



NDTFFR Board Meeting Agenda

Thursday, September 21, 2017

1:00 pm

Peace Garden Room

State Capitol, Bismarck, ND

1. Call to Order and Approval of Agenda - Pres. Gessner (Board Action)
2. Approval of Minutes of July 27 and July 28, 2017 Meetings - Pres. Gessner (Board Action) 5 min.
3. Annual TFFR Investment Report - Dave Hunter (**Board Action**) 30 min.
4. Annual Budget and Expense Report - Connie Flanagan (**Board Action**) 15 min.
5. Annual Technology Report - Rich Nagel (**Board Action**) 15 min.
6. TFFR Communications Update - Fay Kopp (Information) 10 min.
7. TFFR Legislative Update - Fay Kopp (Information) 5 min.
8. LEA President Contract Release Time - Fay Kopp (**Board Action**) – 5 min.
*Executive Session possible for attorney consultation and to discuss confidential member information pursuant to NDCC 44-04-19.1, 44-04-19.2 and 15-39.1-30.
9. Employer Payment Plan - Model 3 Review - Fay Kopp (Information) 15 min.
10. SIB Customer Satisfaction Survey - Pres. Gessner (**Board Action**) 10 min.
11. Board Education: Disability Benefits Explained - Shelly Schumacher (Info) 15 min.
12. Consent Agenda - Fay Kopp (**Board Action**) 5 min
Disability application
*Executive Session possible to discuss confidential member information pursuant to NDCC 15-39.1-30.
13. Other Business
14. Adjournment

Next Board Meeting: October 26, 2017

Any person who requires an auxiliary aid or service should contact the Retirement and Investment Office at 701-328-9885 at least three (3) days before the scheduled meeting.

**NORTH DAKOTA TEACHERS' FUND FOR RETIREMENT
MINUTES OF THE
JULY 27, 2017, BOARD MEETING**

BOARD MEMBERS PRESENT: Mike Gessner, President
Rob Lech, Vice President
Mike Burton, Trustee
Toni Gumeringer, Trustee
Mel Olson, Trustee
Kelly Schmidt, State Treasurer

ABSENT: Kirsten Baesler, State Superintendent

STAFF PRESENT: David Hunter, ED/CIO
Fay Kopp, Deputy ED/CRO
Terra Miller Bowley, Audit Services Supervisor
Darlene Roppel, Retirement Assistant
Shelly Schumacher, Retirement Program Manager

OTHERS PRESENT: Janilyn Murtha, Attorney General's Office
Kathy Kindschi, NDU-Retired
Judy Pfeifer, NDRTA/APT Inc

CALL TO ORDER:

Mr. Mike Gessner, President of the Teachers' Fund for Retirement (TFFR) Board of Trustees, called the meeting to order at 1:00 p.m. on Thursday, July 27, 2017, in the Peace Garden Room, State Capitol, Bismarck, ND.

THE FOLLOWING MEMBERS WERE PRESENT REPRESENTING A QUORUM: MR. BURTON, MR. GESSNER, MRS. GUMERINGER, MR. LECH, MR. OLSON, AND TREASURER SCHMIDT.

SUPT. BAESLER WAS ABSENT.

ACCEPTANCE OF AGENDA:

The Board considered the revised agenda for the July 27, 2017 meeting.

IT WAS MOVED BY MR. LECH AND SECONDED BY MR. OLSON AND CARRIED BY A ROLL CALL VOTE TO ACCEPT THE REVISED AGENDA AS PRESENTED.

AYES: TREASURER SCHMIDT, MR. BURTON, MR. LECH, MRS. GUMERINGER, MR. OLSON, AND PRESIDENT GESSNER

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER

MINUTES:

The Board considered the minutes of the April 27, 2017, meeting.

IT WAS MOVED BY MR. LECH AND SECONDED BY MR. BURTON AND CARRIED BY A ROLL CALL VOTE TO ACCEPT THE APRIL 27, 2017, MINUTES AS DISTRIBUTED.

AYES: MR. LECH, MR. OLSON, TREASURER SCHMIDT, MR. BURTON, MRS. GUMERINGER, AND PRESIDENT GESSNER

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER

TRUSTEE APPOINTMENT:

Governor Burgum reappointed Mr. Burton to the TFFR Board for another 5-year term (July 1, 2017 - June 30, 2022). Mr. Burton represents retired teachers and has been serving since January 22, 2015.

OFFICER ELECTIONS:

IT WAS MOVED BY TREASURER SCHMIDT AND SECONDED BY MRS. GUMERINGER AND CARRIED BY A ROLL CALL VOTE TO CONTINUE WITH THE SAME SLATE OF OFFICERS FOR THE PERIOD OF JULY 1, 2017 - JUNE 30, 2018.

AYES: TREASURER SCHMIDT, MRS. GUMERINGER, MR. OLSON, MR. BURTON, MR. LECH, AND PRESIDENT GESSNER

NAYS: NONE

MOTION CARRIED.

ABSENT: SUPT. BAESLER

Mr. Gessner will continue to serve as President and Mr. Lech as Vice President/Parliamentarian. Mr. Gessner, Mr. Lech, Mr. Olson, Treasurer Schmidt (ex-officio) will continue to represent TFFR on the State Investment Board (SIB) with Mr. Burton serving as alternate. Mr. Gessner will continue to represent TFFR on the SIB Audit Committee.

AGENCY UPDATE:

Mr. Hunter stated the Retirement and Investment Office (RIO) has officially relocated to 3442 East Century Avenue effective July 1, 2017. Mr. Hunter stated the move went well and he appreciated all of the efforts by RIO personnel. Mr. Hunter also stated RIO expects to be under budget by approximately \$75,000 for the 2015-17 biennium. The majority of the savings would fall under operations.

Ms. Kopp mentioned the new office facility does give the TFFR board options to hold future meetings at the new site especially during the legislative session if the board is interested.

Mr. Hunter also stated Mrs. Darlene Roppel, after 10 years of dedicated service, will be retiring from RIO effective July 28, 2017. Mr. Hunter

expressed his gratitude to Mrs. Roppel and wished her and her family all the best in the future.

INVESTMENT UPDATE:

Mr. Hunter presented an investment update for the period ending March 31, 2017. TFFR posted a net return of 7.95 percent. TFFR investments have approximated \$2 billion during the last 5 years and excess return has averaged over 0.70% per annum. Based on these values, TFFR's use of active management has enhanced net investment returns by \$70 million for the 5 years ended March 31, 2017. Net return for the period ending May 31, 2017, was 11.85 percent. Mr. Hunter also commented on managers on the SIB Watch List.

Mr. Hunter reminded the board of the SIB's Callan College event which is to be held at the Bismarck State College, National Energy Center of Excellence, July 28, 2017 from 8:15 a.m. to approximately 12:30 p.m.

ESPB CRITICAL SHORTAGE AREA:

Ms. Kopp stated the Education Standards and Practices Board (ESPB) has identified critical shortage areas for TFFR retiree re-employment as required each year per NDCC 15-39.1-19.2.

ESPB declared all teacher content areas as critical shortage areas for the 2017-18 school year. ESPB has also determined no administrator areas as critical shortage areas for the same time period.

RIO staff has notified all employers of the determination and requested the employers to contact the office to discuss retiree re-employment provisions or ESPB to discuss the critical shortage area designation.

Discussion followed on the metrics used by ESPB and DPI for determining critical shortage areas.

TFFR PROGRAM POLICY:

Mrs. Kopp presented the first reading of a new policy "Local Education Association (LEA) President Contract Release Time Salary" for the board's consideration and acceptance. The Board had directed staff to draft a policy to include pay for LEA president's contract release time as eligible TFFR retirement salary.

IT WAS MOVED BY MR. OLSON AND SECONDED BY MRS. GUMERINGER TO ACCEPT THE FIRST READING OF TFFR BOARD POLICY "LOCAL EDUCATION ASSOCIATION PRESIDENT CONTRACT RELEASE TIME SALARY."

Discussion followed on the definition and responsibilities of a teacher.

AYES: MRS. GUMERINGER, MR. BURTON, MR. OLSON

NAYS: MR. LECH, TREASURER SCHMIDT, PRESIDENT GESSNER

MOTION FAILED

ABSENT: SUPT. BAESLER

Discussion followed on how to treat contract release time for LEA presidents, professional leave time granted under other circumstances for teachers, definition of teaching, supervisory, administrative, and extracurricular duties, and board fiduciary responsibilities. Mrs. Murtha also provided legal comments.

IT WAS MOVED BY MR. LECH AND SECONDED BY TREASURER SCHMIDT THAT SALARY EARNED FOR LEA PRESIDENT CONTRACT RELEASE TIME WOULD NOT BE ELIGIBLE TFFR SALARY UNTIL AFTER COMPLETION OF THE CURRENT LEA PRESIDENTS TERMS IN OFFICE.

AYES: MR. LECH, TREASURER SCHMIDT, PRESIDENT GESSNER

NAYS: MR. OLSON, MRS. GUMERINGER, MR. BURTON

MOTION FAILED

ABSENT: SUPT. BAESLER

The Board concurred to table the issue until the next meeting.

ELIGIBLE SALARY REVIEW:

Mrs. Kopp reviewed the statutory definition of salary and bonuses for pension purposes. A number of questions have arisen recently from some school districts, members, and interested parties, including the ND Education Fact Finding Commission, about whether or not certain types of salary increases or payments qualify as eligible TFFR salary. Mrs. Kopp outlined issues relating to intent, interpretation, and implementation of various one-time or permanent types of salary increases and discussions with school districts who are at impasse. Ms. Murtha also provided legal comments. The Board discussed continuing contract rights, salary increases, and contract negotiations.

The Board took no action. The review was for informational purposes only.

The Board recessed at 2:30 pm and reconvened at 3:00 pm. A retirement reception was held for Mrs. Roppel.

TFFR PROGRAM REVIEW:

The Board reviewed their responsibilities as fiduciaries of the TFFR retirement program.

As part of the annual board review, Mrs. Kopp reviewed the following - 2016-17 TFFR Board Accomplishments and Program Monitoring Summary, 2017-18 Meeting Calendar and Education Plan, and TFFR Program and Ends Policies. Mrs. Kopp commented on various board policies that may need to be reviewed by the Board in the upcoming year.

TFFR Program Policy C-3, Board Members' Code of Conduct, indicates that each board member is required to reaffirm their understanding of the policy annually and disclose any conflicts of interest. Board members were given the documentation to confirm their understanding of the policy.

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

AYES: MRS. GUMERINGER, MR. LECH, TREASURER SCHMIDT, MR. BURTON, MR. OLSON, AND PRESIDENT GESSNER

NAYS: NONE

MOTION CARRIED

ABSENT: SUPT. BAESLER

TFFR CUSTOMER SATISFACTION REPORTS:

Mrs. Kopp reviewed responses to the TFFR Customer Satisfaction Surveys received from NDCEL, NDRTA, NDSBA, and NDASBM as well as member and employer responses from the Outreach Programs for 2016-17.

Mrs. Kopp and the Board thanked RIO personnel for their excellent efforts and positive results.

IT WAS MOVED BY TREASURER SCHMIDT AND SECONDED BY MRS. GUMERINGER AND CARRIED BY A ROLL CALL VOTE TO ACCEPT THE TFFR CUSTOMER SATISFACTION REPORTS FOR THE PERIOD OF JULY 1, 2016 - JUNE 30, 2017.

AYES: MR. BURTON, MRS. GUMERINGER, MR. OLSON, TREASURER SCHMIDT, MR. LECH, AND PRESIDENT GESSNER

NAYS: NONE

MOTION CARRIED

ABSENT: SUPT. BAESLER

SIB CUSTOMER SATISFACTION SURVEY:

On an annual basis, the SIB conducts a customer satisfaction survey administered by the Audit Services Division of RIO. The purpose of the survey is to determine how well the SIB, through the staff of RIO, is meeting the expectations of its clients. President Gessner requested TFFR Board members to complete the survey and send their responses to him. The results will be compiled and reviewed at the TFFR Board's September 21, 2017, meeting.

AUDIT SERVICES:

Ms. Miller Bowley reviewed the Audit Division's activities for the period of July 1, 2016 - June 30, 2017. Audit coverage was based on the work plan approved by the SIB Audit Committee. Audit effort was directed towards the needs of RIO and the concerns of management and the SIB Audit Committee.

IT WAS MOVED BY MR. BURTON AND SECONDED BY MR. LECH AND CARRIED BY A ROLL CALL VOTE TO ACCEPT THE AUDIT REPORT FOR THE PERIOD OF JULY 1, 2016 - JUNE 30, 2017.

AYES: TREASURER SCHMIDT, MR. OLSON, MR. BURTON, MR. LECH, MRS. GUMERINGER, AND PRESIDENT GESSNER

NAYS: NONE

MOTION CARRIED

ABSENT: SUPT. BAESLER

TRUSTEE EDUCATION:

Mrs. Kopp reviewed upcoming educational opportunities for the trustees. Trustees are to notify RIO if they are interested in attending any conferences or training programs.

BOARD EDUCATION:

Ms. Schumacher provided an educational segment on Qualified Domestic Relations Orders (QDRO), referencing NDCC 15-39.1-12.2 and NDAC 82-08, and how the cases are processed by TFFR. A QDRO is any judgment, decree, or order, including approval of a property settlement agreement, which relates to the provision of child support, spousal support, or marital property rights to a spouse, former spouse, child or other dependent of the teacher, which is made pursuant to a North Dakota Domestic relations law, and which creates or recognizes the existence of an alternate payee's right, or assigns to an alternate payee the right to, receive all or a part of the benefits payable to the teacher.

CONSENT AGENDA:

IT WAS MOVED BY TREASURER SCHMIDT AND SECONDED BY MR. OLSON AND CARRIED BY A ROLL CALL VOTE TO ACCEPT STAFF RECOMMENDATION AND APPROVE THE CONSENT AGENDA.

AYES: MR. BURTON, MR. LECH, MRS. GUMERINGER, MR. OLSON, TREASURER SCHMIDT, PRESIDENT GESSNER

NAYS: NONE

MOTION CARRIED

ABSENT: SUPT. BAESLER

OTHER BUSINESS:

The next regular board meeting will be held September 21, 2017, in the Peace Garden Room at the State Capitol.

ADJOURNMENT:

With no further business to come before the Board, President Gessner adjourned the meeting at 4:02 p.m.

Respectfully Submitted:

Mr. Mike Gessner, President
Teachers' Fund for Retirement Board

Bonnie Heit c/o Darlene Roppel
Reporting Secretary

**NORTH DAKOTA TEACHERS' FUND FOR RETIREMENT
MINUTES OF THE
JULY 28, 2017 SPECIAL BOARD MEETING**

BOARD MEMBERS PRESENT: Mike Gessner, President
Mike Burton, Trustee
Toni Gumeringer, Trustee
Rob Lech, Trustee
Mel Olson, Trustee
Kelly Schmidt, State Treasurer

ABSENT: Kirsten Baesler, State Superintendent

OTHERS: Fay Kopp
See State Investment Board minutes for attendance list.

A quorum of the TFFR Board attended the State Investment Board (SIB) meeting on July 28, 2017 at 8:15 a.m. at the National Energy Center of Excellence, Bismarck State College, Bismarck, North Dakota. TFFR Board members participated in a Callan College session by Callan Associates. Educational topics included Capital Market Theory, Asset Allocation, Role of the Fiduciary, and Investment Policy Statements.

No business was conducted.

Respectfully Submitted:

Mr. Michael Gessner, President
Teachers' Fund for Retirement Board

Fay Kopp, Chief Retirement Officer

TFFR Investment Update

For the Periods Ended June 30, 2017

September 21, 2017

Note: This document contains unaudited data which is deemed to be materially accurate, but is unaudited and subject to change.

Dave Hunter, Executive Director/CIO

Darren Schulz, Deputy Chief Investment Officer

Eric Chin, Senior Investment Analyst

ND Retirement & Investment Office (RIO)

State Investment Board (SIB)

Executive Summary for periods ended June 30, 2017

Investment Performance Update –

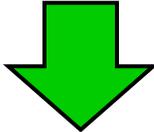
- **For the fiscal year ended June 30, 2017, TFFR earned a net return of 12.9% versus a policy benchmark of less than 12%.** The financial markets were surprisingly robust and resilient in fiscal 2017. Global equities rose 18.8% last year with TFFR's International Equity portfolio (up 21%) outperforming our U.S. Equity managers (up 17%). TFFR's fixed income returns far exceeded expectations with our U.S. debt portfolio posting a 6% gain versus a **-0.3%** return for the Aggregate Index. TFFR's international debt portfolio earned less than 1% in fiscal 2017 but beat the global fixed income index which was negative due to low "real" rates outside the U.S. Real Assets were mixed with Real Estate and Infrastructure each earning over 9% in fiscal 2017, while **Timber fell over 9%** this past year. **TFFR's target asset allocation remains at 58% Equity, 23% Fixed Income, 18% Real Assets and 1% Cash.**
- **Asset allocation is the primary driver of returns over the long-term. TFFR earned a net return of 9.1% for the 5-years ended June 30, 2017, which exceeded the policy benchmark of 8.3% by over 0.65%.** During the last 5-years, asset allocation and active management generated over **\$800 million** (93%) and **\$60 million**₁ (7%) of TFFR's net investment income, respectively.
- TFFR's investment returns were ranked in the **26th** percentile for the 5-years ended June 30, 2017, based on Callan's Public Fund Sponsor Database (on an unadjusted risk basis).

Investment Policy Statement Update –

- The SIB recently approved structural changes to eliminate \$575 million of agency MBS and international debt strategies. These changes are expected to materially improve risk adjusted returns within the Pension Trust largely due to the elimination of international fixed income with low expected returns and high expected volatility. **In order to implement these changes, TFFR's asset allocation within Fixed Income should be revised to reduce Investment Grade to 16% (from 19%) while increasing Non-Investment Grade to 7% (from 4%). The total allocation to Fixed Income will remain constant at 23%.**

TFFR Investment Ends – June 30, 2017

SIB clients should receive net investment returns consistent with their written investment policies and market variables. This “End” is evaluated based on comparison of each client’s (a) actual net investment return, (b) standard deviation and (c) risk adjusted excess return, to the client’s policy benchmark over 5 years.

					Risk 5 Yrs Ended 6/30/2017	Risk Adj Excess Return 5 Yrs Ended 6/30/2017
		1 Yr. Ended 6/30/2017	3 Yrs Ended 6/30/2017	5 Yrs Ended 6/30/2017		
Total Fund Return - Net	a	12.92%	5.44%	9.18%	4.8%	0.52%
Policy Benchmark Return	b	11.63%	4.69%	8.25%	4.6%	
Excess Return	a - b	1.29%	0.76%	0.94%	105%	

TFFR earned \$265 million of net income in fiscal 2017.

