB requested the SIB Audit Committee to review and provide education on Board Governance on May 21, 2021. Board Governance is the framework that structures the board and how it operates. Governance includes the Board's responsibilities and organizational well-being. The Audit Committee presented its recommendations to the SIB on November 19, 2021.

- SIB Board Executive Search Committee - Internal Audit has participated in the RFP process to procure an Executive Recruitment Service in a search for a new Executive Director/Chief Investment Officer. The Supervisor of Internal Audit participated in SIB Executive Search Committee meetings and interviews. The Executive Director/Chief Investment Officer resigned from his position June 22, 2021. The Executive Director/Chief Investment Officer position was split at the August 27, 2021 SIB meeting. The Executive Director position was filled in November 2021 and Chief Investment Officer position as filled in December 2021.
- RIO Succession Planning – Internal Audit reviewed the vacated positions to ensure proper documentation of their responsibilities and that all responsibilities were transferred to the new positions developed in the reorganization of RIO. Also, reviewed the risks facing the investment program due to staff turnover. The Succession Planning Phase I was presented on February 16, 2022.
- RIO's Strategic Plan - RIO undertook the development of a comprehensive strategic plan by partnering with other state agencies who are leading such efforts. Internal Audit attended meetings as the strategic plan was an agency effort.
- TFFR Benefit Payment Audit - Internal Audit worked with IT, Retirement Services, and ND Procurement in getting a new death search system. Internal Audit also attended meetings for the Consultant's presentation of their product. PBI was selected as the analytic system to be used for identifying deceased TFFR members and was launched in October 2021.
- TFFR Salary Verification-Participant Data Audit was completed in FY 2021. Internal Audit continued to work with Retirement Services on the recommendations.
- PAS Project – Stage 2 was completed in March 2022. Stage 3 started in April 2022. IA participated in the procurement process in Stage 2 and the kick-off meetings in May 2022.
- Internal Audit worked with staff on updating the Administrative Policy Manual. Policies were written and updated to ensure compliance with state and federal policies. RIO also adopted other federal and state policies as found on the ND State OMB website. This is a continual project.
- RIO's Internal Audit division provided assistance to our external audit partners, CliftonLarsonAllen, LLP (CLA), during the 2020-2021 and the 2021-2022 financial audits of the RIO as well as the GASB 68 Census Data Audits.
- Internal Audit staff continued to pursue networking and professional development opportunities via the IIA's local chapter and the APPFA (Association of Public Pension Fund for Auditors). Staff attended training seminars which covered a variety of topics (Business Continuity, Cyber Threats, Employer Program, Third-Party Risk, and IT refresher classes).

- The Committee received the results of the RIO financial audit for the fiscal year ended June 30, 2021 from independent auditors, CliftonLarsonAllen, LLP. They issued an unmodified "clean" opinion.

- The Committee reviewed the RIO financial audit plan for fiscal year ended June 30, 2022 with independent auditors, CliftonLarsonAllen, LLP. Discussion included scope and approach for the audit to ensure complete coverage of financial information and GASB 68 Audit.

- The Committee adopted a detailed audit work plan and budgeted hours for fiscal year July 1, 2022 to June 30, 2023.

The above activities support the Committee's fulfillment of its oversight responsibilities. Please inform the Committee if there are special audits or activities the Board would like to have reviewed.

BOARD ACTION REQUESTED: Board Acceptance.

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MEMORANDUM

TO: **TFFR Board of Trustees**
FROM: **Chad R. Roberts, DED/CRO**
DATE: **September 19, 2022**
RE: **NDIT Technology Update for Retirement and Investment Office**

Ms. LuAnn Thiel, NDIT Customer Success Manager assigned to RIO, will present an update to the committee as to the initiatives and changes at RIO as they relate to technology and the NDIT unification project.

Security:

IT Security

Tools and Technologies
Security benefits to unification for RIO is critical coverage of two security toolsets:

- **Cortex XDR** was installed on most devices prior to unification, providing real-time alerting on suspicious or malicious behavior, along with artificial intelligence and user behavior analytics. However, RIO desktop staff had to manually push out important updates and upgrades, which is crucial for zero-day vulnerabilities. NDIT now pushes out these updates automatically to RIO devices, saving deployment time and ensuring all devices have the latest protections.

- **Tenable**, prior to unification, was installed on very few devices. Tenable scans workstations twice a week and all NDIT servers weekly. The scans look for software that is out-of-date or any other weaknesses within installed software products. Giving NDIT security analysts a view into what is installed on RIO devices can allow NDIT to quickly move on remediating critical flaws discovered in the environment. The software produces a monthly report that is sent to NDIT Desktop to remediate other weaknesses discovered.

- **Third-Party Risk Management**, ensures vendors that RIO selects to store or access State data for business initiatives and applications undergo a formal risk assessment to identify vendor weaknesses in their security controls.

Additional people support for RIO includes:

- An assigned **Information Security Officer**, who is responsible for reporting quarterly security reports to Executive staff (this part of the program is being developed) and providing a security resource to be the main point-of-contact for security-related audits, questions, and concerns. NDIT security will interface with this individual so RIO does not have to respond to the entire security team, but to only this dedicated individual.

- **Business Resilience Support** – NDIT is building a strong business resilience program, to assist RIO and other agencies with ensuring disaster recovery plans are in place for applications cloud- and state-hosted. This program will also assist RIO with numerous findings found in an independent assessment performed prior to unification that found weaknesses with a Business Continuity and Continuity of Operations Plan.

Desktop/Hardware:

- Set up RIO to use 64-bit Office automatically without manually having to touch their computers to upgrade from the standalone version
- Automatically uninstall Silverlight which has been out of support since last year
- Moved RIO to Intune which allows us to manage 3rd party patching and Windows Updates
- Replaced more than 12 machines for RIO
- RIO Staff is now submitting their own Desktop Support tickets via Service Now to NDIT desktop team.

Business Application team:

Upgrades

- Pension Administration System Database was upgraded from Oracle 12.2 to 19 with it being successfully completed on test system with Production due soon.
- Microsoft Dynamics Great Plains to latest software version (18.4) as well as the database to SQL Server 2019

TFFR Pension Administration System Project – Replace legacy CPAS System with modern solution

- Review Requirement, Technical and Functional requirements (about 1,200 requirements total)
- Attend and participate in meetings to provide input as needed and upload necessary documentation requested by Vendor.
- Data Conversion- Request backups to be taken by NDIT Database team and Review legacy data and list table names to allow Vendor to better understand RIO's data structure and where data is located

Daily, weekly, monthly, yearly tasks completed as part of our support to RIO

- Calendar year-end (1099R, Tax tables, etc.), Fiscal year-end (Actuary files, External Auditor requests, Reports, etc.)