Key: TFFR investments averaged \$1.9 billion the last 5-years and Excess Return has exceeded **0.65%** per annum. Based on these values, **TFFR’s use of active management has enhanced Net Investment Returns by \$60 million for the 5-years ended June 30, 2017** (or \$1.9 billion x **0.65%** = \$12 million x 5 years = **\$60 million**). These returns were achieved while adhering to prescribed Risk limits (e.g. 105% versus a policy limit of 115%).

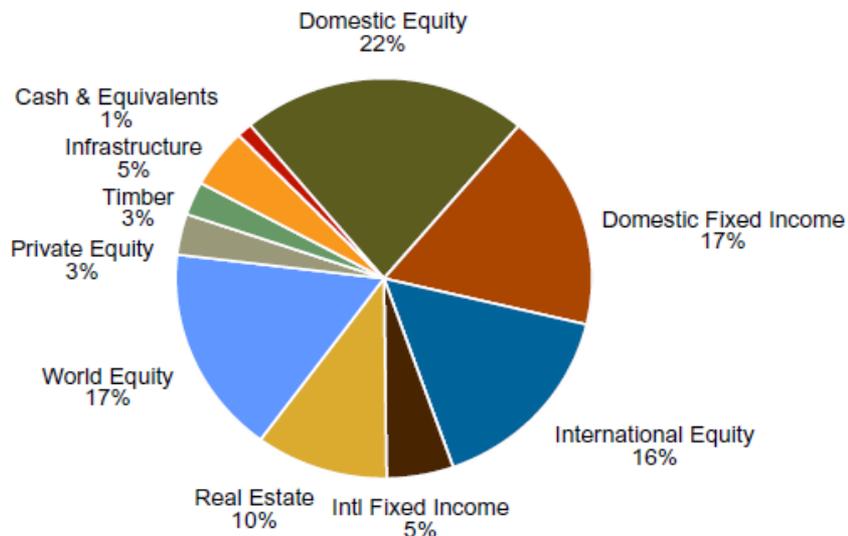
5-Yr. Returns June 30, 2017	Asset Allocation	Benchmark Return	Allocation x Return
<i>Asset Class</i>	<i>a</i>	<i>b</i>	<i>a x b</i>
Equity	58%	11%	6.4%
Fixed Income	23%	2.6%	0.6%
Real Assets	18%	7.3%	1.3%
Policy Benchmark Return (5-years)			8.3%

Current Policy Benchmark: 58% Equity (31% U.S., 21% Non-U.S., 6% Private); 23% Fixed Income (13% U.S., 6% Non-U.S. 4% High Yield); 18% Real Assets (10% Real Estate; 5% Infrastructure; 3% Timber); and 1% Cash.

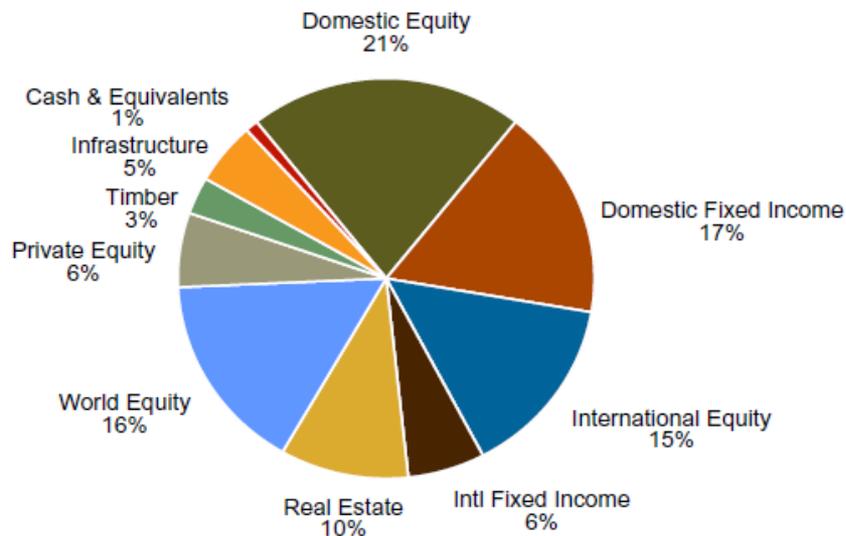
Actual Asset Allocations are within 3% of Target

The **Private Equity Underweight of 2.7%** is offset by **Overweight** allocations to **Domestic Equity of 1.1%**, **Int'l. Equity of 1.3%** and **World Equity of 0.8%**.

Actual Asset Allocation



Target Asset Allocation



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equity	521,098	22.5%	21.4%	1.1%	25,000
Domestic Fixed Income	405,007	17.5%	17.0%	0.5%	10,910
International Equity	368,270	15.9%	14.6%	1.3%	29,811
Intl Fixed Income	121,141	5.2%	6.0%	(0.8%)	(17,952)
Real Estate	237,904	10.3%	10.0%	0.3%	6,083
World Equity	388,563	16.8%	16.0%	0.8%	17,649
Private Equity	76,976	3.3%	6.0%	(2.7%)	(62,117)
Timber	61,610	2.7%	3.0%	(0.3%)	(7,937)
Infrastructure	110,391	4.8%	5.0%	(0.2%)	(5,520)
Cash & Equivalents	27,255	1.2%	1.0%	0.2%	4,072
Total	2,318,214	100.0%	100.0%		

Asset Class Performance

Periodic Table of Investment Returns
for Periods Ended June 30, 2017



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
MSCI:EM Gross	Russell:2000 Index	S&P:500	S&P:500	S&P:500	S&P:500	Russell:2000 Index
6.4%	24.6%	9.6%	14.6%	7.2%	7.2%	8.0%
MSCI:EAFE	MSCI:EM Gross	Russell:2000 Index	Russell:2000 Index	Russell:2000 Index	Russell:2000 Index	S&P:500
6.1%	24.2%	7.4%	13.7%	6.9%	6.9%	7.2%
S&P:500	MSCI:EAFE	Blmbg:Aggregate	MSCI:EAFE	Blmbg:Aggregate	Blmbg:Aggregate	MSCI:EM Gross
3.1%	20.3%	2.5%	8.7%	4.5%	4.5%	5.8%
Russell:2000 Index	S&P:500	MSCI:EM Gross	MSCI:EM Gross	MSCI:EM Gross	MSCI:EM Gross	Blmbg:Aggregate
2.5%	17.9%	1.4%	4.3%	2.2%	2.2%	5.2%
Blmbg:Aggregate	3 Month T-Bill	MSCI:EAFE	Blmbg:Aggregate	MSCI:EAFE	MSCI:EAFE	MSCI:EAFE
1.4%	0.5%	1.1%	2.2%	1.0%	1.0%	4.3%
3 Month T-Bill	Blmbg:Aggregate	3 Month T-Bill	3 Month T-Bill	3 Month T-Bill	3 Month T-Bill	3 Month T-Bill
0.2%	(0.3%)	0.2%	0.2%	0.6%	0.6%	2.2%
Blmbg:Commodity Price Idx (3.2%)	Blmbg:Commodity Price Idx (7.0%)	Blmbg:Commodity Price Idx (15.0%)	Blmbg:Commodity Price Idx (9.4%)	Blmbg:Commodity Price Idx (6.9%)	Blmbg:Commodity Price Idx (6.9%)	Blmbg:Commodity Price Idx (1.8%)

U.S. Small Caps (**Russell 2000**) and Emerging Markets (**MSCI EM**) returned over 24% for the 1-year ended June 30, 2017, while International Equity (**MSCI EAFE**) was up 20% and U.S. Large Cap (**S&P 500**) was up 18%. U.S. Fixed Income (**Blmbg. Aggregate**) declined **0.3%** in Fiscal 2017.

Global Equity, Fixed Income and Real Asset Valuations

TFFR's investment income was \$89.5 million last quarter while net outflows were < \$5 million.

	June 30, 2017			March 31, 2017		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
GLOBAL EQUITY	\$1,354,907,880	58.45%	\$(21,224,026)	\$62,421,822	\$1,313,710,084	58.81%
Domestic Equity	\$521,098,201	22.48%	\$(11,582,967)	\$15,683,417	\$516,997,751	23.15%
Large Cap	397,798,517	17.16%	(11,386,283)	12,003,389	397,181,411	17.78%
Small Cap	123,299,684	5.32%	(196,684)	3,680,027	119,816,340	5.36%
International Equity	\$368,269,961	15.89%	\$(9,091,061)	\$23,247,965	\$354,113,057	15.85%
Developed Intl Equity	287,498,117	12.40%	(6,141,061)	18,511,090	275,128,088	12.32%
Emerging Markets	80,771,844	3.48%	(2,950,000)	4,736,875	78,984,969	3.54%
World Equity	\$388,563,403	16.76%	\$(498,473)	\$17,937,990	\$371,123,886	16.61%
Private Equity	\$76,976,315	3.32%	\$(51,525)	\$5,552,450	\$71,475,390	3.20%
GLOBAL FIXED INCOME	\$526,147,328	22.70%	\$(1,109,980)	\$14,230,225	\$513,027,083	22.97%
Fixed Income Comp	\$405,006,821	17.47%	\$(939,185)	\$9,493,579	\$396,452,428	17.75%
Investment Grade Fixed	298,944,157	12.90%	(402,417)	6,663,497	292,683,077	13.10%
Below Inv. Grade Fixed Income	106,062,664	4.58%	(536,768)	2,830,081	103,769,351	4.65%
International Fixed Income	\$121,140,506	5.23%	\$(170,795)	\$4,736,646	\$116,574,655	5.22%
GLOBAL REAL ASSETS	\$409,904,597	17.68%	\$8,683,595	\$12,705,639	\$388,515,364	17.39%
Real Estate	237,904,250	10.26%	1,177,757	7,529,989	229,196,503	10.26%
Timber	61,609,798	2.66%	(583,201)	(848,449)	63,041,448	2.82%
Infrastructure	110,390,549	4.76%	8,089,038	6,024,098	96,277,413	4.31%
Cash & Equivalents	\$27,254,525	1.18%	\$8,766,629	\$63,246	\$18,424,650	0.82%
Securities Lending Income	\$0	0.00%	\$(59,807)	\$59,807	-	-
Total Fund	\$2,318,214,330	100.0%	\$(4,943,590)	\$89,480,739	\$2,233,677,181	100.0%

Cash Outflows



Cash Inflows



Comparison of Major Asset Class Returns vs. Benchmark

Global Equities earned 18.81% for the 1-year ended June 30, 2017, which was 0.23% above the benchmark, while the 5-year return of 11.29% surpassed the benchmark of 10.71% by 0.58%.

Global Fixed Income earned 4.68% last year and 4.57% the last 5-years due to strong returns in U.S. Fixed Income including high yield & private credit offset by weaker returns in International Debt and Long Term Treasuries due to rising rates.

Global Real Assets were mixed with Real Estate and Infrastructure earning over 9.1% last year, while Timber returns were -9.4% in fiscal 2017.

Every major asset class outperformed their respective benchmarks for the 5-years ended June 30, 2017, with the largest excess return (of 1.99%) created within Global Fixed Income.

	Target Allocation	1-year	3-years	5-years
Global Equity	58%			
- Actual		18.81%	5.60%	11.29%
- Benchmark		<u>18.58%</u>	<u>4.95%</u>	<u>10.71%</u>
		0.23%	0.65%	0.58% 
Global Fixed Income	23%			
- Actual		4.68%	3.14%	4.57%
- Benchmark		<u>0.94%</u>	<u>1.64%</u>	<u>2.58%</u>
		3.74%	1.50%	1.99% 
Global Real Assets	18%			
- Actual		5.78%	7.56%	8.29%
- Benchmark		<u>4.82%</u>	<u>6.61%</u>	<u>7.29%</u>
		0.96%	0.95%	1.00% 
Cash Equivalents	1%			
- Actual		0.74%	0.37%	0.25%
- Benchmark		<u>0.49%</u>	<u>0.23%</u>	<u>0.17%</u>
		0.25%	0.14%	0.08%
TFFR - Total Fund	100%			
- Actual		12.92%	5.44%	9.18%
- Benchmark		<u>11.63%</u>	<u>4.69%</u>	<u>8.25%</u>
		1.29%	0.75%	0.93% 

**TFFR Returns
for 1- and 5-
years ended
June 30, 2017**

**TFFR earned over
12.9% and 9.1%
for the 1- and 5-
years ended June
30, 2017, beating
the Policy Target
Benchmarks.**

**Equity markets
were strong with
Global Equities up
18.8% the last
year and 11.3%
the last 5-years
beating our
Benchmarks for
the 1- and 5-years
ended June 30,
2017.**

	June-17			Fiscal 2017	5 Years Ended 6/30/2017
	Market Value	Allocation Actual	Policy	Net	Net
TOTAL FUND	2,318,214,334	100%	100%	12.9%	9.2%
<i>POLICY TARGET BENCHMARK</i>				11.6%	8.2%
EXCESS RETURN				1.3%	0.9%
GLOBAL EQUITIES	1,354,907,884	58.4%	58.0%	18.8%	11.3%
<i>Benchmark</i>				18.6%	10.8%
Epoch Global Choice (1)	172,947,709	7.5%	7.0%	17.0%	10.7%
LSV Global Value Equity	215,615,694	9.3%	9.0%	23.3%	N/A
Total Global Equities	388,563,403	16.8%	16.0%	20.6%	10.6%
<i>MSCI World</i>				18.2%	11.4%
<i>Domestic - broad</i>	521,098,204	22.5%	21.5%	17.1%	14.9%
<i>Benchmark</i>				19.6%	14.5%
Large Cap Domestic					
LA Capital Large Cap Growth	151,593,528	6.5%	6.6%	15.7%	15.3%
<i>Russell 1000 Growth</i>				20.4%	15.3%
LA Capital 60% Large Cap/40% Large Ca	88,118,826	3.8%	3.3%	15.4%	14.8%
<i>Russell 1000</i>				18.0%	14.7%
NTAM - Quant Enhanced S&P 500	73,562,333	3.2%	3.3%	16.5%	14.3%
Clifton Group Enhanced S&P 500	84,523,832	3.6%	3.3%	17.7%	14.7%
<i>S&P 500</i>				17.9%	14.6%
Total Large Cap Domestic	397,798,520	17.2%	16.6%	16.2%	15.3%
<i>Russell 1000 (2)</i>				18.0%	14.7%
Small Cap Domestic					
Atlanta Capital Small Cap Equity Fund	55,591,631	2.4%	2.4%	15.0%	N/A
Clifton Group Enhanced Russell 2000	67,708,052	2.9%	2.4%	24.4%	14.2%
Total Small Cap Domestic	123,299,684	5.3%	4.8%	20.1%	13.1%
<i>Russell 2000</i>				24.6%	13.7%
<i>International - broad</i>	368,269,962	15.9%	14.5%	21.2%	9.4%
<i>Benchmark</i>				20.3%	7.7%
Developed International					
NTAM - MSCI World ex-US Index	136,865,616	5.9%	5.9%	19.9%	N/A
<i>MSCI World Ex US</i>				19.5%	
William Blair International Leaders	66,451,831	2.9%	3.5%	19.8%	N/A
<i>MSCI ACWI ex-US IMI (Net)</i>				20.4%	
DFA Intl. Small Cap Value Portfolio (4)	39,838,153	1.7%	1.2%	28.8%	13.8%
Wellington International Small Cap Oppor	44,342,517	1.9%	1.2%	19.6%	14.1%
<i>S&P/Citigroup BMI EPAC < \$2BN</i>				20.9%	12.0%
Total Developed International	287,498,117	12.4%	11.8%	21.0%	10.3%
<i>MSCI World Ex US (3)</i>				19.5%	8.5%
Emerging Markets					
Axiom Emerging Markets Equity Fund (4)	61,162,340	2.6%	2.1%	22.3%	N/A
DFA Emerging Markets Small Cap Portfo	19,609,505	0.8%	0.7%	19.5%	6.9%
Total Emerging Markets	80,771,845	3.5%	2.8%	21.6%	4.9%
<i>MSCI Emerging Markets</i>				23.7%	4.0%
Total Private Equity (4)	76,976,315	3.3%	6.0%	11.1%	1.6%

TFFR Returns for the 1- and 5-years ended June 30, 2017

Global Fixed Income earned over 4.5% for the 1- and 5-years ended June 30, 2017, exceeding Benchmarks. Strong returns in U.S. Fixed Income including Private Credit and High Yield where offset by weak results in International Fixed Income.

Global Real Assets earned 5.8% last year and 8.3% per annum over the last 5-years. Real Estate and Infrastructure earned 12.5% and 6.6%, respectively, the last 5-years, while Timber returns disappointed at only 0.3% per annum for the 5-years ended June 30, 2017.

	June-17			Fiscal 2017	5 Years Ended 6/30/2017
	Market Value	Actual	Policy	Net	Net
GLOBAL FIXED INCOME Benchmark	526,147,328	22.7%	23.0%	4.7% 0.9%	4.6% 2.6%
Domestic Fixed Income Benchmark	405,006,822	17.5%	17.0%	6.0% 2.6%	5.5% 3.5%
Investment Grade Fixed Income					
PIMCO Distressed Senior Credit Opportu	45,961,014	2.0%	2.0%	17.1%	13.7%
Bloomberg Aggregate				-0.3%	
State Street Long U.S. Treasury Index N	50,585,129	2.2%	1.3%	-7.3%	N/A
Bloomberg Long Treasuries				-7.2%	
PIMCO Unconstrained Bond Fund	28,834,589	1.2%	1.7%	9.2%	N/A
Declaration Total Return Bond Fund (4)	38,844,117	1.7%	1.6%	5.0%	5.1%
3m LIBOR				1.0%	0.5%
JP Morgan Mortgage Backed Securities	56,160,684	2.4%	2.6%	0.6%	N/A
PIMCO Agency MBS	78,558,625	3.4%	3.9%	0.2%	9.5%
Bloomberg Mortgage Backed Securities Index				-0.1%	2.0%
Total Investment Grade Fixed Income	298,944,158	12.9%	13.0%	3.7%	4.5%
Bloomberg Aggregate				-0.3%	2.2%
Below Investment Grade Fixed Income					
Loomis Sayles High Yield	81,949,988	3.5%	3.0%	12.9%	7.4%
PIMCO BRAVO II (4)	23,385,949	1.0%	1.0%	13.4%	N/A
Total Below Investment Grade Fixed	106,062,664	4.6%	4.0%	12.9%	8.2%
Bloomberg High Yield 2% Issuer Constrained Index				12.7%	6.9%
International Fixed Income Benchmark	121,140,506	5.2%	6.0%	0.8% -3.8%	1.2% -0.4%
UBS Global (ex-US) Bond Strategy	49,410,494	2.1%	3.0%	-4.0%	-0.9%
Brandywine Global Opportunistic Fixed In	71,730,012	3.1%	3.0%	4.4%	3.1%
Bloomberg Global Aggregate (ex-US)				-2.2%	0.8%
GLOBAL REAL ASSETS Benchmark	409,904,597	17.7%	18.0%	5.8% 4.8%	8.3% 7.3%
Global Real Estate					
Invesco Core Real Estate - U.S.A., L.P.	107,642,917			8.2%	11.6%
Invesco Real Estate Fund III, LP (4)	9,118,630			11.6%	15.9%
Invesco U.S. Value-Add Fund IV, L.P. (4)	18,515,749			8.1%	N/A
Invesco Asia Real Estate Fund III, L.P. (4)	9,065,653			21.3%	N/A
JP Morgan Strategic & Special Situation	82,488,291			7.1%	11.8%
JP Morgan European Opportunistic Prop	4,160,739			-0.5%	9.5%
JP Morgan Greater China Property Fund	6,594,582			37.8%	24.9%
Total Global Real Estate	237,904,250	10.3%	10.0%	9.1%	12.5%
NCREIF TOTAL INDEX				7.0%	10.5%
Timber					
TIR Teredo Timber, LLC	14,194,277	0.6%		-7.0%	5.7%
TIR Springbank, LLC	47,415,521	2.0%		-10.1%	-2.4%
Total Timber (4)	61,609,798	2.7%	3.0%	-9.4%	0.3%
NCREIF Timberland Index				3.3%	7.2%
Infrastructure					
JP Morgan Asian Infrastructure & Related	10,511,890	0.5%		35.5%	8.9%
JP Morgan Infrastructure Investments Fur	79,819,256	3.4%		6.3%	5.7%
Grosvenor Customized Infrastructure Stra	16,727,031	0.7%		8.7%	8.9%
Grosvenor Customized Infrastructure Stra	3,332,372	0.1%		3.3%	N/A
Total Infrastructure	110,390,549	4.8%	5.0%	9.2%	6.6%
CPI				1.5%	1.1%
Northern Trust Collective STIF	20,215,413			0.8%	0.2%
Bank of ND	7,039,112			N/A	N/A
Total Cash Equivalents	27,254,525	1.2%	1.0%	0.7%	0.2%
90 Day T-Bill				0.5%	0.2%

NOTE Monthly returns and market values are preliminary and subject to change.

TFFR Long Term Results are Near Long-Term Assumptions

ND RETIREMENT AND INVESTMENT OFFICE
 ND STATE INVESTMENT BOARD
 INVESTMENT PERFORMANCE SUMMARY
 AS OF JUNE 30, 2017

Investment Performance (net of fees)

Fund Name	Quarter Ended				FYTD 2017	Fiscal Years ended June 30					Periods ended 6/30/17 (annualized)				
	9/30/16	12/31/16	3/31/17	6/30/17		2016	2015	2014	2013	2012	3 Years	5 Years	15 Years	25 Years	30 Years
Teachers' Fund for Retirement	3.69%	0.43%	4.33%	3.94%	12.93%	0.28%	3.52%	16.53%	13.57%	-1.12%	5.44%	9.18%	7.03%	7.47%	7.84%

The TFFR Pension Plan is a Long Term Investor

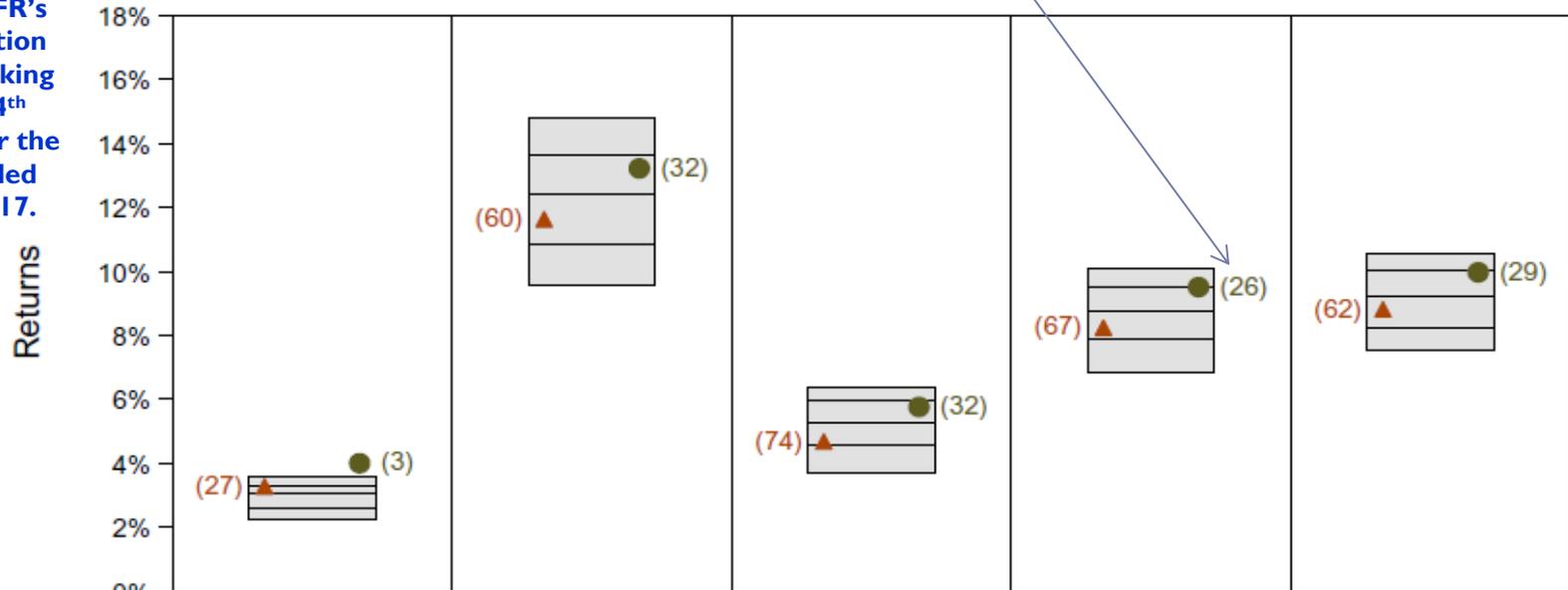
Net investment returns for the TFFR Pension Plan have approximated 7.84% for the last 30-years which is materially consistent with the plan's long term actuarial assumption of 7.75%.

TFFR's "gross" returns were ranked in the 26th percentile for the 5-years ended June 30, 2017, based on Callan's "Public Fund Sponsor Database".

CAI Public Fund Sponsor Database

NOTE: TFFR's asset allocation adjusted ranking is in the 14th percentile for the 5-years ended June 30, 2017.

Unadjusted Ranking

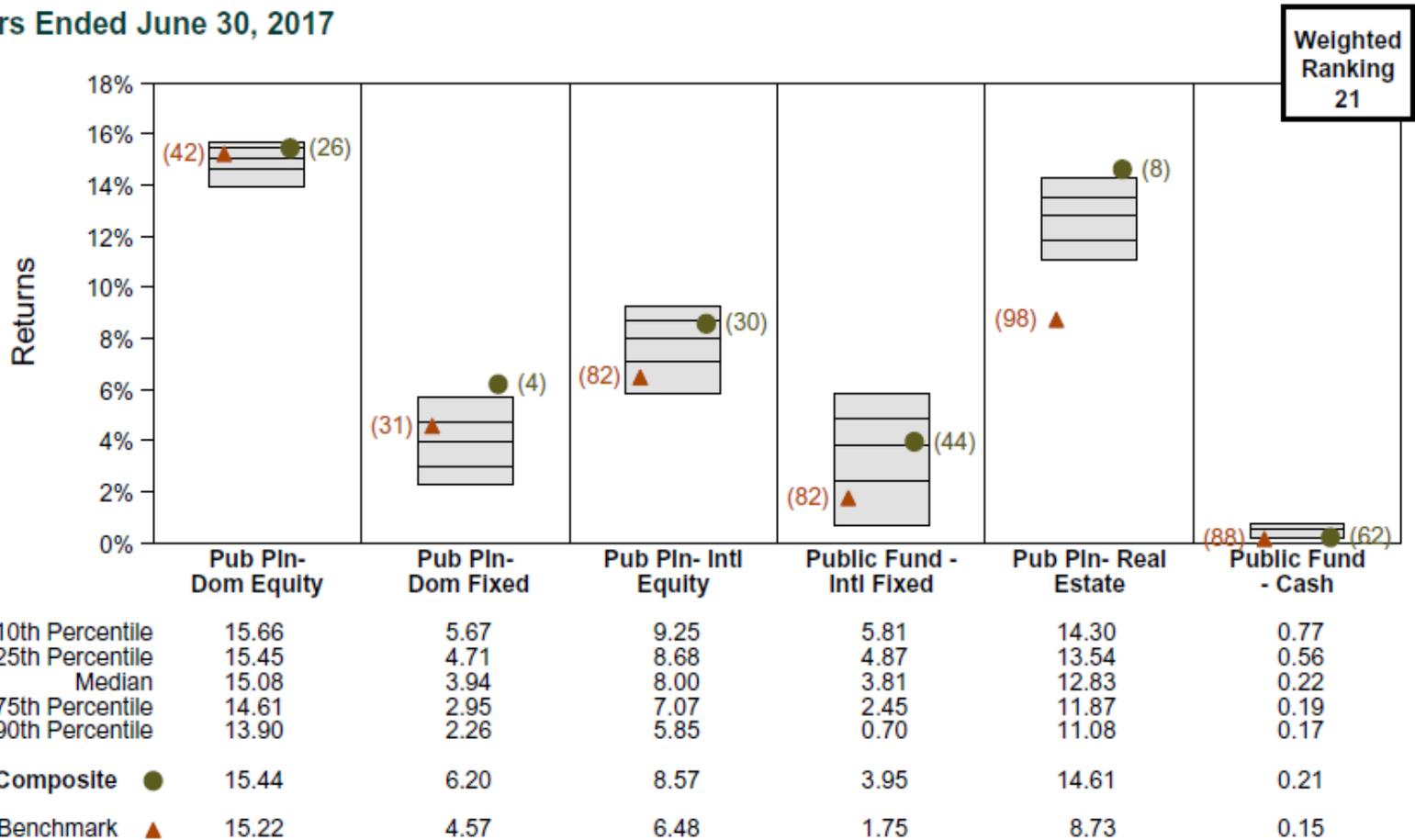


	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
10th Percentile	3.57	14.82	6.37	10.09	10.59
25th Percentile	3.31	13.62	5.95	9.53	10.04
Median	3.04	12.42	5.30	8.78	9.24
75th Percentile	2.62	10.86	4.56	7.86	8.22
90th Percentile	2.23	9.59	3.73	6.82	7.53
Total Fund ●	4.00	13.22	5.76	9.51	9.97
Policy Target ▲	3.28	11.63	4.69	8.25	8.82

* Current Quarter Target = 16.6% Russell 1000 Index, 16.0% MSCI World, 13.0% Blmbg Aggregate, 11.8% MSCI World ex US, 10.0% NCREIF Total Index, 6.0% Blmbg Glob Agg ex USD, 6.0% NDSIB TFFR - Private Equity, 5.0% CPI-W, 4.8% Russell 2000 Index, 4.0% Blmbg HY 2% Iss Cap, 3.0% NCREIF Timberland Index, 2.8% MSCI EM and 1.0% 3-month Treasury Bill.

TFFR managers performed well in the public markets over the last 7 years, but have been challenged in private equity and timber.

Total Asset Class Performance
Seven Years Ended June 30, 2017



NOTE: SIB utilizes the private markets to invest in real estate, infrastructure and timber (in addition to private equity and private debt).

NDSIB Watch List

Data as of 06/30/2017

Note: Return data is gross of fee due to data availability.

JP Morgan MBS (Pen.)		\$131,206,979	
	Returns	Index ¹	Excess
1 Year	0.82	(0.06)	0.87
Inception*	2.76	2.30	0.46

*Funded 09/30/2014

1 – Bloomberg Mortgage Backed Market Index

UBS International Fixed (Pen.)		\$105,946,147	
	Returns	Index ²	Excess
1 Year	(3.69)	(3.80)	0.10
3 Year	(2.44)	(2.42)	(0.01)
Inception*	5.93	5.64	0.29

*Funded 07/01/1989

2 – Bloomberg Global Aggregate ex-U.S. Fixed Income Index

UPDATE:

The SIB confirmed RIO's recommendation to keep JPMorgan's Agency MBS strategy (\$131 million) and the UBS International Fixed Income mandate (\$106 million) on Watch at the August 25, 2017 board meeting.

The SIB removed Adams Street Partners from Watch on April 28, 2017, following transparency enhancement initiatives implemented during the fourth quarter of 2016 and first quarter of 2017. PIMCO was removed from Watch on August 25, 2017, after RIO conducted extensive onsite due diligence during the past six months. PIMCO was originally placed on Watch in September of 2014 following the resignation of former CIO and co-founder Bill Gross. Recent staff meetings with PIMCO's current CEO Emmanuel Roman and Group CIO Dan Ivascyn confirm RIO's belief that PIMCO has successfully emerged from the post-Bill Gross era noting that firm level assets have stabilized at \$1.6 trillion. Callan concurs with these watch list recommendations and was instrumental in providing valuable market insight and investment research.

TFFR Activity from June 30, 2016 to June 30, 2017

			\$ millions	
Net Investment Position - June 30. 2016			\$2,124	a
Benefit Payments	b	(\$197)		
Contributions	c	\$168		
Net Contributions	(b-c)		(\$29)	d
Investment Earnings	e	\$280		
Investment Expenses	f	(\$13)		
Net Investment Earnings	(e-f)		\$267	g
Administrative Expenses			(\$2)	h
Net Investment Position - June 30. 2017			<u>\$2,360</u>	i
Change in Net Investment Position	(i - a)		<u>\$236</u>	j

TFFR's Net Position improved by \$236 million (j) last year as Benefit Payments of \$197 million (b) exceeded Contributions of \$168 million (c) by \$29 million (d), while Net Investment Earnings (g) were \$267 million (after investment expenses).

The SIB and RIO have been working to restructure the fixed income allocation within the Pension Trust during the past year. The following three pages provide an overview of the fixed income restructuring plan as shared with the SIB in recent board meetings.

Fixed Income Restructuring Overview

August 25, 2017

Dave Hunter, Darren Schulz and Eric Chin

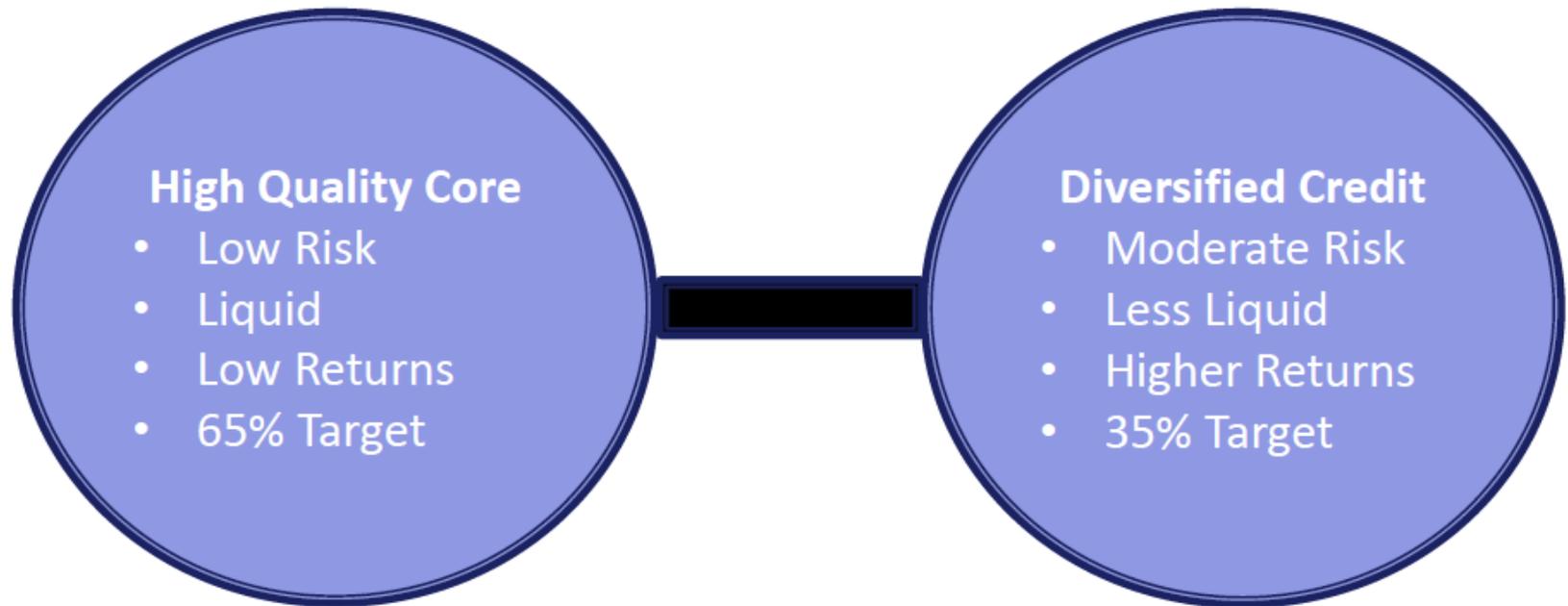
Pension Trust Fixed Income Structure

- ▶ Evolving fixed income landscape and stage of credit cycle merited a review of the Pension Trust's current fixed income manager structure
- ▶ In January, Staff presented a conceptual framework encompassing the following changes:
 - ➔ Increasing anchor of high quality, low risk, highly liquid U.S. investment grade core fixed income aka "High Quality Core"
 - ➔ Diversifying traditional non-investment grade with high yield/loan alternatives and private credit aka "Diversified Credit"
 - ➔ Transitioning non-U.S./global developed fixed income into U.S. centric fixed income

Fixed Income Structure Proposal

Initially discussed at the Jan. 2017 Board Meeting

- Barbelled approach



- Increase allocation to investment grade instruments
- Reallocate current investment grade assets into two Core Bond mandates—allow managers to tactically shift allocations across investment grade assets

Higher Expected Risk-Adjusted Returns

PENSION TRUST - Fixed Income Only				
Fixed Income Restructuring to Improve Returns and Reduce Risk				
CURRENT	Target	Projected	Projected	
Pension Trust	<u>Allocation</u>	<u>Return</u>	<u>Risk</u>	
U.S. Investment Grade (IG)	13.3%	3.0%	3.8%	
U.S. High Yield Debt (HY)	4.6%	4.8%	10.4%	
International Debt	5.4%	1.4%	9.2%	
Fixed Income	<u>23.3%</u> (1)	3.0% (1)	6.3% (3)	
				\$5,299 Pension \$
PROPOSED	Target	Projected	Projected	
Pension Trust	<u>Allocation</u>	<u>Return</u>	<u>Risk</u>	<u>\$5.3 billion</u>
U.S. Investment Grade (IG)	16.3%	3.0%	3.8%	\$864
Diversified Credit (DC)	7.0%	4.8%	10.4%	\$371
International Debt (a)	0.0%	1.4%	9.2%	\$0
Fixed Income	<u>23.3%</u> (2)	3.5% (2)	5.7% (4)	<u>\$1,235</u>
RIO's Fixed Income Recommendation:				
If International Debt (a) is eliminated while U.S. Investment Grade and Diversified Credit are increased by 3% and 2.4%, respectively, Projected Return would increase from 3.0% (1) to 3.5% (2), while Projected Risk would decline from 6.3% (3) to 5.7% (4).				
Key Point: RIO's Recommendation Increases Projected Returns 0.5% and Decreases Projected Risk 0.6% of "Fixed Income" in the Pension Trust.				