NDIT Unification:

A significant organization change effort, referred to as NDIT Unification and authorized by the 2019 Legislature, involved the transfer of IT FTEs from 5 agencies to NDIT, with the intent to align IT staff, IT processes and technologies into an NDIT Shared Service. The FTEs from an additional 10 agencies were transferred during the 2021 Legislature. The Retirement and Investment Office (RIO) recognized the benefits for the agency and their IT staff and as such, was included as one of these 10 agencies. To ensure the best outcome, the unification process included both a high level and detail workforce analysis effort. The result enabled an understanding of the work performed and best fit for team alignment of each of the staff. To optimize overall services, work efforts and responsibilities of the positions were analyzed, and plans made to transition the respective work to teams covering that scope. The two positions from RIO were transferred to NDIT as of July 1, 2021, and aligned under the Business Application Support team, which is part of the Technology vertical of NDIT. This team was formed to support the business applications for agencies, with the team members serving as subject matter experts and providing key activities to include daily operations support, performing routine system maintenance by coordinating with vendors or other IT teams on system upgrades and patching, providing application support to end users and working on project delivery efforts. Activities such as, desktop support, hardware procurement and deployments, cell phone support and other related activities were transitioned from these positions to the NDIT End User Collaboration team. The functional team scope enables each team in NDIT to build skills, expertise, resource depth and staff backups, standardized processes, efficiencies, knowledge sharing and focused services. As a result, RIO's leadership and team members have benefitted by having access to an increased level and breadth of IT expertise, IT services and resources. The two transferred positions are part of a team of their peers and supervised by a Senior IT leader; their responsibilities are focused to provide support for RIO applications. The NDIT End User Collaboration team manages and supports RIOs devices, an Information Security Officer (ISO) from NDIT's Security team collaborates with RIO leadership and supports RIO's cybersecurity and other related efforts. A Customer Success Manager (CSM) is assigned to RIO and works with RIO leadership team to enhance and increase the partnership between NDIT and RIO, assist with IT strategy, and needs and serves as a liaison to elevate concerns and challenges if needed. Specific results this past year are outlined in the respective sections.

Initially it was anticipated through projections that the cost of IT support for RIO would decrease almost immediately because of unification. Presently RIO is experiencing increased costs under unification due to the pension administration project and the significant amount of IT personnel hours involved in that project. However, there are significant reductions in the cost of IT support for RIO after the implementation in 4th QTR 2024. These reductions will be due to both the sunsetting of the implementation phase and the automation of many processes that IT presently support through manual processes.

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MEMORANDUM

TO: TFFR Board of Trustees
FROM: Chad R. Roberts, DED/CRO
DATE: September 14, 2022
RE: TFFR Ends Report 4th QTR 2021 ending June 30, 2021

This report highlights exceptions to the normal operating conditions of the TFFR program for the period spanning April 1, 202 through June 30, 2021.

- The position of DED/CRO was filled in the 4th quarter. The position was offered to Chad Roberts and accepted. A planned start date of July 11th, 2022 was established.
- The PAS project began with a "kick-off" meeting in May. Technical requirements meetings began in June with an estimated completion date for that phase of meetings in late August 2022.
- The TFFR staff began an internal book club focusing on the "Crucial Conversations" training received prior in the year. The book club is a discussion on the text and what the growth areas and takeaways are for the workgroup.
- The Retirement Services Manager attended the PRISM (Public Retirement Information Systems Management) Conference.
- TFFR hosted the first of the new "Info Mixer" outreach sessions for business managers in April. These sessions are designed to help inform business managers of changes in procedures, problem areas identified during compliance review and address any questions or concerns the business managers identify. Two sessions were held, one on April 27th and one on April 28th. The attendance by business managers was thirty-one and nineteen respectively.

BOARD ACTION REQUESTED: Board Acceptance.

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MEMORANDUM

TO: TFFR Board
FROM: Jan Murtha, Executive Director
DATE: September 14, 2022
RE: Executive Limitations/Staff Relations

Ms. Murtha will provide a verbal update at the meeting on agency efforts to address current and future organizational risk through strategic planning. Including updates on the following topics:

1. **Retirements/Resignations/FTE's/Temporary Assistance**:

Employee Title	Status
Fiscal Management Specialist	Temporary/Part-Time. Started 8-2-22.
Chief Risk Officer	Posted 8-11-22, closes 9-29-22.
Investment #1	Posted in June, closed 6/27/22. Interviews scheduled.
Investment #2	Posted in June, closed 6/27/22. Interviews scheduled.
Investment #3	Posted in June, closed 6/29/22. Interviews scheduled.
Investment #4	Posted in June, closed 7/5/22. Interviews pending.
Communications/Outreach Director	Posted 8-11-22. Closed 8-28-22. Interviews Scheduled.
Accounting Intern	Posted 9-2-22. Closes 9-19-22.

* RIO prevailed in appealing the classification of the CFO-COO position to a Grade 109.

2. **Current Project Activities/Initiatives:**

- **Legacy Fund Asset Allocation Study –** RVK continues its work on the Legacy Fund Asset Allocation Study and provided preliminary considerations/recommendations to the Advisory Board on June 30, 2022. Another meeting is anticipated in October
- **TFFR PAS Project** (hereinafter TFFR "Pioneer Project")– The TFFR Pioneer Project continues with implementation consistent with the project plan. The amount of time spent on the project by various staff members currently varies from 5 to 25 hours or more per week.
- **Northern Trust Initiative** – In an effort to enhance the infrastructure for the investment program the Investment and Fiscal teams are leading an initiative to coordinate with Northern Trust for additional functionality/capabilities.
- **Board Member ND.gov Accounts**: State email accounts have been created for all SIB, TFFR, and committee members that are non-state employees (except for the new investment committee which is in progress). All affected Board and committee members, except as noted, have been contacted. Board/committee materials will be delivered to nd.gov accounts. RIO's fiscal team members will also be contacting affected Board and committee members to schedule a demonstration of the Peoplesoft function associated with the nd.gov accounts.

3. **End of Fiscal Year Close-out**

All agency divisions have participated in various aspects of end of fiscal year close-out including external auditor coordination during the month of August.

4. **RIO Board & Committee Presentations – September 1 through October 14, 2022**

   Staff provided or is scheduled to provide the following presentations to Boards and Committees during the above referenced time period.

   - **TFFR GPR Committee – 9/7/22**
   - **Legacy Fund Earnings Committee – 9/22/22**
   - **SIB GPR Committee – 9/21/22**
   - **Legacy Fund Earnings Committee – 9/22/22**
   - **TFFR – 9/22/22**
   - **SIB – 9/23/22**
   - **SIB Securities Litigation Committee 9/27/22**
   - **SIB Investment Committee – 10/7/22**
   - **Legacy & Budget Stabilization Fund Advisory Board – Tentative Week of 10/10/22.**

BOARD ACTION REQUESTED: Board Acceptance.

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MEMORANDUM

TO: **TFFR Board of Trustees**
FROM: **Chad Roberts, DED/CRO**
DATE: **September 16, 2022**
RE: **September 2022 Board Reading Materials**

Included in this packet are five articles related to cybersecurity in the realm of pension administration plans and governance considerations. The package contains articles with examples of data breaches of pension systems as well as recommendations and best practices for reducing those risks from both a practice and governance standpoint.

K-12 EDUCATION

Cyber Intruder Accesses Missouri Teacher Pension Fund

Unrelated to the security flaw recently discovered in a state website, an unauthorized person last week accessed the Public School and Education Employee Retirement Systems of Missouri, possibly exposing personal data.

October 19, 2021 • Kurt Erickson, St. Louis Post-Dispatch

(TNS) — The pension fund serving teachers and other public school employees in Missouri experienced a data security incident last month.

…ording to an Oct. 15 notification from the Public School and Education Employee …irement Systems of Missouri, the incident occurred on Sept. 11 when an employee of the system's email account was accessed by an unauthorized individual.