TFFR Investment Policy Statement Review - Sep. 21, 2017

I. PLAN CHARACTERISTICS AND FUND CONSTRAINTS.

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

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

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

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

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

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

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:

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

The Board acknowledges the material impact that funding the pension plan has on the State/School District's financial performance. These goals affect the Fund's investment strategies and of ten 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.

TFFR Investment Policy Statement Review - Sep. 21, 2017

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 OBJECTIVES

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

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

Board Action Requested

TFFR Investment Policy Statement Review - Sep. 21, 2017

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 (%)	Rebalancing Range (%)
Global Equity	58	46-65
Public Equity	52	44-60
U.S.	29	23-35
Global ex-U.S.	23	18-28
Private Equity	6	4-8
Global Fixed Income	23	16-30
Investment Grade	19 16	14-24 11-21
Non-Investment Grade	4 7	2-6 5-9
Global Real Assets	18	12-24
Global Real Estate	10	5-15
Other	8	0-12
Infrastructure		0-10
Timber		0-5
Commodities		0-5
Inflation Linked-Bonds		0-10
Other Inflation Sensitive Strategies		0-5
Global Alternatives		0-10
Cash	1	0-2

The Total Fixed Income allocation of 23% remains constant, but Investment Grade is reduced to 16% (from 19%) while Non-Investment Grade is raised to 7% (from 4%). The Rebalancing Range will remain at +/- 5% for IG and +/- 2% for NIG.

RIO recommends TFFR approve the Fixed Income allocation for Investment Grade (IG) be reduced to 16% (from 19%) and Non-Investment Grade (NIG) be increased to 7% (from 4%). This recommendation will reduce expected risk and increase expected return by eliminating International Fixed Income which has high expected volatility and a low expected return for the next 5-to-10 years (based on Callan's Capital Market Assumptions as well as many other consultants). A supporting example is provided on page 18.

TFFR Investment Policy Statement Review - Sep. 21, 2017

While the Board recognizes fluctuations in market values will lead to short-term deviations from policy targets, the Board does not intend to engage in tactical asset allocation. Allocations to Global Alternatives will result in pro-rata reduction in the policy targets.

7. RESTRICTIONS

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

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

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

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

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

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

- 1) The cost does not exceed the fair market value at the time of investment.
- 2) The investment provides the Fund with an equivalent or superior rate of return for a similar investment with a similar time horizon and similar 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.

TFFR Investment Policy Statement Review - Sep. 21, 2017

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:

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

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**

Approved by SIB: November 18, 2011, February 26, 2016, **September 22, 2017**

ND Teachers' Fund For Retirement

ND State Investment Board

Date: _____

Date: _____

Appendix of Supporting Materials

TFFR Update as of June 30, 2017

Callan's Quarterly Reports of investment performance are available on the following web address:
<http://www.nd.gov/rio/SIB/Board/SIB%20Meeting%20Materials/2017-08-25.pdf>

Board members can review monthly manager level performance using the following web address:
http://www.nd.gov/rio/RIO_ref/performance/TFFR/201706.pdf

ND TEACHERS FUND FOR RETIREMENT
INVESTMENT PERFORMANCE REPORT AS OF JUNE 30, 2017

	June-17				March-17				December-16				September-16				Current Fiscal YTD		Prior Year FY16		3 Years Ended 6/30/2017		5 Years Ended 6/30/2017						
	Allocation				Allocation				Allocation				Allocation				Gross (%)	Net	Gross (%)	Net	Gross (%)	Net	Gross (%)	Net					
	Market Value	Actual	Policy	Gross (%)	Net	Market Value	Actual	Policy	Gross (%)	Net	Market Value	Actual	Policy	Gross (%)	Net	Market Value									Actual	Policy	Gross (%)	Net	
TOTAL FUND	2,918,214,384	100.0%	100.0%	4.00%	3.84%	2,238,877,182	100.0%	100.0%	4.38%	4.33%	2,147,674,446	100.0%	100.0%	0.48%	0.43%	2,144,638,866	100.0%	100.0%	3.77%	3.88%	13.22%	12.92%	0.81%	0.27%	6.78%	6.44%	8.61%	8.18%	
POLICY TARGET BENCHMARK				3.20%	3.20%				3.76%	3.79%				0.63%	0.63%				3.62%	3.62%	11.63%	11.63%	0.61%	0.61%	4.69%	4.69%	8.26%	8.26%	
ATTRIBUTION ANALYSIS																													
Asset Allocation				-0.08%	-0.08%				0.22%	0.22%				0.00%	0.00%				0.11%	0.11%	0.27%	0.27%	-0.08%	-0.08%	0.04%	0.04%	0.08%	0.08%	
Manager Selection				0.80%	0.74%				0.40%	0.34%				-0.14%	-0.21%				0.14%	0.08%	1.33%	1.02%	0.89%	-0.27%	1.03%	0.71%	1.18%	0.84%	
TOTAL RELATIVE RETURN				0.73%	0.66%				0.64%	0.58%				-0.14%	-0.20%				0.25%	0.17%	1.60%	1.29%	0.00%	-0.34%	1.08%	0.75%	1.26%	0.93%	
GLOBAL EQUITIES	1,354,907,884	58.4%	58.0%	4.76%	4.70%	1,313,710,090	58.8%	58.0%	6.11%	6.06%	1,255,209,367	58.4%	58.0%	1.07%	1.61%	1,254,455,883	58.0%	58.0%	5.39%	5.30%	19.10%	18.81%	-3.62%	-3.33%	6.92%	6.60%	11.65%	11.30%	
Benchmark				52.0%	4.44%	4.44%			52.0%	5.48%	5.48%			52.0%	2.37%	2.37%			52.0%	5.13%	5.13%	18.58%	18.58%	-3.78%	-3.78%	6.04%	5.04%	10.80%	10.80%
Epoch Global Choice (1)	172,947,709	7.5%	7.0%	6.32%	6.15%	162,998,737	7.3%	7.0%	8.70%	8.53%	150,417,380	7.0%	7.0%	-1.26%	-1.42%	152,651,114	7.1%	7.0%	3.15%	2.98%	17.71%	16.96%	-6.53%	-6.53%	6.33%	5.65%	11.43%	10.71%	
LSV Global Value Equity	215,615,694	9.3%	9.0%	3.67%	3.65%	208,125,148	9.3%	9.0%	5.73%	5.71%	211,090,037	9.8%	9.0%	5.45%	5.42%	200,320,851	9.3%	9.0%	6.84%	6.74%	23.50%	23.29%	-7.05%	-7.85%	5.38%	4.70%	N/A	N/A	
Total Global Equities	388,688,403	18.8%	18.0%	4.83%	4.76%	371,123,888	18.8%	18.0%	8.89%	8.81%	381,607,417	18.8%	18.0%	2.66%	2.46%	362,871,976	18.6%	18.0%	6.21%	6.08%	21.01%	20.67%	-6.69%	-7.27%	6.78%	6.10%	11.30%	10.82%	
MSCI World				4.03%	4.03%				6.38%	6.38%				1.86%	1.86%				4.87%	4.87%	18.20%	18.20%	-2.78%	-2.78%	6.24%	5.24%	11.38%	11.38%	
Domestic - broad Benchmark	521,098,204	22.6%	21.6%	3.03%	3.00%	516,997,758	23.1%	21.6%	4.85%	4.81%	497,561,442	23.2%	21.6%	4.14%	4.10%	488,445,807	22.8%	21.6%	4.30%	4.17%	17.35%	17.07%	2.02%	1.90%	9.16%	8.97%	15.10%	14.85%	
				2.94%	2.94%				5.22%	5.22%				4.98%	4.98%				5.16%	5.16%	19.56%	19.56%	0.72%	0.72%	8.90%	8.90%	14.51%	14.51%	
Large Cap Domestic	151,593,528	6.5%	6.6%	3.68%	3.63%	152,781,521	6.8%	6.6%	6.62%	6.57%	143,547,523	6.7%	6.6%	1.04%	0.99%	144,396,879	6.7%	6.6%	3.76%	3.71%	15.90%	15.66%	5.17%	4.95%	11.18%	10.95%	15.50%	15.27%	
LA Capital Large Cap Growth				4.67%	4.67%				8.91%	8.91%				1.01%	1.01%				4.68%	4.68%	20.42%	20.42%	3.02%	3.02%	11.11%	11.11%	15.30%	15.30%	
Russell 1000 Growth																													
LA Capital 60% Large Cap/40% Large Cap Active Extension	88,118,825	3.8%	3.3%	2.45%	2.42%	86,847,540	3.9%	3.3%	4.52%	4.50%	87,034,873	4.1%	3.3%	4.54%	4.52%	89,134,357	4.2%	3.3%	3.23%	3.20%	15.56%	15.44%	6.04%	5.92%	9.88%	9.75%	14.96%	14.81%	
Russell 1000				3.06%	3.06%				6.03%	6.03%				3.83%	3.83%				4.03%	4.03%	18.03%	18.03%	2.94%	2.94%	9.26%	9.26%	14.67%	14.67%	
NTAM - Quant Enhanced S&P 500	73,562,333	3.2%	3.3%	2.11%	2.11%	72,716,447	3.3%	3.3%	4.94%	4.94%	69,380,257	3.2%	3.3%	4.22%	4.22%	67,625,212	3.2%	3.3%	4.32%	4.32%	16.51%	16.51%	1.76%	1.76%	8.00%	7.88%	14.59%	14.28%	
Clifton Group Enhanced S&P 500	84,523,832	3.6%	3.3%	3.19%	3.19%	84,835,510	3.8%	3.3%	5.96%	5.96%	80,164,710	3.7%	3.3%	3.88%	3.88%	78,389,532	3.7%	3.3%	3.86%	3.65%	17.97%	17.72%	4.60%	4.60%	9.85%	9.77%	14.76%	14.70%	
S&P 500				3.09%	3.09%				6.07%	6.07%				3.88%	3.88%				3.88%	3.88%	17.90%	17.90%	3.99%	3.99%	9.61%	8.61%	14.73%	14.63%	
Total Large Cap Domestic	397,798,620	17.2%	18.8%	3.02%	3.00%	387,181,418	17.8%	18.8%	6.70%	6.67%	380,127,368	17.7%	18.8%	2.89%	2.87%	379,646,980	17.7%	18.8%	3.78%	3.89%	18.38%	18.20%	4.80%	4.62%	10.06%	9.80%	15.48%	15.31%	
Russell 1000 (2)				3.06%	3.06%				6.03%	6.03%				3.83%	3.83%				4.03%	4.03%	18.03%	18.03%	2.94%	2.94%	9.26%	9.26%	14.67%	14.67%	
Small Cap Domestic	55,931,631	2.4%	2.4%	3.65%	3.45%	53,775,685	2.4%	2.4%	1.71%	1.52%	52,969,423	2.5%	2.4%	7.24%	7.03%	49,543,798	2.3%	2.4%	2.46%	2.28%	15.83%	14.98%	N/A	N/A	N/A	N/A	N/A	N/A	
Atlanta Capital Small Cap Equity Fund	67,708,062	2.9%	2.4%	2.61%	2.61%	66,040,655	3.0%	2.4%	2.44%	2.44%	64,464,656	3.0%	2.4%	8.73%	8.73%	59,356,029	2.8%	2.4%	9.35%	8.88%	24.97%	24.44%	-6.49%	-6.95%	8.31%	7.89%	14.75%	14.25%	
Clifton Group Enhanced Russell 2000	123,288,884	6.3%	4.8%	3.07%	2.99%	119,818,941	6.4%	4.8%	2.11%	2.09%	117,434,079	6.6%	4.8%	8.04%	7.86%	108,888,827	6.1%	4.8%	8.18%	8.66%	20.74%	20.08%	-8.88%	-7.04%	6.86%	6.82%	13.68%	13.08%	
Russell 2000				2.46%	2.46%				2.47%	2.47%				8.83%	8.83%				9.05%	9.05%	24.60%	24.60%	-6.73%	-6.73%	7.36%	7.36%	13.70%	13.70%	
International - broad Benchmark	368,289,982	16.9%	14.6%	6.87%	6.53%	354,113,055	16.9%	14.6%	8.67%	8.62%	328,002,762	15.2%	14.6%	-3.00%	-3.04%	341,192,040	16.9%	14.6%	8.04%	8.00%	21.37%	21.17%	-7.72%	-7.91%	2.94%	2.74%	9.70%	9.36%	
				6.76%	6.76%				7.69%	7.69%				-1.09%	-1.09%				6.81%	6.81%	20.33%	20.33%	-10.38%	-10.38%	1.04%	1.04%	7.74%	7.74%	
Developed International	136,865,616	5.9%	5.9%	5.80%	5.80%	132,151,523	5.9%	5.9%	6.94%	6.93%	123,582,002	5.8%	5.9%	-0.32%	-0.33%	123,966,351	5.8%	5.9%	6.35%	6.34%	19.94%	19.92%	-9.50%	-9.54%	1.04%	1.01%	N/A	N/A	
NTAM - MSCI World ex-US Index				6.63%	6.63%				6.81%	6.81%				-0.36%	-0.36%				6.29%	6.29%	19.49%	19.49%	-8.84%	-8.84%	0.67%	0.67%			
MSCI World Ex US																													
William Blair International Leaders	66,451,831	2.9%	3.5%	7.82%	7.83%	61,935,796	2.8%	3.5%	7.65%	7.55%	57,589,903	2.7%	3.5%	-5.89%	-5.99%	61,246,555	2.9%	3.5%	9.89%	9.86%	20.15%	19.77%	N/A	N/A	N/A	N/A	N/A	N/A	
MSCI ACWI ex-US IM (Net)				6.86%	6.86%				7.99%	7.99%				-1.67%	-1.67%				7.06%	7.06%	20.43%	20.43%							
DFA Int. Small Cap Value Portfolio (4)	39,838,153	1.7%	1.2%	6.33%	6.33%	39,805,975	1.8%	1.2%	7.73%	7.73%	36,950,203	1.7%	1.2%	1.71%	1.71%	36,320,154	1.7%	1.2%	10.54%	10.54%	28.80%	28.80%	-9.28%	-9.28%	4.16%	4.16%	14.04%	13.77%	
Wellington International Small Cap Opportunities	44,342,517	1.9%	1.2%	8.28%	8.07%	41,234,791	1.8%	1.2%	9.82%	9.60%	37,624,271	1.8%	1.2%	-4.94%	-5.15%	39,657,857	1.8%	1.2%	6.71%	6.47%	20.62%	19.62%	1.90%	1.06%	7.31%	6.42%	15.04%	14.12%	
S&P/Cliftongroup BM EPAC < \$2BN				7.33%	7.33%				7.79%	7.79%				-1.61%	-1.61%				7.90%	7.90%	20.89%	20.89%	-3.37%	-3.37%	6.71%	6.71%	12.00%	12.00%	
Total Developed International	287,488,117	12.4%	11.8%	8.73%	8.88%	276,128,068	12.9%	11.8%	7.84%	7.68%	266,748,378	11.9%	11.8%	-2.06%	-2.10%	281,180,917	12.2%	11.8%	7.78%	7.74%	21.30%	21.06%	-7.88%	-7.82%	2.78%	2.61%	10.89%	10.27%	
MSCI World Ex US (3)				6.63%	6.63%				6.81%	6.81%				-0.36%	-0.36%				6.29%	6.29%	19.49%	19.49%	-10.16%	-10.16%	0.93%	0.93%	8.65%	8.65%	
Emerging Markets	61,162,340	2.6%	2.1%	7.39%	7.39%	57,635,485	2.6%	2.1%	11.56%	11.56%	51,663,288	2.4%	2.1%	-6.47%	-6.47%	59,463,257	2.8%	2.1%	9.13%	9.13%	22.29%	22.29%	-10.32%	-10.32%	N/A	N/A	N/A	N/A	
Axiom Emerging Markets Equity Fund (4)	19,609,505	0.8%	0.7%	2.28%	2.28%	21,349,484	1.0%	0.7%	14.82%	14.82%	18,593,096	0.9%	0.7%	-5.92%	-5.92%	20,537,865	1.0%	0.7%	8.18%	8.18%	19.53%	19.53%	-6.64%	-6.64%	3.49%	3.49%	7.14%	6.66%	
DFA Emerging Markets Small Cap Portfolio (4)	80,771,846	3.6%	2.8%	8.00%	8.00%	78,984,988	3.6%	2.8%	12.42%	12.42%	70,268,38																		