"The impacted email account was quickly disabled. The unauthorized individual did not gain access to PSRS/PEERS' internal operating system," the notification said.

The pension program, which serves over 128,000 active members and 100,000 retirees and their beneficiaries, is in the process of identifying affected individuals, properly notifying those individuals and reviewing security protocols to prevent incidents of this type in the future.

"The security of our members' information is the highest priority for us," said PSRS/PEERS Executive Director Dearld Snider. "We deeply regret this incident and any inconvenience it may cause our members."

Further details were not immediately available.

The notification was issued on the same day Gov. Mike Parson lashed out at the Post-Dispatch after the newspaper reported a separate, unrelated data flaw at the state's Department of Elementary and Secondary Education.

In that incident, the newspaper found that Social Security numbers of school teachers, administrators and counselors across Missouri were vulnerable to public exposure due to programming shortcomings on DESE's website.

The vulnerability was discovered in a web application that allowed the public to search teacher certifications and credentials. The department removed the affected pages from [illegible]ebsite Tuesday after being notified of the problem by the Post-Dispatch.

Rather than thank the newspaper for discovering the vulnerability and giving the state the opportunity to fix the flaw, Parson called the newspaper's work "hacking" and called for a criminal investigation and a possible civil lawsuit.

In the pension incident, letters were mailed on Thursday, Oct. 14, to individuals who may have been affected. Included in the letter are details and activation codes for free 24-month membership in a credit monitoring service.

"We encourage anyone who receives a letter to take advantage of this free service," the pension system said.

PSRS/PEERS also has a dedicated telephone number with individuals trained to address questions about the incident. The phone number is 888-391-6964.

It is unclear whether DESE has made credit monitoring available to the more than 100,000 teachers affected by the security flaw.

DESE spokeswoman Mallory McGowin last week pointed members of the media to a press release and Parson's press conference when asked if it would be offered. Neither of those specifically mentioned free credit monitoring as a possibility.

"That is the extent of the comment I can provide for now due to the ongoing investigation," McGowin said.

In a letter sent Friday, Sen. Doug Beck, D-Affton, called on Missouri Commissioner of Education Margie Vandeven to notify him of what steps the department is taking to protect teachers from identity theft.

"When similar breaches occur in the private sector, the Federal Trade Commission recommends 'offering at least a year of free credit monitoring or other support ... particularly if financial information or Social Security numbers were exposed,'" he wrote.

Meanwhile, Auditor Nicole Galloway on Monday issued a report summarizing the most common cybersecurity risks found by her audits of local governments and courts.

"When security controls are inadequate — or even non-existent — electronic data can be put at great risk," Galloway said. "Local governments, courts and school districts face the same cybersecurity challenges as businesses, except that it's taxpayer resources that are put in danger of being lost, misused or stolen. There are proactive measures public agencies can take, and my office has provided several recommendations for better protection."

Among common issues found by the audits were access problems, in which former employees did not have their access to public systems removed promptly.

She also found system administrators were not requiring users to change their passwords periodically or were sharing passwords.

Other issues include security controls, backup and recovery issues and data management.

Tags: Cybersecurity, K-12, Education

Content from Verizon

1 **Tackling the Challenges of Education Sustainability**

JUSTICE AND PUBLIC SAFETY

San Francisco Pension Data Breach May Have Exposed Bank Info

The San Francisco Employees' Retirement System, the city workers' pension fund, reported a data breach affecting around 74,000 members, and the data may have included some sensitive information.

June 04, 2020 • Roland Li, San Francisco Chronicle

Shutterstock_deepadesigns

(TNS) — The San Francisco Employees' Retirement System, the city workers' pension fund, reported a data breach affecting around 74,000 members.

pension system's vendor, 10up Inc., said an outside party accessed a test data server with members' information on Feb. 24. The server was closed and 10up Inc. said there was no evidence information was removed, but could not confirm whether the data was viewed or copied.

The data, which was last updated in Aug. 29, 2018, may have included first names, home addresses, dates of birth, designated beneficiary information, and SFERS website user names and passwords, the fund revealed Tuesday. Retired pension members may have had 1099-R tax form information and bank routing numbers exposed.

"Your personal financial information may be misused," the pension fund said.

Social Security numbers and bank routing numbers were not included, SFERS said.

nvestigation is ongoing and all members are required to reset their passwords.

“The San Francisco Employee’s Retirement System breach is a good reminder that even applications on test systems need to be secured against threats, whether they are internal — bad actors in the organization and its partners — or external, coming from hackers trying to exploit vulnerabilities,” Jayant Shukla, co-founder of K2 Cyber Security in San Jose, said in a statement. “Vulnerabilities, misconfigured servers, and misused credentials are among the top reasons systems get breached.”

The breach occurred shortly before another city agency, the San Francisco International Airport, reported hacks of SFOConstruction.com and SFOConnect.com, two websites used by suppliers, in March. The airport said login information may have been taken.

Pensions&Investments

August 06, 2021 08:32 AM

Texas Employees beefs up cybersecurity after attack on retiree accounts

CHRISTINE WILLIAMSON

Bloomberg

Texas Employees alerted state and federal law enforcement agencies to a cyberfraud attack on retiree accounts, which led to convictions.

Using the personal information of a handful of retirees of Austin-based Employees Retirement System of Texas, two men set up fake accounts on the $33.9 billion plan's internet portal to reroute nearly $11,000 in annuity payments, buying and shipping used cars abroad, among other things.

That amount could have increased to a total of $131,461, had their efforts not been detected in 2017, federal charging documents show.

The story of the pair's money-laundering scheme closed its final chapter late July, when the second of two conspirators was sentenced to eight years in prison and ordered to repay nearly $976,000 to multiple victims, including Texas Employees' defined benefit plan.

Cybersecurity experts say the actions of Olumide Bankole Morakinyo, a Nigerian citizen residing in Canada, and his New Hampshire-based co-conspirator, Lukman Shina Aminu, shine a bright light on the importance of vigilance among plan sponsors.

Asset owners are on cyberthieves radar, sources said.

"Pension funds are a very desirable target for the bad guys because of all the personal information they have stored online, the amount of money they manage and (the fact that) a lot of funds are fairly small enterprises," said Steven J. Ross, senior consultant at Funston Advisory Group LLC, Bloomfield, Mich., a governance consultant.

"A thousand intrusions a day is not uncommon," Mr. Ross added.

According to court documents, Mr. Morakinyo pleaded guilty to conspiracy to commit money laundering.

During his July 28 sentencing hearing in U.S. District Court in Austin, Judge Robert Pitman ordered that Mr. Morakinyo serve three years of supervised release in addition to prison sentence and pay restitution to victims of his fraud scheme, according to a news release from the Department of Justice.

Mr. Aminu, charged in a second indictment, was sentenced Dec. 18, 2019, to a little more than four years in prison, the release said.

Mr. Morakinyo set up unauthorized accounts for ERS participants via the system's internet portal and used their personal identification information to make changes to their accounts. By using bank deposit information on file in the internet portal, the men rerouted annuity payments to debit cards, the Justice Department release said.

Mr. Aminu controlled the debit cards, which were used for cash withdrawals, transfers, deposits and money orders for personal expenses on Mr. Morakinyo's orders, the DOJ said.