ND TEACHERS FUND FOR RETIREMENT
INVESTMENT PERFORMANCE REPORT AS OF JUNE 30, 2017

	June-17					March-17					December-16					September-16					Current Fiscal YTD		Prior Year FY16		3 Years Ended 6/30/2017		5 Years Ended 6/30/2017			
	Market Value	Allocation				Market Value	Allocation				Market Value	Allocation				Market Value	Allocation				Gross (%)	Net	Gross (%)	Net	Gross (%)	Net	Gross (%)	Net	Gross (%)	Net
		Actual	Policy	Gross (%)	Net		Actual	Policy	Gross (%)	Net		Actual	Policy	Gross (%)	Net		Actual	Policy	Gross (%)	Net										
Private Equity																														
Adams Street-Birsson 1998 Partnership Fund	57,940	0.0%	0.79%	0.78%	57,392	0.0%	-0.44%	-0.44%	57,646	0.0%	-0.16%	-0.16%	57,738	0.0%	-0.33%	-0.33%	-0.16%	-0.16%	4.14%	4.14%	1.08%	1.08%	4.12%	4.12%	1.08%	1.08%	4.12%	4.12%		
Adams Street-Birsson 1999 Partnership Fund	155,251	0.0%	3.55%	3.55%	149,933	0.0%	-2.15%	-2.15%	153,221	0.0%	2.13%	2.13%	150,032	0.0%	-3.50%	-3.50%	-0.25%	-0.25%	12.03%	12.03%	-2.85%	-2.85%	3.36%	3.36%	-2.85%	-2.85%	3.36%	3.36%		
Adams Street-Birsson 2000 Partnership Fund	255,045	0.0%	2.86%	2.86%	432,644	0.0%	-0.50%	-0.50%	434,719	0.0%	0.84%	0.84%	430,556	0.0%	-0.30%	-0.30%	3.00%	3.00%	-1.75%	-1.75%	-3.33%	-3.33%	0.71%	0.71%	-3.33%	-3.33%	0.71%	0.71%		
Adams Street-Birsson 2001 Partnership Fund	612,289	0.0%	4.37%	4.37%	586,640	0.0%	-3.53%	-3.53%	608,100	0.0%	0.47%	0.47%	607,936	0.0%	-1.49%	-1.49%	7.59%	7.59%	-10.11%	-10.11%	-1.19%	-1.19%	5.31%	5.31%	-1.19%	-1.19%	5.31%	5.31%		
Adams Street-Birsson 2002 Partnership Fund	195,208	0.0%	2.55%	2.55%	152,319	0.0%	0.04%	0.04%	152,265	0.0%	16.92%	16.92%	134,875	0.0%	0.54%	0.54%	15.66%	15.66%	9.43%	9.43%	1.75%	1.75%	5.99%	5.99%	1.75%	1.75%	5.99%	5.99%		
Adams Street-Birsson 2003 Partnership Fund	132,584	0.0%	5.79%	5.79%	146,682	0.0%	-1.10%	-1.10%	148,309	0.0%	6.92%	6.92%	139,401	0.0%	0.12%	0.12%	11.44%	11.44%	-2.55%	-2.55%	7.19%	7.19%	11.45%	11.45%	7.19%	7.19%	11.45%	11.45%		
Total Adams Street-Birsson Partnership Funds	1,369,317	0.1%	3.76%	3.76%	1,525,510	0.1%	-1.85%	-1.85%	1,554,260	0.1%	6.45%	6.45%	1,607,537	0.1%	-0.85%	-0.85%	7.49%	7.49%	-1.98%	-1.98%	-0.71%	-0.71%	4.31%	4.31%	-0.71%	-0.71%	4.31%	4.31%		
Adams Street-Birsson 1999 Non-US Partnership Fund	32,065	0.0%	3.72%	3.72%	30,915	0.0%	-2.30%	-2.30%	31,644	0.0%	9.08%	9.08%	29,009	0.0%	-8.08%	-8.08%	1.60%	1.60%	13.44%	13.44%	0.03%	0.03%	6.19%	6.19%	0.03%	0.03%	6.19%	6.19%		
Adams Street-Birsson 2000 Non-US Partnership Fund	244,514	0.0%	4.75%	4.75%	233,431	0.0%	4.25%	4.25%	238,417	0.0%	0.17%	0.17%	237,829	0.0%	3.37%	3.37%	13.07%	13.07%	-7.68%	-7.68%	-0.25%	-0.25%	0.63%	0.63%	-0.25%	-0.25%	0.63%	0.63%		
Adams Street-Birsson 2001 Non-US Partnership Fund	74,826	0.0%	10.18%	10.18%	67,913	0.0%	-0.88%	-0.88%	68,518	0.0%	-11.28%	-11.28%	77,233	0.0%	-1.30%	-1.30%	-4.37%	-4.37%	23.36%	23.36%	11.33%	11.33%	14.86%	14.86%	11.33%	11.33%	14.86%	14.86%		
Adams Street-Birsson 2002 Non-US Partnership Fund	231,215	0.0%	3.27%	3.27%	316,362	0.0%	-4.49%	-4.49%	330,173	0.0%	-3.54%	-3.54%	472,741	0.0%	-0.16%	-0.16%	-5.01%	-5.01%	28.09%	28.09%	4.42%	4.42%	5.43%	5.43%	4.42%	4.42%	5.43%	5.43%		
Adams Street-Birsson 2003 Non-US Partnership Fund	148,958	0.0%	4.87%	4.87%	142,040	0.0%	11.46%	11.46%	127,434	0.0%	5.28%	5.28%	267,555	0.0%	2.82%	2.82%	26.53%	26.53%	18.08%	18.08%	13.54%	13.54%	18.17%	18.17%	13.54%	13.54%	18.17%	18.17%		
Adams Street-Birsson 2004 Non-US Partnership Fund	147,355	0.0%	6.83%	6.83%	137,939	0.0%	-4.88%	-4.88%	145,022	0.0%	3.48%	3.48%	193,082	0.0%	4.05%	4.05%	9.42%	9.42%	-8.26%	-8.26%	-2.02%	-2.02%	7.06%	7.06%	-2.02%	-2.02%	7.06%	7.06%		
Total Adams Street-Birsson Non-US Partnership Funds	878,934	0.0%	5.12%	5.12%	927,600	0.0%	0.10%	0.10%	1,041,208	0.0%	-0.61%	-0.61%	1,377,449	0.1%	0.61%	0.61%	5.22%	5.22%	10.65%	10.65%	3.61%	3.61%	7.82%	7.82%	3.61%	3.61%	7.82%	7.82%		
Adams Street 2008 Non-US Partnership Fd	3,578,085	0.2%	8.34%	8.34%	3,475,344	0.2%	0.01%	0.01%	3,474,882	0.2%	6.75%	6.75%	3,322,875	0.2%	0.00%	0.00%	15.67%	15.67%	11.84%	11.84%	11.65%	11.65%	12.86%	12.86%	11.65%	11.65%	12.86%	12.86%		
Adams Street-Birsson BVCF IV	1,593,458	0.1%	4.54%	4.54%	1,524,250	0.1%	-0.01%	-0.01%	1,789,584	0.1%	3.23%	3.23%	1,733,599	0.1%	0.00%	0.00%	7.91%	7.91%	-1.65%	-1.65%	14.68%	14.68%	18.81%	18.81%	14.68%	14.68%	18.81%	18.81%		
Adams Street Direct Co-Investment Fund	1,506,091	0.1%	-0.99%	-0.99%	1,521,119	0.1%	-9.94%	-9.94%	1,311,337	0.1%	7.53%	7.53%	1,136,989	0.1%	0.00%	0.00%	-4.11%	-4.11%	8.30%	8.30%	8.35%	8.35%	11.03%	11.03%	8.35%	8.35%	11.03%	11.03%		
Adams Street 2010 - Direct Fund	474,996	0.0%	7.99%	7.99%	432,056	0.0%	-2.88%	-2.88%	534,752	0.0%	6.82%	6.82%	564,062	0.0%	0.00%	0.00%	12.03%	12.03%	7.48%	7.48%	8.00%	8.00%	11.92%	11.92%	8.00%	8.00%	11.92%	11.92%		
Adams Street 2010 - Non-US Emerging Mkts	662,232	0.0%	4.09%	4.09%	636,188	0.0%	0.60%	0.60%	632,383	0.0%	5.16%	5.16%	594,312	0.0%	0.00%	0.00%	10.13%	10.13%	10.50%	10.50%	14.02%	14.02%	7.90%	7.90%	14.02%	14.02%	7.90%	7.90%		
Adams Street 2010 - Non-US Developed Mkts	1,449,838	0.1%	9.68%	9.68%	1,321,834	0.1%	1.53%	1.53%	1,350,555	0.1%	9.22%	9.22%	1,192,699	0.1%	0.00%	0.00%	21.63%	21.63%	9.63%	9.63%	9.34%	9.34%	10.70%	10.70%	9.34%	9.34%	10.70%	10.70%		
Adams Street 2010 - Partnership Fund	2,862,889	0.1%	3.66%	3.66%	2,817,711	0.1%	1.70%	1.70%	2,736,135	0.1%	9.20%	9.20%	2,538,773	0.1%	0.00%	0.00%	15.12%	15.12%	6.18%	6.18%	13.11%	13.11%	13.20%	13.20%	13.11%	13.11%	13.20%	13.20%		
Total Adams Street 2010 Funds	5,449,654	0.2%	5.63%	5.63%	5,207,789	0.2%	1.10%	1.10%	5,253,825	0.2%	8.43%	8.43%	4,889,846	0.2%	0.00%	0.00%	15.79%	15.79%	7.78%	7.78%	11.36%	11.36%	12.30%	12.30%	11.36%	11.36%	12.30%	12.30%		
Adams Street 2015 Global Fund	3,716,869	0.2%	5.17%	5.17%	2,912,486	0.1%	12.14%	12.14%	1,535,429	0.1%	28.68%	28.68%	1,193,203	0.1%	0.00%	0.00%	51.76%	51.76%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Adams Street 2016 Global Fund	980,111	0.0%	3.34%	3.34%	487,885	0.0%	41.27%	41.27%	345,367	0.0%	N/A	N/A	N/A	0.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Blackrock PEP	3,955,631	0.2%	-3.26%	-3.26%	2,177,505	0.1%	N/A	N/A	N/A	0.0%	N/A	N/A	N/A	0.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matlin Patterson - Global Opportunities II	532,809	0.0%	-10.52%	-10.52%	595,465	0.0%	-20.08%	-20.08%	745,041	0.0%	-0.49%	-0.49%	748,720	0.0%	0.00%	0.00%	-28.84%	-28.84%	7.27%	7.27%	-2.99%	-2.99%	-7.23%	-7.23%	-2.99%	-2.99%	-7.23%	-7.23%		
Matlin Patterson - Global Opportunities III	11,415,751	0.5%	6.35%	6.35%	12,245,967	0.5%	-0.93%	-0.93%	12,595,750	0.5%	1.41%	1.41%	12,420,383	0.5%	0.00%	0.00%	6.84%	6.84%	-5.66%	-5.66%	-0.56%	-0.56%	5.14%	5.14%	-0.56%	-0.56%	5.14%	5.14%		
InvestAmerica - Lewis and Clark Fund	747,284	0.0%	22.02%	22.02%	612,409	0.0%	0.00%	0.00%	612,409	0.0%	0.00%	0.00%	612,409	0.0%	0.00%	0.00%	22.02%	22.02%	-51.19%	-51.19%	-26.04%	-26.04%	-17.39%	-17.39%	-26.04%	-26.04%	-17.39%	-17.39%		
InvestAmerica - L&C II	4,199,104	0.2%	7.98%	7.98%	4,018,478	0.2%	2.64%	2.64%	4,114,905	0.2%	0.00%	0.00%	4,426,748	0.2%	0.00%	0.00%	10.83%	10.83%	1.88%	1.88%	-1.11%	-1.11%	N/A	N/A	-2.96%	-2.96%	N/A	N/A		
Corsair II	6,612,364	0.3%	3.05%	3.05%	6,416,801	0.3%	-2.62%	-2.62%	6,553,457	0.3%	6.91%	6.91%	6,168,124	0.3%	-0.42%	-0.42%	6.83%	6.83%	-34.22%	-34.22%	9.34%	9.34%	3.15%	3.15%	9.34%	9.34%	3.15%	3.15%		
Corsair III - ND Investors LLC	-	0.0%	N/A	N/A	-	0.0%	N/A	N/A	-	0.0%	N/A	N/A	-	0.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Corsair IV	11,077,258	0.5%	12.67%	12.67%	9,830,320	0.4%	2.84%	2.84%	9,643,268	0.4%	7.17%	7.17%	10,569,671	0.5%	-1.06%	-1.06%	22.98%	22.98%	-3.28%	-3.28%	15.91%	15.91%	14.40%	14.40%	15.91%	15.91%	14.40%	14.40%		
Capital International - Fund V	927,119	0.0%	-34.83%	-34.83%	2,382,408	0.1%	-8.92%	-8.92%	2,602,445	0.1%	-14.38%	-14.38%	3,496,742	0.2%	-0.60%	-0.60%	-49.48%	-49.48%	-25.52%	-25.52%	-31.17%	-31.17%	-20.15%	-20.15%	-31.17%	-31.17%				
Capital International - Fund VI	10,868,915	0.5%	10.27%	10.27%	9,856,369	0.4%	-0.62%	-0.62%	9,932,194	0.4%	1.05%	1.05%	9,961,340	0.4%	-0.87%	-0.87%	9.55%	9.55%	1.06%	1.06%	-4.65%	-4.65%	-8.71%	-8.71%	-4.65%	-4.65%	-8.71%	-8.71%		
BIG (Energy TCV)	2,808,759	0.1%	19.09%	19.09%	2,359,605	0.1%	12.39%	12.39%	2,058,551	0.1%	-15.90%	-15.90%	2,375,759	0.1%	-0.41%	-0.41%	12.15%	12.15%	-67.59%	-67.59%	-34.75%	-34.75%	-23.36%	-23.36%	-34.75%	-34.75%	-23.36%	-23.36%		
Quantum - Resources	-	0.0%	N/A	N/A	19,246	0.0%	N/A	N/A	19,246	0.0%	N/A	N/A	23,777	0.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Quantum - Energy Partners	3,693,126	0.2%	56.03%	56.03%	2,366,943	0.1%	0.00%	0.00%	3,259,659	0.2%	0.62%	0.62%	3,535,831	0.2%	7.24%	7.24%	68.38%	68.38%	-22.63%	-22.63%	1.68%	1.68%	10.37%	10.37%	1.68%	1.68%	10.37%	10.37%		
Total Private Equity (4)	78,878,916	3.3%	8.0%	7.70%	71,476,980	3.2%	8.0%	-1.18%	-1.18%	70,197,748	3.3%	8.0%	2.86%	2.86%	71,848,081	3.4%	8.0%	1.71%	1.71%	11.12%	11.12%									