Money on the debit cards also was utilized to buy used vehicles that were shipped to Nigeria and the West African nation of Benin for resale, according to the release.

"With these international automobile transactions, (Mr.) Morakinyo and his conspirators laundered the fraud proceeds by concealing the source of the funds and making the money appear to be legitimate income," the DOJ said in the release.

Texas Employees staffers first detected the unauthorized attempts to access retirees' accounts in October 2017 and contacted the Texas Department of Public Safety to report the suspicious activity, which appeared to be criminal in nature, system spokeswoman Mary Jane Wardlow said in an email.

A total of $10,605 was stolen from four retirees receiving annuity payments from Texas Employees' defined benefit plan as part of a money-laundering scheme, Ms. Wardlow said.

Mr. Morakinyo breached Texas Employees' internet portal and created 30 accounts for retirees on ERS' internet portal and changed the bank accounts for 26 of those people with a potential loss of $131,461, according to a July 19, 2019, criminal complaint.

Ms. Wardlow stressed that money was stolen from only four accounts.

In addition to working with the Texas Department of Public Safety, pension fund staff also worked closely with the Texas Rangers, a division of DPS, as they began the investigation that ultimately led to the arrests and convictions of the two defendants, Ms. Wardlow said.

During the investigation, Ms. Wardlow said the Texas Rangers learned that Messrs. Morakinyo and Aminu had obtained information regarding ERS retirees from sources not related to ERS.

The defendants then used that information to gain access to the retirees' accounts, she said.

The pension system reimbursed the four retirees whose annuity payments were redirected and offered credit monitoring to annuitants whose accounts could have been impacted by the defendants' conduct, Ms. Wardlow said.

"ERS also has taken steps to enhance already robust security features," but Ms. Wardlow declined to provide more information, stressing, "We can't provide additional details related to cybersecurity due to potential risks associated with the disclosure of cybersecurity information."

"ERS applauds the Texas Rangers, the FBI and the U.S. attorney' office for their excellent work in this matter. The Texas Rangers swiftly commenced a thorough and effective investigation that helped prevent ERS retirees from suffering more substantial loses," Ms. Wardlow said.

The cyberfraud experienced by Texas Employees fund is much less common now, four years after the incident, than it once was, said Timothy B. Rouse, executive director of SPARK Institute Inc., Simford, Conn., in an interview.

Mr. Rouse distinguished between cyberfraud of the type the Texas Employees fund suffered and cyberattacks.

Historically, most cyberfraud was perpetrated by family members of plan participants, Mr. Rouse said, noting that there was "an alarming spike in non-family related fraud about three or four years ago," around the same time of the attack on the Texas fund took place.

SPARK set up a fraud committee about two years ago and developed 13 recommendations about how to prevent fraud, which Mr. Rouse said boiled down to participant and asset owner education; intelligence gathering and sharing; and industry-best fraud-protection practices for money managers, asset owners and record keepers.

The effort seems to have worked well as systems and users have become more sophisticated and protective through the use of multifactor authentication, biometrics and the use of IP addresses, he said, noting, "It's very infrequent to see cyberfraud these days."

Cyberattacks remain relentless, but Mr. Rouse said many record keepers, money managers, asset owners have added much more protection against these kinds of attacks with the use of multifactor authentication, Internet Protocol addresses and biometrics.

Cybersecurity is becoming a high priority for investment staff and boards of trustees of institutional investors given the very high rate of attacks, sources said.

"Cybersecurity is top of mind for asset owners. There is a very high level of interest from boards of trustees to include cybersecurity as a governance issue," said Frederick "Rick" Funston, managing partner and CEO of Funston Advisory Services, in the same interview with Mr. Ross.

Mr. Funston said many pension funds now are relying on outsourced vendors to handle their cybersecurity, noting, "The whole supply chain of a pension fund can be impacted by cyberattacks and can benefit from the heft that specialist vendors offer."

RELATED ARTICLES

Labor Department investigators want info on plan cybersecurity practices, policies

DOL guidance welcomed but some want it to go further

DOL issues cybersecurity best-practice guidance

Inline Play

Source URL:

Institute and Faculty of Actuaries

Pension scheme cyber risk

1. Introduction

This paper seeks to address the following:

- the key cyber risks faced by pension schemes;
- who is responsible for managing these risks; whilst schemes typically outsource the day to day running to third parties, the trustees or the employer will ultimately be responsible;
- how these risks may be managed.

For this paper we are focusing on deliberate acts, rather than the accidental loss of data e.g. through loss of data files[1], though the implications of this may be similar to cyber data theft, nor does it cover other inadvertent breaches of data protection legislation.

2. What are the key risks faced by pension scheme?

To identify the key risks, it's important to understand what assets could be at risk from cyber criminals. As well as billions of pounds of assets, with millions moving around regularly from member to scheme bank accounts, employers and fund managers, pension schemes have an abundance of member data which are also attractive assets for a criminal. In addition, for pension scheme sponsors, there is the added risk of reputational damage from their pension scheme being impacted by a cyber-attack, which could also increase scheme deficits.

2.1 Ransomware attacks

These involve cyber criminals encrypting scheme data and demanding a ransom to unlock this. They could do this by tricking third party administrator (TPA) staff into downloading malware as part of an e-mail. However, the 2017 WannaCry ransomware attack infected computers automatically without user interaction, exploiting weaknesses in Microsoft Windows operating systems which were either unsupported or not updated for security patches. There is anecdotal evidence that at least one TPA has already been affected by a ransomware attack.

For many, it may be possible to recreate data from backs-ups but even this would involve some disruption to the operation of the scheme and additional costs due to the need to re-process transactions from the back-up date.

[1] One example of this is Zurich Insurance who lost a back-up tape containing 46,000 customer records and were fined £2,275,000 by the FSA as a result – see https://www.fca.org.uk/news/press-releases/fsa-fines-zurich-insurance-%C2%A32275000-following-loss-46000-policy-holders-personal

There could also be fines under data protection legislation if the attack succeeded due to failings on the part of the scheme or service providers e.g. failure to apply software patches or running unsupported software[2].

Unfortunately, ransomware attacks are increasingly infecting back-ups as well, so in some cases, the scheme and/or their service providers may have to pay a ransom to unlock data. In the worst case, there have been incidents outside the pensions sphere where the ransom was paid but the encryption key was unable to unlock encrypted data, which was lost entirely. This would have catastrophic impacts on scheme administration with scheme pensions unable to be paid, members unable to take their benefits or change their investment choices and/or create delays with the movements of money such as the investment of member and/or employer contributions.

2.2 Data theft

Pension schemes are exposed to the theft of scheme data. This could follow a similar initial route to ransomware with staff inadvertently downloading malware, perhaps through e-mail attachments. Data theft attacks vary in sophistication. At one end, there have been instances of teenagers stealing data from major firms using generic hacking tools downloaded from the dark web. At the other end of the scale, Advanced Persistent Threat (APT) attacks might involve professional hackers patiently probing systems over a year or more, exploiting any success to gain access to multiple systems, stealing data repeatedly and then covering tracks such that firms may be unaware data has been stolen.

There have been numerous examples of major data thefts over the years including Yahoo! and Equifax[3]. As well as the invasion of privacy, stolen bank and other details could be used to defraud members and other beneficiaries e.g. through fraudulent loan applications. Pension scheme data is quite valuable for fraudsters who may use stolen data to identify members to target for pension scams, or other forms of identity theft. There is anecdotal evidence of UK pension scheme data being sold on the dark web.

Data theft may give rise to remediation costs to address breaches; a need to put in place credit monitoring for affected members to prevent stolen data being used to defraud these; compensation for fraud and/or for distress caused; and regulatory fines for any deficiencies on controls which might have prevented theft. Note that data stolen could include records of past as well as current members – a breach of the US health insurer Anthem resulted in nearly 80 million records being stolen, half of which related to historic customers. In assessing potential exposure, schemes should consider legacy as well as current records, and hold records for no longer than is necessary.

Post-Brexit, data protection breaches come under the UK General Data Protection Regulation (UK-GDPR), which is broadly similar to the EU's GDPR[4], and which amongst other things give the Information Commissioners Office (ICO) the power to levy fines of up to 4% of turnover or €20m.

While it may seem perverse to levy a fine on a scheme, reducing assets available to support member benefits, it should be noted that although the ICO has not fined a scheme in recent times, it has fined a number of charities[5] so trustees should not assume they won't be fined.

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[2] The May 2017 WannaCry ransomware attack exploited a vulnerability that should have been closed off if those affected with supported software had applied a Microsoft patch released in March – see https://en.wikipedia.org/wiki/WannaCry_ransomware_attack

[3] https://en.wikipedia.org/wiki/Data_breach

[4] For more details, see for example: https://www.crystalriskconsulting.co.uk/docs/GDPR-Briefing-Note-Q4-2017-v3a-CRC-Version.pdf

[5] https://ico.org.uk/about-the-ico/news-and-events/news-and-blogs/2017/04/ico-fines-eleven-more-charities/ - details of recent ICO fines can be found at: https://ico.org.uk/action-weve-taken/enforcement/

2.3 Cyber theft and fraud

Cyber risk encompasses not just theft of data but also of assets. There are many ways they could do this. For instance, cyber criminals could hack pension scheme systems to re-direct beneficiary payments. Alternatively, they could create fraudulent transfers of funds. A spectacular example of this was the cyber-attack which compromised the Bangladesh Central Bank SWIFT payment system resulting in the fraudulent transfers of over US$100m[6]. For pension schemes, there's already anecdotal evidence that within days of the mandatory requirement for publicly publishing the scheme's Statement of Investment Principles, this information and trustee signatures are being used to facilitate fraudulent disinvestment attempts.

2.3.1 E-mail spoofing

This is a variation of cyber fraud involving cyber criminals impersonating e-mails to de-fraud schemes and their stakeholders. For instance, a cyber-criminal could send an e-mail to a sponsor, purportedly from the trustees, asking for a fraudulent invoice to be paid or to change a third-party provider’s bank details. Alternatively, a fraudster could impersonate a member about to retire, asking by e-mail for the money to be paid to the fraudsters account.

2.4 Distributed denial of service (DDOS)

DDOS attacks involve criminals hijacking multiple computers to flood host servers with superfluous traffic in a bid to overload systems and deny internet service. Increasingly, the Internet of Things is being exploited with smart fridges and other applications used to facilitate DDOS attacks, increasing the volume of traffic that can be directed by criminals. Even if a pension scheme is not the intended target, if it shares a host with a target it could find it online service offering compromised. Whilst typically this may not have any significant financial impact for a pension scheme, it may create member dissatisfaction if self-service online offerings are down for a prolonged period. It may also create member uncertainty about the security of their benefits.

This list is not exhaustive. Among other threats is cyber-jacking, where computers are hacked to mine Bitcoin; cyber vandalism where websites are defaced; and cyber-attacks on infrastructure.

3. Who is responsible?

For a Trust based scheme the trustees are ultimately accountable for managing cyber risk. The 2004 Pensions Act requires trustees to establish and operate adequate internal controls. For contract-based schemes, this would rest with the provider, but with the onus on the employer to do their due diligence. The Pension Regulator (TPR) has issued guidelines which include the need for controls around computer systems and databases[7] as well as cyber security principles for pension schemes[8]. In addition to their responsibilities under the Pensions Act and TPR guidelines, trustees are the Data Controller under GDPR with primary responsibility for compliance with data protection legislation[9].

In practice, most schemes outsource administration to a TPA who would usually manage the cyber risk on their systems which hold member records and handle payments. However, from time to time data is shared with the trustees to assist with decision making on discretionary member cases. In

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[6] https://en.wikipedia.org/wiki/Bangladesh_Bank_robbery

[7] https://www.thepensionsregulator.gov.uk/en/document-library/codes-of-practice/code-9-internal-controls

[8] https://www.thepensionsregulator.gov.uk/en/document-library/regulatory-guidance/cyber-security-principles-the-pensions-regulator

[9] Though small occupational pensions schemes may be eligible for a discount on ICO fees for data controllers – see https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/data-protection-fee/

some cases, the data shared could include health information and this would be classed as special personal data requiring particular care and attention under GDPR.

Member details would also be shared with actuarial firms for the purposes of valuations. While personal data won't be shared with investment managers, the scheme may be exposed to cyber theft in relation to transfers of funds for investment.

To the extent third parties are affected by cyber-attacks, they are likely to be held responsible in the first place[10]. However, this does not absolve the responsibility of trustees for ensuring the third parties they use have adequate cyber risk controls, nor eliminate the possibility that a scheme may be fined under GDPR for data breaches by third parties processing data on their behalf (who would be classed as Data Processors under GDPR). We would anticipate that a scheme where questions have been asked about the cyber credentials of TPAs would be treated more favourably than one which has assumed that TPAs operate in line with best practice.

Another dimension for firms to consider is the relationship between the scheme and the employer (/sponsor). Following on from the e-mail spoofing example above, the pension scheme could be an unwitting conduit on cyber-attacks on the employer. Also, cyber-attack costs borne by the scheme may increase IAS19 deficits on the employer's balance sheet.

However, the risk goes both ways – a scheme may be reliant on employer's payroll and other system, so attacks on these could affect the scheme as well as the firm. More generally, interfaces between employer and scheme systems could be a conduit for breaches of employer systems to in turn infect scheme administration systems.

4. What can be done to mitigate cyber risk?

4.1 Trustees

In considering a scheme's exposure, trustees should first consider their own personal cyber hygiene.

- How strong are their passwords?
- Do they have adequate virus protection and anti-malware protection in place?
- Do they fail to regularly apply security updates and patches that help protect against attacks? Or worse, use unsupported software like Windows 7 which is even more vulnerable to attack[11]?

In terms of specific vulnerabilities, trustees should consider how secure is the e-mail they use for scheme correspondence.

- Do they retain scheme correspondence which includes personal data which could be stolen?
- If e-signatures are used for investment and other instructions, how easy would it be for a cyber-criminal to use these to commit fraud?