ND TEACHERS FUND FOR RETIREMENT
INVESTMENT PERFORMANCE REPORT AS OF JUNE 30, 2017

	June-17				March-17				December-16				September-16				Current Fiscal YTD		Prior Year FY16		3 Years Ended 6/30/2017		5 Years Ended 6/30/2017							
	Allocation		Quarter		Allocation		Quarter		Allocation		Quarter		Allocation		Quarter		Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net						
	Market Value	Actual	Policy	Gross ⁽¹⁾	Net	Market Value	Actual	Policy	Gross ⁽¹⁾	Net	Market Value	Actual	Policy	Gross ⁽¹⁾	Net	Market Value									Actual	Policy	Gross ⁽¹⁾	Net		
International Fixed Income	121,140,608	6.2%	6.0%	4.06%	3.87%	116,674,866	6.2%	6.0%	3.87%	3.77%	112,731,109	6.2%	6.0%	-7.77%	-7.88%	122,868,321	6.7%	6.0%	1.47%	1.38%	1.16%	0.79%	7.88%	7.60%	-0.87%	-0.74%	1.80%	1.26%		
Benchmark				3.66%	3.66%				2.48%	2.48%				-10.26%	-10.26%				1.03%	1.03%	-3.80%	-3.80%	11.24%	11.24%	-2.43%	-2.43%	-0.36%	-0.36%		
Developed Investment Grade Int'l FI																														
UBS Global (ex-US) Bond Strategy	49,410,494	2.1%	3.0%	3.89%	3.81%	47,622,653	2.1%	3.0%	2.37%	2.28%	46,722,365	2.2%	3.0%	-10.50%	-10.58%	52,527,054	2.4%	3.0%	1.18%	1.10%	-3.69%	-4.00%	11.43%	11.07%	-2.44%	-2.78%	-0.55%	-0.86%		
Bloomberg Global Aggregate ex-US				3.66%	3.66%				2.48%	2.48%				-10.26%	-10.26%				1.03%	1.03%	-3.80%	-3.80%	11.24%	11.24%	-2.43%	-2.43%	-0.36%	-0.36%		
Brandywine Global Opportunistic Fixed Income	71,730,012	3.1%	3.0%	4.18%	4.09%	68,952,002	3.1%	3.0%	4.92%	4.82%	66,008,744	3.1%	3.0%	-5.74%	-5.83%	70,466,267	3.3%	3.0%	1.69%	1.59%	4.78%	4.38%	5.12%	4.73%	1.39%	1.00%	3.55%	3.15%		
Bloomberg Global Aggregate (ex-US)				2.60%	2.60%				1.76%	1.76%				-7.07%	-7.07%				0.82%	0.82%	-2.18%	-2.18%	8.87%	8.87%	-0.35%	-0.35%	0.77%	0.77%		
Total Developed Investment Grade Int'l FI	121,140,608	6.2%	6.0%	4.06%	3.87%	116,674,866	6.2%	6.0%	3.87%	3.77%	112,731,109	6.2%	6.0%	-7.77%	-7.88%	122,868,321	6.7%	6.0%	1.47%	1.38%	1.16%	0.79%	7.88%	7.60%	-0.87%	-0.74%	1.80%	1.26%		
Bloomberg Global Aggregate ex-US				3.66%	3.66%				2.48%	2.48%				-10.26%	-10.26%				1.03%	1.03%	-3.80%	-3.80%	11.24%	11.24%	-2.43%	-2.43%	-0.36%	-0.36%		
GLOBAL REAL ASSETS	409,904,697	17.7%	18.0%	3.30%	3.16%	388,616,369	17.4%	18.0%	1.38%	1.29%	392,624,613	18.3%	18.0%	0.62%	0.62%	388,841,956	18.1%	18.0%	0.78%	0.71%	6.20%	5.78%	8.37%	7.83%	8.02%	7.67%	8.74%	8.31%		
Benchmark				1.22%	1.22%				1.25%	1.25%				1.44%	1.44%				1.12%	1.12%	4.82%	4.82%	6.27%	6.27%	6.61%	6.61%	7.29%	7.29%		
Global Real Estate																														
Invesco Core Real Estate - U.S.A., L.P.	107,642,917			1.88%	1.79%	106,525,095			2.54%	2.45%	105,018,474			2.17%	2.08%	103,646,526			1.68%	1.59%	8.53%	8.16%	10.96%	10.59%	11.91%	11.52%	12.00%	11.58%		
INVESCO Real Estate Fund II (4)	78,677			3.30%	3.30%	76,163			22.17%	22.17%	62,504			-2.76%	-2.76%	2,218,919			0.00%	0.00%	22.72%	22.72%	6.65%	6.65%	11.61%	11.61%	14.46%	14.46%		
Invesco Real Estate Fund III, LP (4)	9,118,630			-2.76%	-2.76%	13,459,284			7.77%	7.77%	12,521,154			6.47%	6.47%	11,759,885			0.00%	0.00%	11.58%	11.58%	14.25%	14.25%	14.81%	14.81%	15.89%	15.89%		
Invesco U.S. Value-Add Fund IV, L.P. (4)	18,515,749			4.24%	4.24%	10,876,905			1.05%	1.05%	12,436,629			2.59%	2.59%	9,444,307			0.00%	0.00%	8.07%	8.07%	4.66%	4.66%	N/A	N/A	N/A	N/A		
Invesco Asia Real Estate Fund I, L.P. (4)	116,688			83.64%	83.64%	304,260			786.62%	786.62%	34,407			-31.45%	-31.45%	436,981			-3.02%	-3.02%	982.41%	982.41%	121.40%	121.40%	203.10%	203.10%	97.81%	97.81%		
Invesco Asia Real Estate Fund III, L.P. (4)	9,065,653			21.68%	21.68%	7,208,907			-3.05%	-3.05%	8,144,112			3.46%	3.46%	5,666,272			-0.64%	-0.64%	21.25%	21.25%	N/A	N/A	N/A	N/A	N/A	N/A		
JP Morgan Strategic & Special Situation Property Blend	82,488,291			1.70%	1.48%	81,916,586			1.97%	1.74%	81,410,501			2.18%	1.95%	79,575,261			1.97%	1.73%	8.05%	7.08%	12.25%	10.95%	11.64%	10.52%	12.91%	11.84%		
JP Morgan Alternative Property Fund	122,324			2.17%	2.17%	119,726			3.35%	3.35%	116,150			1.07%	1.07%	130,842			0.00%	0.00%	6.73%	6.73%	2.80%	2.80%	-9.88%	-9.88%	-2.55%	-2.57%		
JP Morgan European Opportunistic Property Fund III (4)	4,160,739			8.96%	8.96%	3,820,016			1.47%	1.47%	3,776,547			-11.05%	-11.05%	4,248,801			1.16%	1.16%	-0.51%	-0.51%	24.44%	24.44%	13.11%	13.11%	4.37%	5.48%		
JP Morgan Greater China Property Fund (4)	6,594,582			34.91%	34.91%	4,889,557			-1.11%	-1.11%	4,959,068			3.30%	3.30%	4,802,398			0.00%	0.00%	37.81%	37.81%	16.24%	16.24%	23.20%	23.20%	24.95%	24.95%		
Total Global Real Estate	237,804,260	10.3%	10.0%	3.82%	3.19%	228,180,488	10.3%	10.0%	2.38%	2.28%	228,479,648	10.8%	10.0%	2.14%	2.02%	222,030,182	10.4%	10.0%	1.48%	1.38%	8.86%	8.12%	11.98%	11.54%	12.44%	11.88%	13.01%	12.47%		
NCREIF TOTAL INDEX				1.76%	1.76%				1.65%	1.65%				1.73%	1.73%				1.77%	1.77%	6.97%	6.97%	10.64%	10.64%	10.77%	10.77%	10.49%	10.49%		
Timber																														
TIR Tereco Timber, LLC	14,194,277	0.6%		-1.75%	-1.75%	14,446,451	0.6%		-5.82%	-5.82%	15,668,845	0.7%		0.47%	0.47%	15,495,338	0.7%		0.00%	0.00%	-7.02%	-7.02%	9.29%	9.29%	5.49%	5.49%	5.75%	5.75%		
TIR Springbank, LLC	47,415,521	2.0%		-1.24%	-1.24%	48,594,997	2.2%		-1.15%	-1.15%	49,898,358	2.3%		-7.94%	-7.94%	54,414,955	2.5%		0.00%	0.00%	-10.13%	-10.13%	2.97%	2.97%	-3.20%	-3.20%	-2.37%	-2.37%		
Total Timber (4)	61,609,798	2.7%	3.0%	-1.36%	-1.36%	63,041,448	2.8%	3.0%	-2.28%	-2.28%	66,467,202	3.0%	3.0%	-8.07%	-8.07%	69,910,293	3.3%	3.0%	0.00%	0.00%	-8.44%	-8.44%	4.34%	4.34%	-0.80%	-0.80%	0.27%	0.27%		
NCREIF Timberland Index				0.70%	0.70%				0.76%	0.76%				1.18%	1.18%				0.67%	0.67%	3.35%	3.35%	3.39%	3.39%	5.64%	5.64%	7.16%	7.16%		
Infrastructure																														
JP Morgan Asian Infrastructure & Related Resources (4)	10,511,890	0.5%		1.12%	1.12%	10,424,891	0.5%		29.84%	29.84%	13,059,056	0.6%		3.69%	3.69%	12,700,195	0.6%		-0.47%	-0.47%	36.40%	35.48%	-0.60%	-0.66%	6.04%	6.04%	8.92%	8.92%		
JP Morgan Infrastructure Investments Fund (IF)	79,819,256	3.4%		6.87%	6.48%	66,727,103	3.0%		-1.41%	-1.57%	67,815,797	3.2%		1.62%	1.45%	64,407,161	3.0%		0.00%	0.00%	7.06%	6.33%	5.11%	3.93%	4.38%	3.45%	6.68%	5.72%		
Grosvenor Customized Infrastructure Strategies, LP (4)	16,727,031	0.7%		7.52%	7.52%	15,503,084	0.7%		-0.16%	-0.16%	15,176,580	0.7%		1.54%	1.54%	18,110,492	0.8%		-0.37%	-0.37%	8.70%	8.70%	8.42%	8.42%	7.49%	7.49%	8.94%	8.94%		
Grosvenor Customized Infrastructure Strategies II (4)	3,332,372	0.1%		5.35%	5.35%	3,622,334	0.2%		-1.35%	-1.35%	2,526,332	0.1%		0.27%	0.27%	1,683,623	0.1%		-0.89%	-0.89%	3.28%	3.28%	6.10%	6.10%	N/A	N/A	N/A	N/A		
Total Infrastructure	110,380,548	4.8%	6.0%	8.28%	8.02%	98,277,413	4.3%	6.0%	1.62%	1.40%	98,677,786	4.9%	6.0%	1.86%	1.73%	98,801,471	4.6%	6.0%	-0.16%	-0.16%	8.73%	8.21%	3.88%	2.88%	4.81%	4.21%	7.21%	6.57%		
CPI				0.49%	0.49%				0.96%	0.96%				-0.04%	-0.04%				0.09%	0.09%	1.50%	1.50%	0.64%	0.64%	0.58%	0.58%	1.11%	1.11%		
Cash Equivalents																														
Northern Trust Collective STIF	20,215,413			0.25%	0.25%	11,660,620			0.21%	0.21%	16,983,847			0.17%	0.17%	6,202,194			0.13%	0.13%	0.75%	0.75%	0.29%	0.29%	0.37%	0.37%	0.25%	0.25%		
Bank of ND	7,039,112			0.23%	0.23%	6,764,029			0.17%	0.17%	5,179,029			0.12%	0.12%	2,822,839			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total Cash Equivalents	27,254,625	1.2%	1.0%	0.26%	0.26%	18,424,650	0.8%	1.0%	0.20%	0.20%	22,162,877	1.0%	1.0%	0.18%	0.18%	8,026,033	0.4%	1.0%	0.12%	0.12%	0.74%	0.74%	0.28%	0.28%	0.38%	0.38%	0.24%	0.24%		
90 Day T-Bill				0.20%	0.20%				0.10%	0.10%				0.09%	0.09%				0.10%	0.10%	0.49%	0.49%	0.19%	0.19%	0.23%	0.23%	0.17%	0.17%		

NOTE: Monthly returns and market values are preliminary and subject to change.

New asset class structure began October 1, 2011. Composite returns for new positions not available prior to that date.

Portfolios moved between asset classes will show historical returns in new positions.

(1) Epoch was included in the Large Cap Domestic Equity composite through 12/31/11.

(2) Prior to January 1, 2012, the benchmark was S&P 500.

(3) This benchmark was changed to the MSCI EAFE (unhedged) as of April 1, 2011.

(4) All limited partnership-type (and mutual funds as of 7/1/14) investment returns will only be reported net of fees, which is standard practice by the investment consultant.

U.S. Unemployment Rates

2016
to
2017



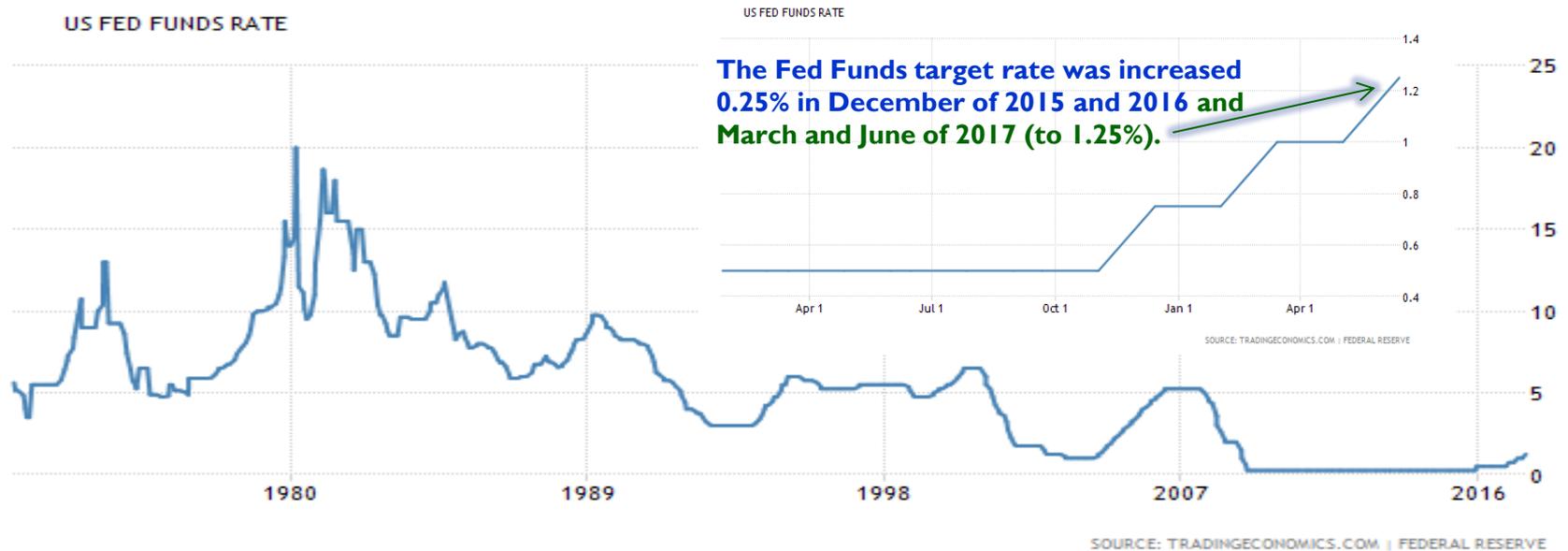
1950
to
2017



The U.S. unemployment rate fell to 4.3% in July of 2017 from 4.4% in the April and matched a 16-year low touched in May. It was the lowest jobless rate since May 2001, as the number of unemployed persons was little changed at 7 million and the labor force participation rate edged up to 62.9%. U.S. unemployment averaged 5.8% from 1948 until 2017, reaching an all time high of 10.8% in November of 1982 and a record low of 2.5% in May of 1953.

U.S. Fed Funds Rate (1971 to 2017)

Background: The **federal funds rate** is the interest rate at which banks lend reserve balances to other banks overnight (on an uncollateralized basis). Banks with surplus balances lend to those in need of larger balances. Reserve balances are held at the Federal Reserve to maintain the banks' reserve requirements. **Changes in the federal funds rate trigger a chain of events that affect other short-term interest rates**, foreign exchange rates, long-term interest rates, the amount of money and credit, and, ultimately, a range of economic variables, including employment, output, and prices of goods and services. The Federal Reserve uses "monetary policy" to influence the availability and cost of money and credit to help promote national economic goals.



The Federal Reserve raised the target range for its federal funds rate by 25bps to 1% to 1.25% during its June 2017 meeting, in line with market expectations. Policymakers kept forecasts for one more rate hike this year while increasing growth projections and lowering inflation expectations. In addition, details on how the central bank will start reducing its USD 4.5 trillion portfolio were also provided. Interest Rate in the United States averaged 5.79 percent from 1971 until 2017, reaching an all time high of 20 percent in March of 1980 and a record low of 0.25 percent in December of 2008.

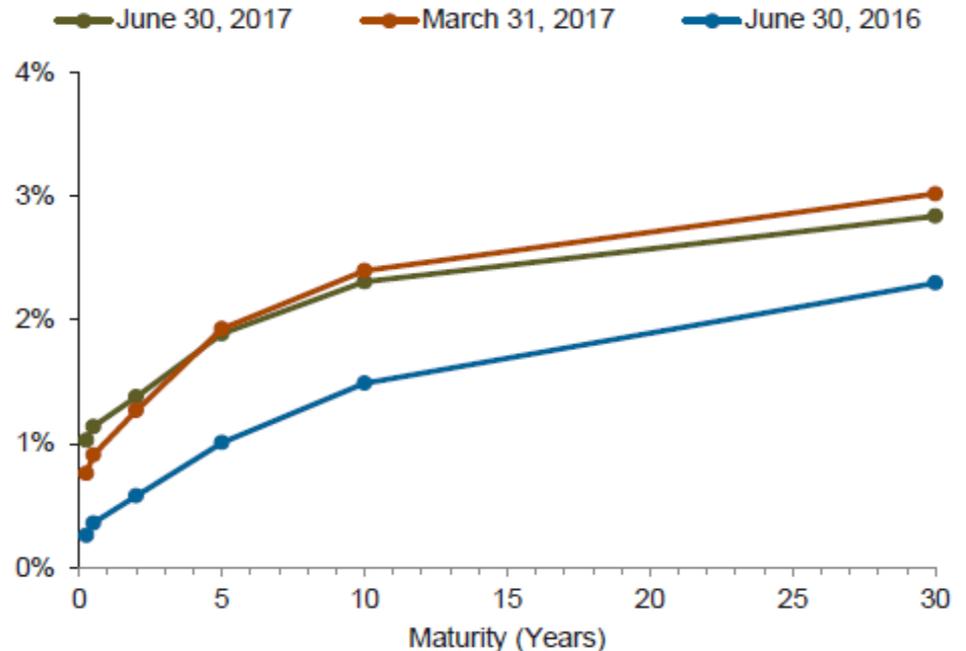
Yield Curve Changes

Periods Ending June 30, 2017

The Treasury yield curve flattened with short term rates rising along with Fed action and long term rates falling on expectations of a slower growth trajectory.

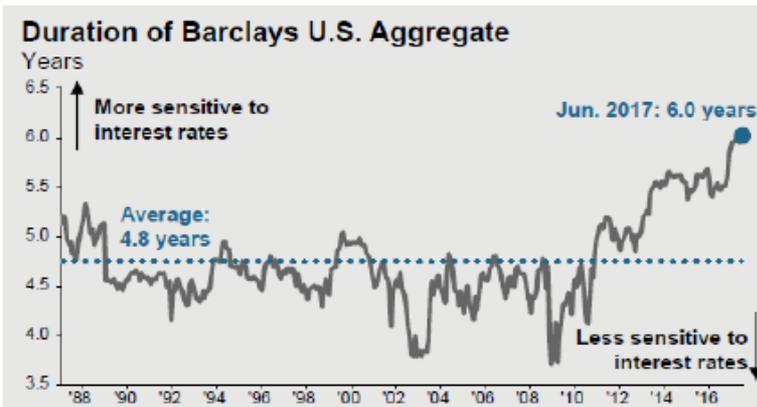
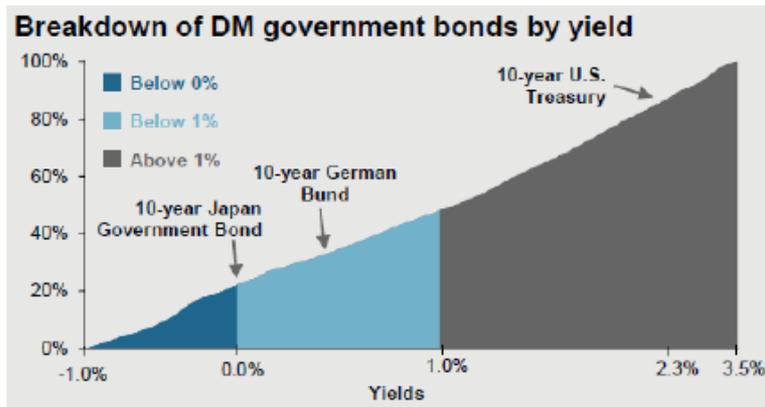
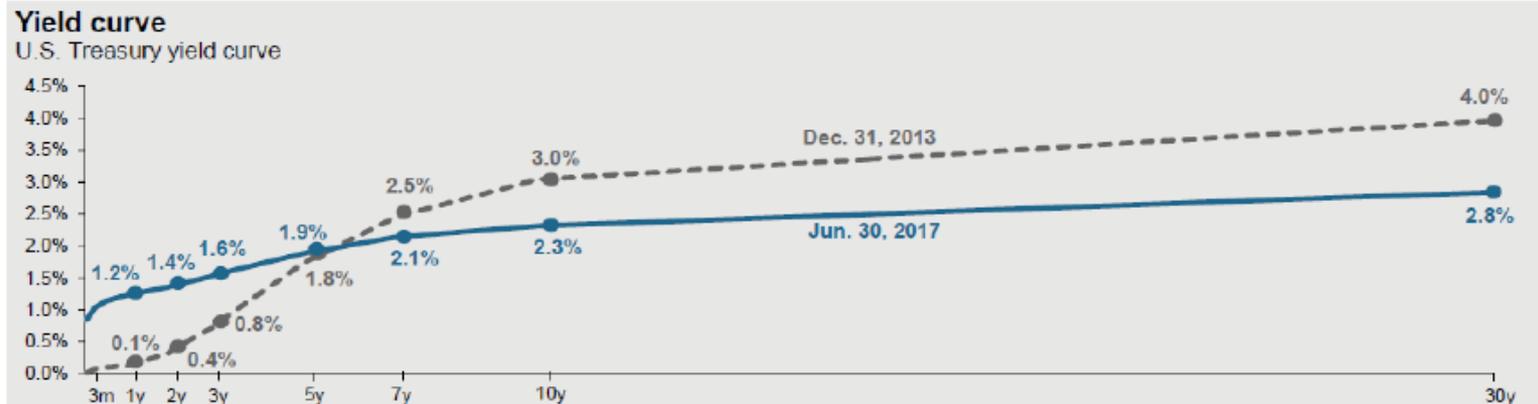
The yield on 10-year and 30-year treasuries dropped 0.09% and 0.18%, respectively, while 3-month rates rose 0.27%.

U.S. Treasury Yield Curves



Source: U.S. Department of the Treasury

Bond Market Dynamics



- Historically high duration means the U.S. Aggregate is more sensitive to interest rate changes; however, higher yields in the U.S. relative to other developed markets increases global demand which could slow the pace at which long rates rise.

Source: FactSet, J.P. Morgan Asset Management; (Bottom left) Bloomberg, BofA/Merrill Lynch. (Bottom right) Barclays, Bloomberg. The Developed Market Government Bond Index is the Bank of America/Merrill Lynch Global Government Index. Duration measures the sensitivity of the price of a bond to a change in interest rates. The higher the duration the greater the sensitivity bond is to movements in the interest rate. Guide to the Markets – U.S. Data are as of June 30, 2017.

ND Teachers' Fund for Retirement Schedule of Investment Expenses

	FY 2017				FY 2016			
	Average Market Value	Fees in \$	Fees as % of Average MV	Contribution to Total Fees	Average Market Value	Fees in \$	Fees as % of Average MV	Contribution to Total Fees
Investment managers' fees:								
Global equity managers	368,541,670	1,426,842	0.39%	0.06%	321,572,579	1,230,533	0.38%	0.06%
Domestic large cap equity managers	388,663,320	551,198	0.14%	0.02%	358,363,312	903,523	0.25%	0.04%
Domestic small cap equity managers	117,362,483	455,668	0.39%	0.02%	100,948,962	563,542	0.56%	0.03%
Developed international equity managers	269,890,875	852,764	0.32%	0.04%	241,176,848	977,198	0.41%	0.05%
Emerging markets equity managers	77,503,580	633,942	0.82%	0.03%	64,914,247	529,699	0.82%	0.03%
Investment grade domestic fixed income managers	282,438,107	2,017,975	0.71%	0.09%	257,980,949	1,005,950	0.39%	0.05%
Below investment grade fixed income managers *	101,467,769	1,412,036	1.39%	0.06%	105,033,618	1,082,779	1.03%	0.05%
Developed international fixed income managers	118,359,898	423,318	0.36%	0.02%	105,997,529	376,723	0.36%	0.02%
Real estate managers	229,402,622	2,541,836	1.11%	0.11%	217,214,225	2,053,698	0.95%	0.10%
Timber managers	65,007,185	437,057	0.67%	0.02%	73,053,142	(956,302)	-1.31%	-0.05%
Infrastructure managers	100,536,799	803,006	0.80%	0.04%	97,501,541	1,027,901	1.05%	0.05%
Private equity managers *	72,608,878	1,258,121	1.73%	0.06%	77,686,695	1,399,707	1.80%	0.07%
Cash & equivalents managers	19,216,771	20,203	0.11%	0.00%	19,020,916	23,185	0.12%	0.00%
Total investment management fees	2,210,999,957	12,833,966	0.58%		2,040,464,564	10,218,136	0.50%	
Custodian fees		213,844	0.01%	0.01%		197,310	0.01%	0.01%
Investment consultant fees		124,539	0.01%	0.01%		204,752	0.01%	0.01%
Total investment expenses		13,172,349	0.60%			10,620,199	0.52%	
			FY 2017				FY 2016	
Actual Investment Performance (Net of Fees)			12.92%		Actual Investment Performance (Net of Fees)		0.27%	
Policy Benchmark			11.63%		Policy Benchmark		0.62%	
Outperformance/(Underperformance)			1.29%		Outperformance/(Underperformance)		-0.35%	

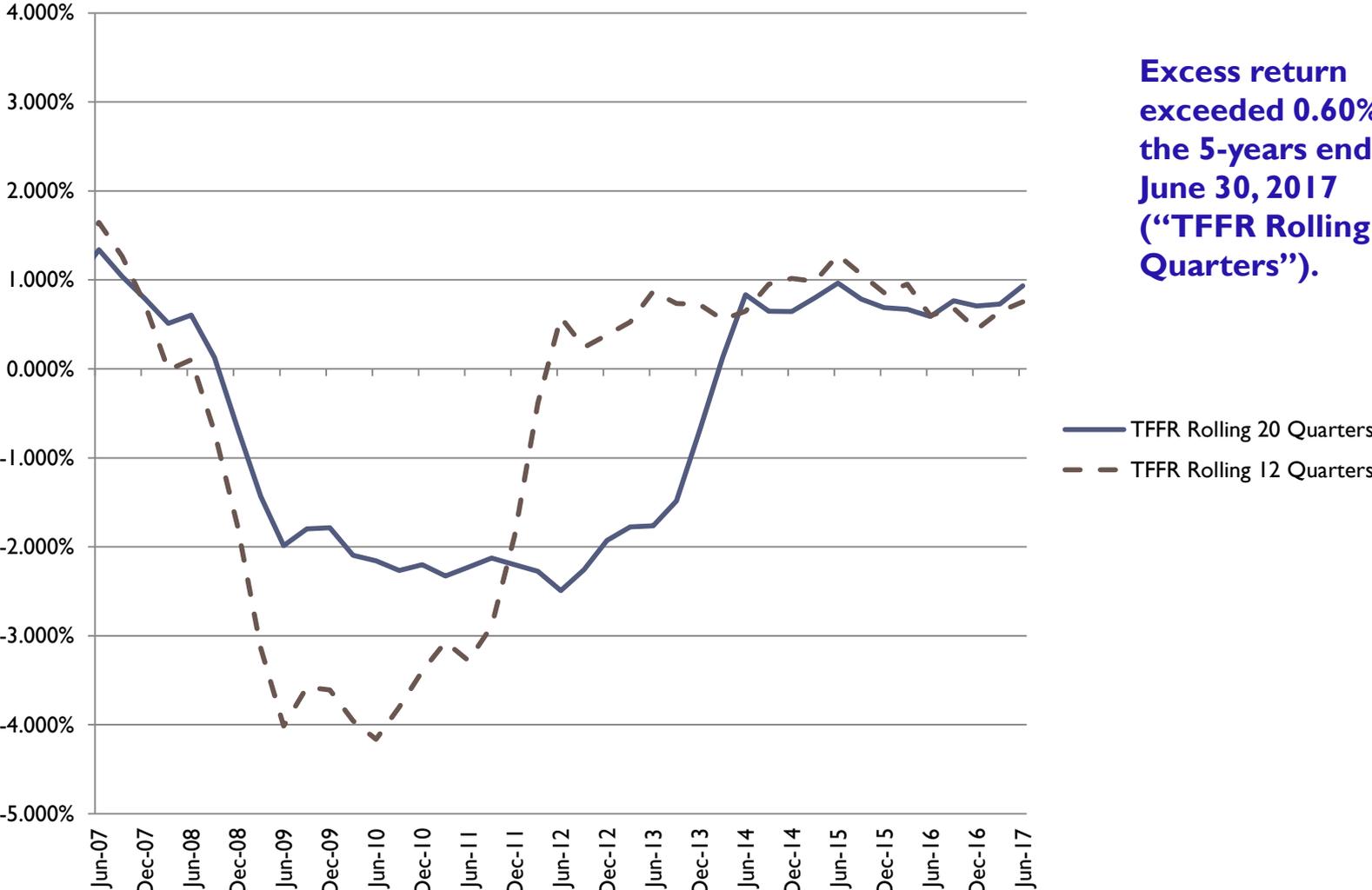
* Includes some estimates for June quarter carried interest/incentive fees not yet reported.

➤ **TFFR's fees increased to 0.60% in FY 2017 from 0.52% in FY 2016 mostly due to the Timber fee reversal of -0.05% in the prior year. Performance fees were also higher in 2017 than 2016.**

Note: All amounts are deemed to be materially accurate, but are unaudited and subject to change.

Excess Return Relative to Policy Benchmark

10 Years Ended **6/30/2017**

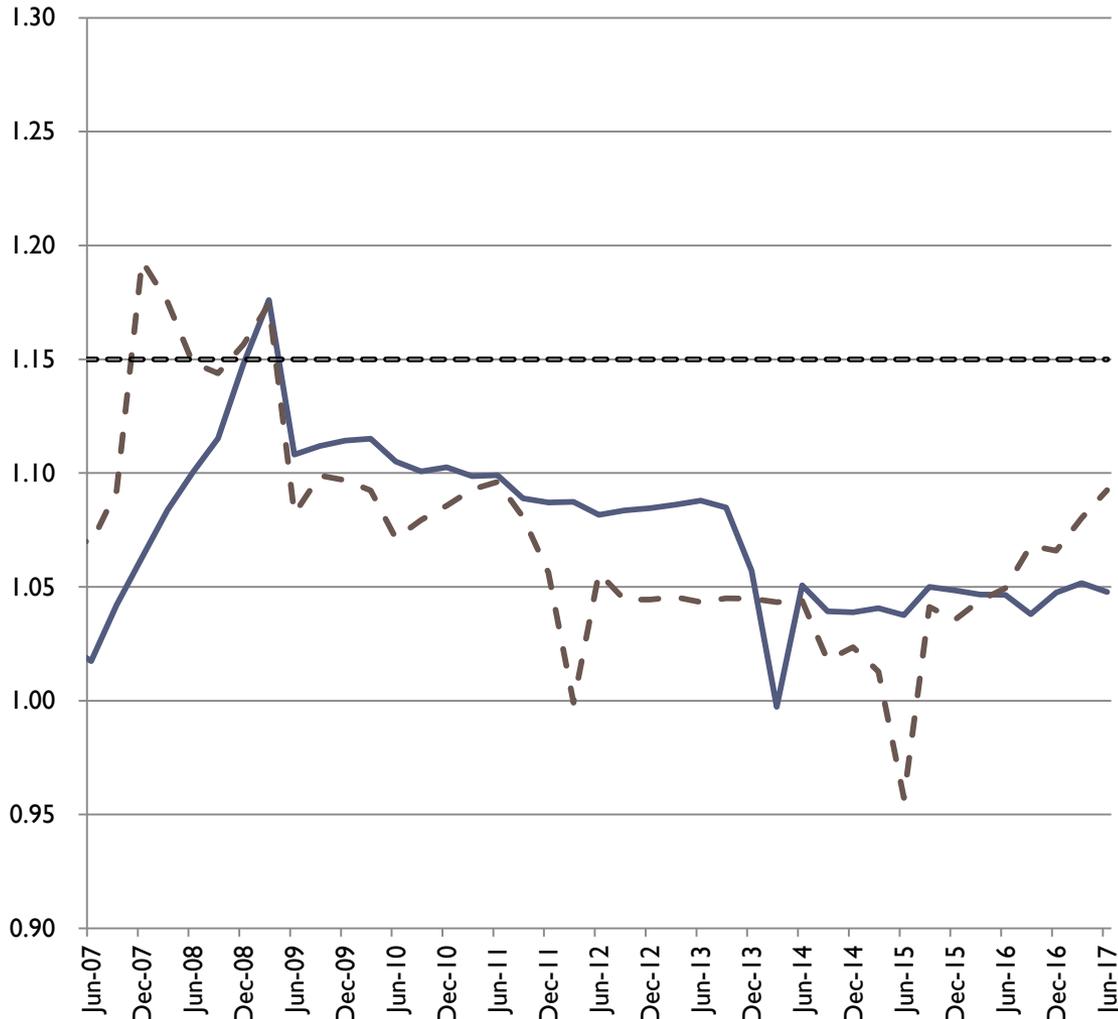


Excess return exceeded 0.60% for the 5-years ended June 30, 2017 (“TFFR Rolling 20 Quarters”).

— TFFR Rolling 20 Quarters
 - - TFFR Rolling 12 Quarters

Relative Standard Deviation Relative to Policy Benchmark

10 Years Ended 6/30/2017



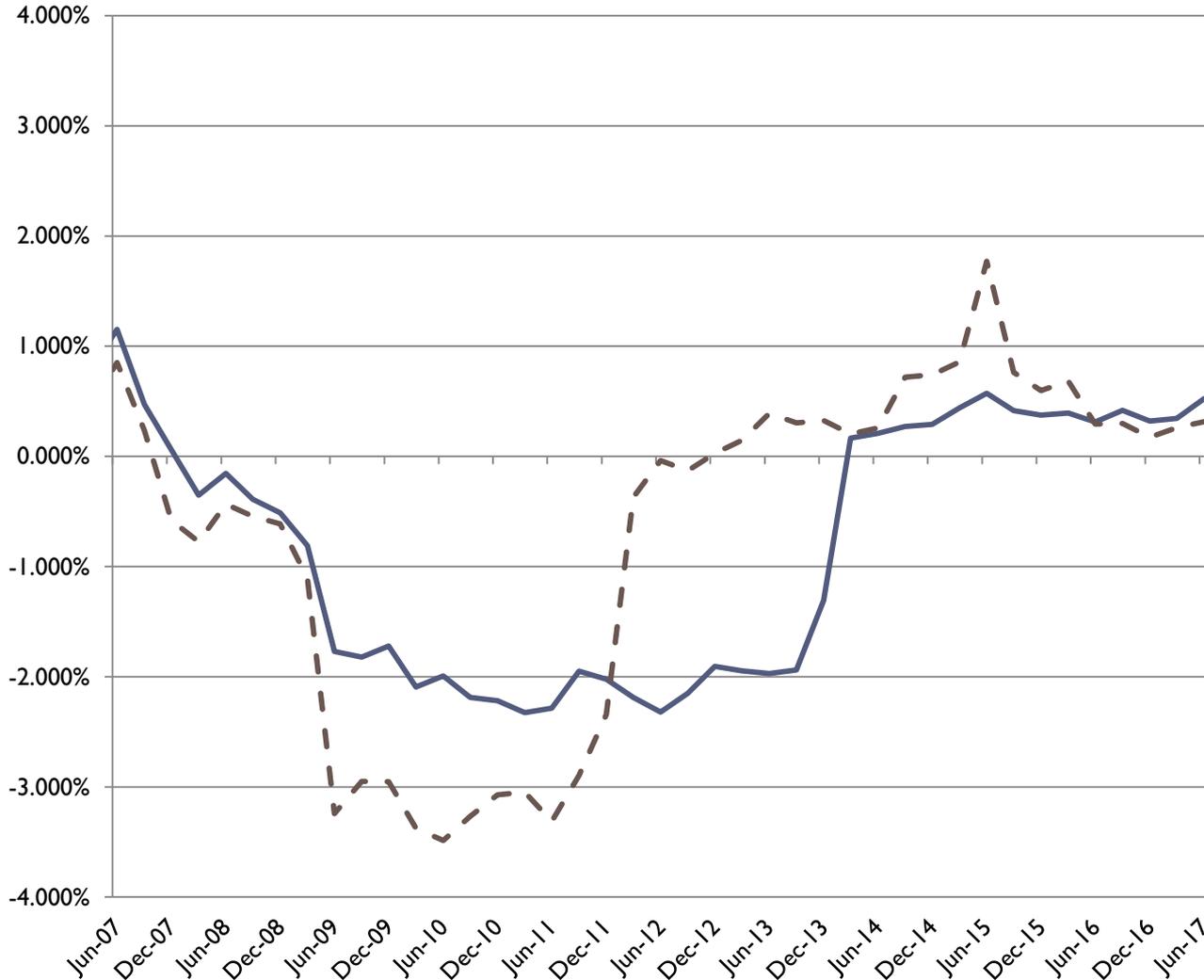
Investment risk, as measured by standard deviation, remains within investment guidelines of 1.15 (or 115% of the policy benchmark) over the last 5 years.

- TFFR Rolling 20 Quarters
- - - TFFR Rolling 12 Quarters
- - - Reference

TFFR's standard deviation for the 5-years ended June 30, 2017 was 105% (or 1.05 times) the policy benchmark.

Risk Adjusted Excess Return

10 Years Ended 6/30/2017



TFFR's risk adjusted excess return turned positive on a rolling 3-year basis in 2013 (dashed line) and on a rolling 5-year basis (solid line) in 2014.

— TFFR Rolling 20 Quarters

Risk Adjusted Excess Return measures a portfolio's excess return adjusted by its risk relative to a benchmark portfolio. This metric is positive if returns are due to "smart" investment decisions or negative if driven by excess risk.

ANNUAL TFFR EXPENDITURE REPORT
SEPTEMBER 21, 2017

CONNIE FLANAGAN
FISCAL AND INVESTMENT OPERATIONS MANAGER

**RETIREMENT AND INVESTMENT OFFICE
EXPENDITURE SUMMARY REPORT
FISCAL YEAR ENDED JUNE 30, 2017**

	TFFR		SIB		Total RIO	
	Actual Expenses	% of Total	Actual Expenses	% of Total	Actual Expenses	% of Total
<u>CONTINUING APPROPRIATIONS</u>						
INVESTMENT EXPENDITURES *	\$ 13,172,349	6.2%	\$ 41,433,254	97.4%	\$ 54,605,603	21.5%
MEMBER CLAIMS						
ANNUITY PAYMENTS	191,104,694		-		191,104,694	
REFUND PAYMENTS	5,411,850		-		5,411,850	
TOTAL MEMBER CLAIMS	196,516,544	92.8%	-	0.0%	196,516,544	77.2%
OTHER CONTINUING APPROPRIATIONS	415,576	0.2%	187,578	0.4%	603,154	0.2%
TOTAL CONTINUING APPROPRIATIONS	210,104,468	99.2%	41,620,832	97.8%	251,725,301	98.9%
<u>APPROPRIATED EXPENDITURES</u>						
SALARIES AND BENEFITS	1,135,689	0.5%	1,038,489	2.4%	2,174,178	0.9%
OPERATING EXPENSES	400,350	0.2%	101,981	0.2%	502,331	0.2%
CAPITAL ASSETS	8,999	0.0%	-	0.0%	-	0.0%
SIB EXPENSES ALLOCATED TO TFFR	221,816		(221,816)		-	
TOTAL APPROPRIATED EXPENDITURES	1,766,854	0.8%	918,654	2.2%	2,676,509	1.1%
TOTAL EXPENDITURES	\$ 211,871,323		\$ 42,539,486		\$ 254,401,810	

* Includes some estimates for June quarter carried interest/incentive fees for limited partnership funds that have not yet reported.