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[10] An example of this, albeit relating to data loss, was the £875,000 fine levied by the FSA on HSBC Actuaries for the loss of a disk containing unencrypted member data – see https://www.fca.org.uk/publication/final-notices/hsbc_actuaris0709.pdf; this was part of a wider fine of £3.2m levied on HSBC firms relating to the breach – see https://uk.reuters.com/article/uk-hsbc-idUKTRE56L26820090722

[11] For a list of products approaching the end of their support life, see https://docs.microsoft.com/en-us/lifecycle/end-of-support/end-of-support-2020. A fuller list of discontinued / unsupported Microsoft software can be found at: https://www.versionmuseum.com/history-of/discontinued-microsoft-products

Trustees should seek to undertake regular training to ensure that they stay up to date as threats and tactics evolve. This could be from advisers, the sponsor or using online tools such as UK National Cyber Security Centre (NCSC) guidance. Trustees could also take part in phishing exercises to assist them with staying alert to potentially harmful emails.

4.2 Assess other parties

For those schemes with in-house operations, TPR's cyber risk principles are a good starting point for considering the strength of cyber risk controls. At a minimum, the scheme should look to follow basic cyber hygiene frameworks such as the NCSC Cyber Essentials framework[12] or the US National Institute of Standards and Technology (NIST) Cybersecurity framework[13]. The scheme may also wish for all parties to comply with the ISO 27001 Information Security Management standard.

As for outsourced operations, trustees may delegate the day to day task of managing cyber risk to TPAs and others but not the ultimate responsibility. Trustees / employers should assure themselves of the strength of third-party cyber controls both at outset and on an ongoing basis. As part of initial due diligence of third parties, at a minimum trustee should look for evidence of compliance with NCSC or NIST frameworks, or ISO 27001 certification. The contract should address obligations to the scheme if the TPA is the cause of a cyber incident.

For Trust based schemes, cyber security reviews should also include the sponsor and the extent to which an attack on the sponsor's payroll and other systems could affect the scheme.

As part of subsequent monitoring, trustees or employers should seek evidence that cyber risk controls and standards are being adhered to, with notification of any changes which may affect cyber risk profile. An example of such a change may be increased home working as a result of the Covid-19 pandemic, which could expose the scheme to weaknesses in the computers of third-party staff, their VPN connections and/or their WiFi networks.

4.3 Reducing financial impact

Even with robust controls in place, successful cyber-attacks are still possible. Trustees may wish to consider if the third-party has sufficient financial resources to deal with the costs of such attacks. This might include the third-party's cyber insurance cover, but note that cyber insurance is unlikely to cover GDPR fines which would need to be borne from other resources.

Another limitation of cyber insurance is that it does not eliminate the need to maintain basic cyber hygiene, and failure to do so could result in claims being declined – in the same way as leaving keys in ignition would invalidate a motor theft claim.

Trustees should also have regard to exposure they have to the employer and should seek assurances as to the strength of employer cyber controls. Employers provide such indemnities by way of the scheme rules, but, for those employers with weaker covenants, trustee may need to consider alternative protections. For example, trustees should also enquire about the employer's insurance policies and whether any of these would cover the scheme as well as the employer from cyber-attacks.

In addition to third party and employer cyber insurance, in the event of a cyber loss, the trustees may also be able to claim on trustee liability insurance in respect of claims from members, and possibly the employer D&O policy in respect of any claims against them personally. However, in many instances cyber claims may be excluded from the policy and/or a claim by the scheme could be contested by the insurer.

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[12] https://www.ncsc.gov.uk/cyberessentials/overview

[13] https://www.nist.gov/cyberframework

Therefore, the scheme may also wish to have its own bespoke cyber insurance policy, particularly if it has in house operations. These policies may cover response costs – with the notable exception of GDPR and other regulatory fines – and may also provide practical assistance in managing any breach that may occur.

4.4 Ability to deal with an incident

Whilst not a mitigation action as such, having a plan in place and access to specialist advice can be essential when a cyber-attack does happen. By thinking in advance about the actions and decisions which may need to be taken when an incident happens, trustees can calmly plan the steps they may need to take to resolve and recover.

5. Conclusion

Cyber risk poses a significant threat to pension schemes with the ability to cripple the administration of the scheme, breach the confidentiality of member records or defraud the scheme and the employer. Trustees are ultimately responsible for ensuring adequate cyber risks are in place, and should seek for both in-house and third-party operations to adhere to basic cyber hygiene principles at a minimum. Insurance can also help mitigate losses and provide valuable assistance, though attention needs to be paid to exclusions and other potential limitations of cover.

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Patrick Kelliher & Vanessa Jaeger

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Patrick Kelliher FIA CERA, CEO Crystal Risk Consulting Ltd., Chair of the Institute and Faculty of Actuaries (IFoA) Operational Risk Working Party

Vanessa Jaeger FIA, IFoA Cyber Risk Working Party

Employee Benefit Plan
Audit Quality Center

Cybersecurity and employee benefit plans: Questions and answers

These questions and answers were prepared by the EBPAQC to help plan auditors understand cybersecurity risk in employee benefit plans, and to discuss cybersecurity risk, responsibilities, preparedness, and response with plan clients.

1. How are employee benefit plans at risk for cyber-attacks?

Employee benefit plans, like all other organizations and individuals, are vulnerable to cyber-attacks and thus exposed to risks relating to privacy, security, and fraud. Retirement, savings, and health and welfare plans are attractive targets for hackers seeking access to plan assets and participant and beneficiary personal information. Factors that contribute to cyber risk in plans include:

- The electronic environment in which they operate. Electronic benefit plan information is especially susceptible to cyber-attacks because it includes large amounts of sensitive employee information that is shared with multiple third parties, including outsourced service organizations that also maintain and electronically share sensitive employee and asset information.
- Benefit plans often fall outside the scope of a sponsor organization's cybersecurity planning with regard to ongoing business activities.
- Employee benefit plans are not regulated for cybersecurity purposes, as are certain other businesses that handle personal information.

- Plan sponsors and administrators may have a false sense that anti-virus and anti-spam software adequately protect them from these risks.
- Plan sponsors and administrators may have a false sense that their service organization SOC 1 reports address cyber risks at the service organization.

2. What plan information and assets are at risk from a cyber-attack?

Plan sponsors, administrators, and service providers maintain electronic information that may be particularly vulnerable to cyber-attacks, including:

- “Personally identifiable information” (PII) such as social security numbers, dates of birth, and email addresses. PII has significant value to cybercriminals because it is permanently associated with an individual (unlike a credit card account number, PII cannot be easily “cancelled”) and therefore can be misused over a longer period of time.
- Participant enrollment data, individual account balances, direct deposit information, compensation, and other financial information. A hacker could also target individual accounts online to gain the ability to request loans and distributions, and access participant and/or sponsor contributions.
- “Electronic protected health information” (EPHI), which includes information about health status, provision of healthcare, or payment for health care that can be linked to a specific individual, that is produced, saved, transferred or received in an electronic form. Similar to PII, EPHI does not expire, and stolen information can be used to acquire prescription drugs, receive medical care, falsify insurance claims, file fraudulent tax returns, open credit accounts, obtain official government-issued documents such as passports and driver's licenses, and even create new identities.

3. What are the potential consequences of a cyber-attack?

The consequences of a cybersecurity breach can be substantial for plan sponsors, service providers, participants, and beneficiaries.

- Significant costs may be incurred in detecting the extent of the break-in, investigating and managing the incident response, recovering data, and restoring system integrity.
- The theft of certain PII and breach of online security over plan assets and records can lead to monetary losses to participants, beneficiaries, the plan, the plan sponsor, and service providers.
- Cybersecurity breaches may result in operational disruption and damage to a sponsor’s and administrator’s reputation.
- Plan fiduciaries potentially could be found to be responsible for a fiduciary breach and required to restore losses to the plan participants and beneficiaries.
- A cybersecurity breach of EPHI in a health plan could result in potential violations of the Health Insurance Portability and Accountability Act (HIPAA) and subject the plan sponsor and service providers to fines or monetary settlements.

4. What are examples of cyber threats to benefit plans?

Plans and service providers have fallen victim to cyber schemes to steal participant data, make fraudulent transfers of participant assets (through direct transfers and fraudulent plan loans), and ransomware attacks. Some examples of cyber threats to benefit plans include:

"Phishing" techniques to deceitfully obtain logon credentials and passwords to gain access to online participant account information and request distributions or loans, redirect benefits to another account, or create fraudulent health claims.

- An email, purported to be from the plan sponsor's top executive, was sent to the human resources (HR) department requesting sensitive employee data. HR responded by sending the information before realizing it was a "spear phishing" or "whaling" email from an outside party.

- A phishing scheme was successfully carried out at a plan recordkeeper. As a result, participant accounts were breached and unauthorized distributions were made from those accounts.

Socially engineered malware, when an end-user is tricked into running a Trojan horse program, often from a website they trust and visit frequently. The otherwise innocent website is temporarily compromised to deliver malware instead of the normal website coding.

- A plan sponsor's internal IT department discovered malware on 50 computers. One participant account was breached and an improper distribution occurred before the Malware was discovered.

- In November 2016, the Department of Health and Human Services (HHS) announced a settlement with a large university for potential violations of HIPAA. Following a malware infection targeting the university's employee health care plan, the university agreed to pay $650,000 in penalties and to comply with the requirements of a corrective action plan. The breach exposed the private health information of 1,500 people. An HHS investigation revealed that the university had failed to accurately assess the risk of malware infection and adopt procedures to secure its data.

Cyber criminals using employees' personal information and setting up web profiles that allow them to take out loans from individual participant accounts.

- In June 2016, more than 90 deferred-compensation retirement accounts of a city's municipal employees were breached. Hackers obtained the personal information of plan participants and used it to set up online profiles on the plan custodian's web platform; the hackers accessed personal information and withdrew loans from 58 accounts. Reports estimate that the city lost about $2.6 million. The city returned funds taken from participant accounts and offered credit monitoring services to account holders.

- A service provider received an unusual number of distribution requests for one of their plan clients. The requests were vetted through the established process and denied because they were determined to be unauthorized.

Ransomware attacks in which cyber criminals encrypt and seize an entire hard drive, only releasing it in exchange for a ransom.

- In July 2016, a cyberattack targeted a grocery workers union pension plan. Hackers took control of the pension plan's computer servers and demanded a ransom in digital currency (three bitcoins, or about $2,000). "At risk" data included employee names, birthdates, Social Security numbers and bank information. The union refused to pay the ransom and turned to its backup system. While there was no evidence that hackers accessed sensitive information, the union offered plan participants 12 months of credit monitoring and identity theft restoration services.

Loss or theft of mobile devices, laptops, and flash drives with personal data, and personal information transmitted via unsecured email or portals

- A CD-ROM and laptop that contained private data of 30,000 plan participants and beneficiaries were stolen from the vehicle of an employee of a plan sponsor. Notification, credit monitoring, and insurance costs were approximately $200,000.

5. What responsibilities do plan fiduciaries, including those charged with governance, have for protecting plan information from cyber-attacks and responding to breaches?

Plan administrators and those charged with governance have an ERISA fiduciary duty with respect to the management of the plan, including implementing processes and controls to restrict access to a plan's systems, applications and data, including third-party records and other sensitive information. ERISA Section 404 requires benefit plan sponsors and other fiduciaries to administer their plans for the exclusive benefit of plan participants and beneficiaries, and with the "care, skill, prudence, and diligence under the circumstances that a prudent person acting in a like capacity and familiar with such matters would use." DOL Reg. §2520.104b-1(c) and DOL Technical Release No. 2011-03 and 2011-03R impose obligations to ensure that electronic systems protect the confidentiality of personal information.

As part of their ERISA duty to monitor plan service providers, plan sponsors must understand how their service providers store and protect the participant data they handle (see Question 8 below for special considerations when a service provider is used).

It is unclear whether state privacy and cyber laws are pre-empted by ERISA as it relates to benefit plan data. As such, fiduciaries should consider state statutes in determining their responsibilities for cyber security.

According to the DOL ERISA Advisory Council report, *Cybersecurity Considerations for Benefit Plans* (November 2016), (2016 DOL Advisory Council Cybersecurity Report), if (or more likely, when) a cybersecurity breach occurs, plan sponsors should have a plan in place for addressing the breach. The DOL Advisory Council Cybersecurity Report recommends:

- The plan should establish procedures for how the sponsor, likely working with its service providers, will communicate with plan participants who may be anxious about the breach and protecting their data.
- Sponsors should also have a process for determining how a breach will be corrected and what remedies will be used.
- Sponsors should document both their overall process for responding to cybersecurity breaches and any steps they take in correcting an actual breach. This documentation will help show that they acted prudently in the face of the breach.
- The Advisory Council stressed the need for plan sponsors to thoroughly vet their service providers and to negotiate contract provisions to lower or mitigate the costs of correcting a possible cyberattack on a plan.
- Finally, the Advisory Council encouraged plan sponsors to review and understand the limitations of their business insurance coverage, and consider cyber insurance to address possible coverage gaps. (The 2016 DOL Advisory Council Cybersecurity Report includes a detailed discussion of cyber insurance.)

6. What is the plan auditor's responsibility for evaluating cybersecurity risk and controls in an audit of a plan's financial statements?

The auditor's responsibilities with respect to cybersecurity matters in a financial statement audit are outlined in the Center for Audit Quality (CAQ) *Alert #2014-03, Cybersecurity and the External Audit*. The CAQ Alert notes the following:

> "Cybersecurity risks and controls are within the scope of the financial statement auditor's concern only to the extent they could impact financial statements and company assets to a material extent. Auditing standards require the financial statement auditor to obtain an understanding of how the company uses IT and the impact of IT on the financial statements. Financial statement auditors also are required to obtain an understanding of the extent of the company's automated controls as they relate to financial reporting, including the IT general controls that are important to the effective operation of automated controls, and the reliability of data and reports used in the audit that were produced by the company.
>
> In assessing the risks of material misstatement to the financial statements—including IT risks resulting from unauthorized access and unauthorized use or disposition of company assets—financial statement auditors are required to take into account their understanding of the company's IT systems and controls. If information about a material breach is identified, the financial statement auditor would need to consider the impact on financial reporting, including disclosures, and the impact on ICFR.
>
> The financial statement auditor uses a top-down approach to the audit of ICFR to select the controls to test. A top-down approach begins at the financial statement level and with the auditor's understanding of the overall risks to ICFR. The financial statement auditor then focuses on entity-level controls and works down to significant accounts and disclosures and their relevant assertions. This approach directs the financial statement auditor's attention to accounts, disclosures, and assertions that present a reasonable possibility of material misstatement to the financial statements, including related disclosures.
>
> Systems and data that are within the scope of most audits usually are a subset of the totality of systems and data used by companies to support their overall business operations. The auditor's focus is on access and changes to systems and data that could impact the financial statements and unauthorized use and disposition of assets; that is, matters within the defined boundary of ICFR.
>
> A company's overall IT platform includes systems and related data that not only address financial reporting needs, but also operational and compliance needs of the entire organization. The financial statement auditor's primary focus is on the controls and systems that are in the closest proximity to the application data of interest to the financial statement and ICFR audit—that is, systems and applications that house financial statement-related data. It is important to note that cyber incidents usually first occur through the perimeter and internal network layers, which tend to be further removed from the application, database, and operating systems that are typically included in access control testing of systems that affect the financial statements."

In a plan environment, even when a breach of participant information occurs, it may have no direct effect on the plan's financial statements. This might happen when, for example, participant information was breached but there were no plan assets lost because no participant accounts were accessed. In such situations, the breach would need to be considered, but because there is no effect on financial reporting, the auditor's response may be minimal. The CAQ Alert includes general information for auditors and should not be relied upon as being definitive or all inclusive. Auditors should refer to the rules, standards, guidance, and other resources in their entirety, and to carefully evaluate which requirements apply in each specific situation.

7. Are there additional cybersecurity considerations when plan administration is performed by a third-party service provider?

Many plan sponsors use third-party service providers such as plan administrators, actuaries, auditors, trustees, insurers and consultants for plan management and administration. These providers collect and maintain sensitive employee data, such as Social Security numbers, addresses, dates of birth, account balance information, beneficiary information and bank account details to meet their responsibilities and deliver services. Certain service providers also maintain systems that allow employees to initiate transactions online, such as obtaining loans and/or account withdrawals. Consequently, a cybersecurity breach within a service provider could result in participants' identities, personal information, or plan assets being compromised.

Plan sponsors should have discussions with the plan's third-party service providers regarding policies and procedures relating to data security, including passwords, use of social media, document retention, internet privacy, and other relevant issues. Plan sponsors should also understand the providers' procedures for breach notification, including any obligations they may have to notify participants or governmental authorities. Plan sponsors can obtain this information through discussions with those providers and by reviewing the service provider agreements.

The 2016 DOL Advisory Council Cybersecurity Report includes a list of questions regarding the protection of data that may be helpful to plan administrators when contracting with, and evaluating, service providers.

8. Does a SOC® 1 report address a plan's internal control over cybersecurity controls and risk?

For plans that utilize service organizations for most (or all) of their electronic records and investment transactions, a common misconception may be that those plans have relatively little cybersecurity risk if the service organization's SOC 1 report identifies no issues. However, a SOC 1 report addresses only a plan's internal control over financial reporting; it does *not* address broader entity cybersecurity controls and risk.

A SOC 2 report, however, specifically addresses the cybersecurity controls and risks in the system used by the service organization to provide such services to the plan. The report may also address controls relevant to the service organization's ability to maintain the confidentiality or privacy of the information processed by the system. (A SOC 2 report can address any or all of the categories in the AICPA's trust services criteria, including security, availability, processing integrity, confidentiality, or privacy.) As such, a SOC 2 report can help plan management assess and manage risks associated with outsourcing a function to a service organization by providing information about the effectiveness of controls at the service organization and how those controls integrate with the plan's controls. SOC 2 examinations are performed by independent CPAs in accordance with AICPA Guide SOC 2® *Reporting on an Examination of Controls at a Service Organization Relevant to Security, Availability, Processing Integrity, Confidentiality, or Privacy*

(SOC 2 guide). Read *Understanding How Users of Service Organizations Would Make Use of a SOC for Service Organizations SOC 2® Report* to better understand how a SOC 2 report may be useful to managing the plan's cybersecurity risks.

In addition, the AICPA *SOC for Cybersecurity* is a new risk framework that establishes common criteria and guidelines for communicating about an organization's cybersecurity risk management program. It enables plan management to report on the plan's cybersecurity management program to external stakeholders with the credibility associated with an independent examination report. Read more about the SOC for Cybersecurity guidance.

9. Are there resources available to help plans address their cybersecurity risks?

The 2016 DOL Advisory Council Cybersecurity Report included information for plan sponsors and fiduciaries to utilize when developing a cybersecurity strategy and program. A *cybersecurity risk management program* is a set of policies, processes, and controls put into place by management to protect information and systems from security events that could compromise the achievement of the entity's cybersecurity objectives and to detect, respond to, mitigate, and recover from, on a timely basis, security events that are not prevented. The report emphasized that when implementing a cybersecurity risk management strategy, plan sponsors should remember that one size does not fit all—the sponsor's approach will depend on its own circumstances, balancing the need to protect plan participant data and the sponsor's own business needs.

The AICPA has developed a Cybersecurity Resource Center that provides tools and information that plan sponsors can use to address cybersecurity risks.

10. What are effective practices and policies to protect against cyber-attacks?

The 2016 DOL Advisory Council Cybersecurity Report identified four major areas for effective practices and policies.

1. Data management – Protect and control data.
2. Technology management – Maintain up to date technology.
3. Service provider management – Perform due diligence on plan data security of service providers.
4. People issues – Properly train and manage personnel.

The Report includes information for plan sponsors to assist them in establishing a cybersecurity strategy for employee benefit plans and contracting with service providers, as well as a list of resources for plan sponsors and service providers that addresses considerations for managing EBP cybersecurity risks.

11. What resources are available to help plan management determine the adequacy of the plan's cybersecurity risk management strategy and program, and communicate that to plan fiduciaries and third parties?

The AICPA has developed an entity-level cybersecurity reporting framework through which organizations can communicate useful information about their cybersecurity risk management program to a broad range of stakeholders, including boards of directors, senior management, investors, and others. The AICPA cybersecurity risk management framework creates opportunities for:

- Plan management to describe the plan's cybersecurity risk management program.
- CPAs to perform a consulting engagement to help plan management develop a description of the plan's cybersecurity risk management program to provide to the board and other internal parties who are interested in that information.
- CPAs to perform a consulting engagement known as a "readiness assessment" to help plan management identify where the plan's cybersecurity processes and controls may need to be shored up.

In addition, the AICPA has introduced SOC for Cybersecurity, which:

- Enables CPAs to examine and report on a plan's cybersecurity risk management program.
- Results in the issuance of a general use cybersecurity report designed to meet the needs of a variety of potential users. The CPA provides an opinion on:
  - management's description of the entity's cybersecurity risk management program, and
  - the effectiveness of controls within that program to achieve the entity's cybersecurity objectives.

For auditors who wish to assist their plan clients in this area, the AICPA has developed an interactive training and self-paced learning program, the Cybersecurity Fundamentals for Finance and Accounting Professionals Certificate, which addresses terminology used and the appropriate questions to ask; applying the security mindset to daily work; the potential risks and opportunities in developing or evaluating cybersecurity risk management programs; and the importance and impact of cybersecurity risks on an organization, including relevant aspects of the AICPA's new cybersecurity risk management reporting framework. Two additional learning programs, Cybersecurity Advisory Services Certificate and Cybersecurity Attest Services Certificate, are offered at various times and locations—information is available at the AICPA Store.

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These questions and answers are not intended to be authoritative guidance or legal advice. They have not been approved, disapproved, or otherwise acted on by a senior technical committee of the AICPA.