Schedule of Consulting Expenses
For Fiscal Years Ended June 30, 2017 and 2016

	Pension Trust		Investment Trust	
	2017	2016	2017	2016
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Actuary fees:				
Cavanaugh MacDonald Consulting	\$ 38,632	\$ -	\$ -	\$ -
Segal Company	91,742	144,633	-	-
Total Actuary Fees	<u>130,374</u>	<u>144,633</u>	<u>-</u>	<u>-</u>
Auditing/Accounting fees:				
CliftonLarsonAllen LLC	108,987	104,507	28,213	27,993
Total Auditing Fees	<u>108,987</u>	<u>104,507</u>	<u>28,213</u>	<u>27,993</u>
Disability consulting fees:				
Sanford Health	300	300	-	-
Legal fees:				
K&L Gates LLP	3,152	2,598	4,171	3,401
Kasowitz, Benson, Torres & Friedman	1,357	-	1,777	-
Ice Miller LLP	-	-	-	-
ND Attorney General	20,323	18,264	23,520	21,493
Total legal fees:	<u>24,832</u>	<u>20,862</u>	<u>29,468</u>	<u>24,894</u>
Total consultant expenses	<u>\$ 264,493</u>	<u>\$ 270,302</u>	<u>\$ 57,681</u>	<u>\$ 52,887</u>

**RETIREMENT AND INVESTMENT OFFICE
2015-2017 BIENNIUM APPROPRIATION STATUS REPORT
AS OF JUNE 30, 2017**

	2015-2017 BUDGET	ADJUSTED APPROPRIATION	BIENNIUM TO DATE ACTUAL	EXPENDITURES		
				BUDGET AVAILABLE	% BUDGET AVAILABLE	% OF BIENNIUM REMAINING
SALARIES AND BENEFITS	\$ 4,340,551	\$ 4,342,556	\$ 4,233,921	\$ 108,635	2.50%	0.00%
OPERATING EXPENDITURES	990,874	990,874	842,556	148,318	14.97%	0.00%
CONTINGENCY	82,000	82,000	8,999	73,001	89.03%	0.00%
TOTAL	<u>\$ 5,413,425</u>	<u>\$ 5,415,430</u>	<u>\$ 5,085,477</u>	<u>329,953</u>	<u>6.09%</u>	<u>0.00%</u>

RETIREMENT AND INVESTMENT OFFICE

FINAL BUDGET STATUS FOR 2015-2017 BIENNIUM

	2015-2017 Biennium Approved Budget			2015-2017 Biennium Actual			2015-2017 (Over)/Under Budget		
	<u>TFFR</u>	<u>SIB</u>	<u>RIO Total</u>	<u>TFFR</u>	<u>SIB</u>	<u>RIO Total</u>	<u>TFFR</u>	<u>SIB</u>	<u>RIO Total</u>
SALARIES & WAGES	\$ 1,592,559	\$ 1,602,477	\$ 3,195,036	\$ 1,571,011	\$ 1,561,922	\$ 3,132,933	\$ 21,548	\$ 40,555	\$ 62,103
TEMPORARY SALARIES	6,005	4,000	10,005	8,021	-	8,021	(2,016)	4,000	1,984
BENEFITS	647,187	490,328	1,137,515	612,307	480,660	1,092,967	34,880	9,668	44,548
TOTAL SALARIES & BENEFITS	2,245,751	2,096,805	4,342,556	2,191,339	2,042,582	4,233,921	54,412	54,223	108,635
IT - DATA PROCESSING	149,551	26,517	176,068	128,418	24,500	152,918	21,133	2,017	23,150
IT - COMMUNICATIONS	13,800	6,240	20,040	11,498	6,659	18,158	2,302	(419)	1,882
TRAVEL	82,223	54,950	137,173	40,726	27,931	68,657	41,497	27,019	68,516
SUPPLIES - IT SOFTWARE	4,136	2,389	6,525	10,134	4,991	15,126	(5,998)	(2,602)	(8,601)
POSTAGE	89,980	7,040	97,020	83,706	6,758	90,464	6,274	282	6,556
IT CONTRACT SERVICES	177,280	3,722	181,002	126,304	4,078	130,382	50,976	(356)	50,620
LEASE/RENT - BLDG./LAND	104,273	59,503	163,776	102,402	62,345	164,747	1,871	(2,842)	(971)
PROFESSIONAL DEVELOPMENT	34,497	20,963	55,460	29,133	9,648	38,781	5,364	11,315	16,679
OPERATING FEES & SERVICES	20,998	12,399	33,397	30,018	17,015	47,032	(9,020)	(4,616)	(13,635)
REPAIRS	634	366	1,000	596	326	922	38	40	78
PROFESSIONAL SERVICES	17,847	6,623	24,470	16,951	7,426	24,377	896	(803)	93
INSURANCE	928	535	1,463	806	463	1,270	122	72	193
OFFICE SUPPLIES	4,730	2,730	7,460	3,812	1,218	5,029	918	1,512	2,431
PRINTING	25,896	3,774	29,670	28,612	5,393	34,005	(2,716)	(1,619)	(4,335)
PROFESSIONAL SUPPLIES	1,500	1,500	3,000	777	946	1,723	723	554	1,277
MISCELLANEOUS SUPPLIES	3,083	1,777	4,860	1,239	382	1,621	1,844	1,395	3,239
IT EQUIPMENT < \$5000	29,105	12,185	41,290	23,274	12,387	35,662	5,831	(202)	5,628
OTHER EQUIPMENT < \$5000	300	173	473	300	172	472	0	1	1
OFFICE EQUIP & FURNITURE < \$5000	4,265	2,462	6,727	9,623	1,587	11,211	(5,358)	875	(4,484)
TOTAL OPERATING	765,026	225,848	990,874	648,330	194,227	842,556	116,696	31,621	148,318
TOTAL BEFORE CONTINGENCY	3,010,777	2,322,653	5,333,430	2,839,669	2,236,809	5,076,478	171,108	85,844	256,952
CONTINGENCY (CAPITAL ASSETS)	41,000	41,000	82,000	8,999	-	8,999	32,001	41,000	73,001
TOTAL BUDGET	\$ 3,051,777	\$ 2,363,653	\$ 5,415,430	\$ 2,848,668	\$ 2,236,809	\$ 5,085,477	\$ 203,109	\$ 126,844	\$ 329,953

Retirement and Investment Office

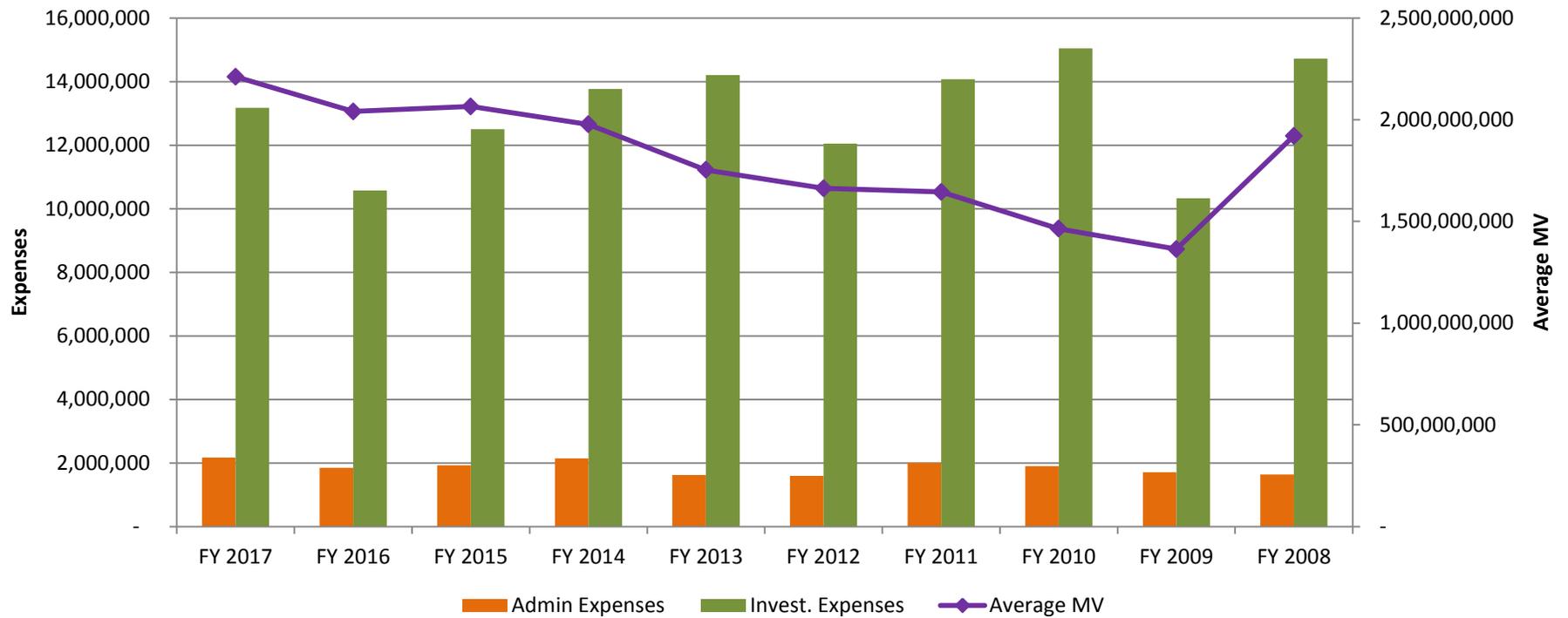
FINAL APPROVED BUDGET FOR 2017-2019 BIENNIUM

	2015-2017 Biennium Approved Budget			2017-2019 Biennium Approved Budget			Change from 2015-17 Approved Budget					
	TFFR	SIB	RIO Total	TFFR	SIB	RIO Total	TFFR		SIB		RIO Total	
SALARIES & WAGES	1,592,559.00	1,602,477.00	3,195,036.00	1,637,129.00	1,591,806.00	3,228,935.00	44,570.00	2.8%	(10,671.00)	-0.7%	33,899.00	1.1%
TEMPORARY SALARIES	6,005.00	4,000.00	10,005.00	-	-	-	(6,005.00)	-100.0%	(4,000.00)	-100.0%	(10,005.00)	-100.0%
BENEFITS	647,187.00	490,328.00	1,137,515.00	688,683.00	507,952.00	1,196,635.00	41,496.00	6.4%	17,624.00	3.6%	59,120.00	5.2%
TOTAL SALARIES & BENEFITS	2,245,751.00	2,096,805.00	4,342,556.00	2,325,812.00	2,099,758.00	4,425,570.00	80,061.00	3.6%	2,953.00	0.1%	83,014.00	1.9%
IT - DATA PROCESSING	149,551.00	26,517.00	176,068.00	150,402.00	29,006.00	179,408.00	851.00	0.5%	2,489.00	9.4%	3,340.00	1.9%
IT - COMMUNICATIONS	13,800.00	6,240.00	20,040.00	12,600.00	6,480.00	19,080.00	(1,200.00)	-6.0%	240.00	3.8%	(960.00)	-4.8%
TRAVEL	82,223.00	54,950.00	137,173.00	47,232.00	26,718.00	73,950.00	(34,991.00)	-25.5%	(28,232.00)	-51.4%	(63,223.00)	-46.1%
SUPPLIES - IT SOFTWARE	4,136.00	2,389.00	6,525.00	699.00	401.00	1,100.00	(3,437.00)	-52.7%	(1,988.00)	-83.2%	(5,425.00)	-83.1%
POSTAGE	89,980.00	7,040.00	97,020.00	91,279.00	7,040.00	98,319.00	1,299.00	1.3%	-	0.0%	1,299.00	1.3%
IT CONTRACT SERVICES	177,280.00	3,722.00	181,002.00	156,468.00	2,826.00	159,294.00	(20,812.00)	-11.5%	(896.00)	-24.1%	(21,708.00)	-12.0%
LEASE/RENT - BLDG./LAND	104,273.00	59,503.00	163,776.00	110,237.00	62,905.00	173,142.00	5,964.00	3.6%	3,402.00	5.7%	9,366.00	5.7%
PROFESSIONAL DEVELOPMENT	34,497.00	20,963.00	55,460.00	23,563.50	8,631.50	31,400.00	(10,933.50)	-19.7%	(12,331.50)	-58.8%	(24,060.00)	-43.4%
OPERATING FEES & SERVICES	20,998.00	12,399.00	33,397.00	28,707.21	17,555.80	46,263.00	7,709.21	23.1%	5,156.80	41.6%	12,866.00	38.5%
REPAIRS	634.00	366.00	1,000.00	476.00	274.00	750.00	(158.00)	-15.8%	(92.00)	-25.1%	(250.00)	-25.0%
PROFESSIONAL SERVICES	17,847.00	6,623.00	24,470.00	24,521.00	9,070.00	33,590.00	6,674.00	27.3%	2,447.00	36.9%	9,120.00	37.3%
INSURANCE	928.00	535.00	1,463.00	853.00	491.00	1,344.00	(75.00)	-5.1%	(44.00)	-8.2%	(119.00)	-8.1%
OFFICE SUPPLIES	4,730.00	2,730.00	7,460.00	3,943.00	2,267.00	6,210.00	(787.00)	-10.5%	(463.00)	-17.0%	(1,250.00)	-16.8%
PRINTING	25,896.00	3,774.00	29,670.00	22,983.00	4,759.00	27,742.00	(2,913.00)	-9.8%	985.00	26.1%	(1,928.00)	-6.5%
PROFESSIONAL SUPPLIES	1,500.00	1,500.00	3,000.00	875.00	875.00	1,750.00	(625.00)	-20.8%	(625.00)	-41.7%	(1,250.00)	-41.7%
MISCELLANEOUS SUPPLIES	3,083.00	1,777.00	4,860.00	2,585.00	1,485.00	4,070.00	(498.00)	-10.2%	(292.00)	-16.4%	(790.00)	-16.3%
IT EQUIPMENT < \$5000	29,105.00	12,185.00	41,290.00	-	-	-	(29,105.00)	-70.5%	(12,185.00)	-100.0%	(41,290.00)	-100.0%
OTHER EQUIPMENT < \$5000	300.00	173.00	473.00	3,221.00	1,851.00	5,072.00	2,921.00	617.5%	1,678.00	969.9%	4,599.00	972.3%
OFFICE EQUIP & FURNITURE < \$5000	4,265.00	2,462.00	6,727.00	-	-	-	(4,265.00)	-63.4%	(2,462.00)	-100.0%	(6,727.00)	-100.0%
TOTAL OPERATING	765,026.00	225,848.00	990,874.00	680,644.70	182,635.30	862,484.00	(84,381.30)	-11.0%	(43,212.70)	-19.1%	(128,390.00)	-13.0%
TOTAL BEFORE CONTINGENCY	3,010,777.00	2,322,653.00	5,333,430.00	3,006,456.70	2,282,393.30	5,288,054.00	(4,320.30)	-0.1%	(40,259.70)	-1.7%	(45,376.00)	-0.9%
CONTINGENCY	41,000.00	41,000.00	82,000.00	26,000.00	26,000.00	52,000.00	(15,000.00)	(0.18)	(15,000.00)	(0.37)	(30,000.00)	(0.37)
TOTAL BUDGET	3,051,777.00	2,363,653.00	5,415,430.00	3,032,456.70	2,308,393.30	5,340,054.00	(19,320.30)	-0.6%	(55,259.70)	-2.3%	(75,376.00)	-1.4%

Board Travel Budget Guidelines: Our budget includes funding for approximately 13 out of state trips for board members (TFFR and SIB). General rule will be one trip per board member for the biennium. Additional trips may be approved in the second year of the biennium based on budget availability.

In-State Reimbursement Rates: Lodging rate is 90% of Federal GSA rate for ND (\$93 effective October 1) so rate is \$83.70 plus tax. Mileage is linked to Federal GSA rate which is currently \$0.535 per mile. In-state meal rates: Breakfast: \$7.00; Lunch: \$10.50; Dinner: \$17.50 (no change from current rates).

TFFR Investment and Administrative Expenses



MEMORANDUM

TO: TFFR Board
FROM: Richard Nagel
DATE: September 14, 2017
SUBJ: Annual Technology Report

1. Office Move

RIO office moved to a new location effective July 1, 2017. The move required a lot of work, time and planning to ensure a smooth transition as our deadline was June 30, 2017 due to budget constraints. The IT staff worked extensively on the move from May to August to complete many tasks (for example, requesting fiber line costs, installing network rack in existing network room, testing ports, wire management, tear down/move/setup all equipment, etc.). The new office location provides better access for our guests, updated security, improved working conditions, and a larger conference room for the potential to hold more meetings locally onsite or via video conferencing.

2. Software Upgrades

IT recently upgraded a number of software applications used at RIO. Some of the software upgrades included SQL Server, Oracle Database, Tamale RMS software, Adobe Standard, as well as a few others. These upgrades are vital as they included many security updates to help protect sensitive and confidential information.

3. Web Services

RIO continued to work on Member Web Services this past year. The items addressed this past year included cosmetic changes, login cleanup, database upgrade, and some performance issues dealing with the Summary screen. We are in the process of updating our test environment and will need to reapply scripts/patches so we can fully test and prepare for the load test. Once these items are completed, we will work to push the application to production. Please note, due to higher priorities such as the move, upgrading software and working with vendors, we were not able to devote as much time to Web Services as we would have liked.

4. IT Security

Security will always be a main priority for RIO and ITD. RIO's new office location is locked 24/7. Each employee has a key fob that allows them access and we are working on client access to utilize audio/video hardware and software. RIO and ITD updated all existing FTP sites as well as created new ones to allow secure transfers. We are also updating all software platforms to keep up with all the changes and additional features provided for security.

5. Records Retention and Purging

IT continues to review, update, and run scripts to delete data from CPAS database and our FileNet repository application in accordance with our records retention schedule. We know this is an area where more work needs to be done but we are working through it to get it completed.

6. Office Equipment

IT is working on new desktops and laptops for all the employees. These new machines will have Windows 10, Microsoft Outlook 2016 and Skype for Business. We have also installed additional Wi-Fi throughout the office space to allow more mobile access.

IT Initiatives Completed in Last Year:

1. Worked closely with ITD on creating a new website template that is available to all State Agencies. RIO's new website template has been activated in the development environment.
2. IT staff installed a Polycom system that will allow employees to conduct meetings locally and reduce travel when necessary.
3. RIO has started the process of moving towards electronic documents to reduce costs.

Future IT Initiatives:

1. Complete Oracle 12c production upgrade.
2. Utilize Polycom system and research recording methods to post videos online.
3. Utilize SCCM (System Center Configuration Manager) to push updates automatically.
4. Potential upgrades to Employer and Member Online applications.
(examples: Retiree Annual Statements, Editing capabilities for end-user, 1099Rs, benefit quotes, forms, electronic notifications to reduce mail costs)
5. Configure layout for new website, add data, and publish to production for public viewing.

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
DATE: September 14, 2017
SUBJ: TFFR COMMUNICATIONS UPDATE

New or improved TFFR member and employer communication methods are being developed.

For many years, TFFR members have been able to access information from our office via phone, mail, email, personal appointments, outreach programs and website. These options will not go away, however we are continuing efforts to enhance and expand the use of electronic communication methods. For example:

- TFFR Member Online continues to be a high priority. This will allow members to access basic TFFR account information on a secure internet application. Available information will include member's account value, salary and service credit, and last annual statement. We are conducting final testing, and have been working closely with ITD and our vendor to address challenging technology issues.
- Plans are underway to modernize the [RIO website](#) in the upcoming year to make it more user friendly, and to add new features and additional information.
- [TFFR webcast library](#) is expanding. TFFR staff has recorded seven webcasts designed specifically for members and employers covering basic information about the TFFR plan, funding the benefits, purchasing service credit, applying for retirement benefits, and explanation of benefit options, and employer reporting basics. More webcasts are scheduled to be added in the next year including retiree re-employment guidelines, retiree death benefits, and employer payment plan models.

Process for distributing member and employer information is transitioning to electronic methods where appropriate.

Today, much TFFR information is printed and distributed including member newsletters, outreach program materials, and annual statements. Due to budget constraints and the ability to provide information electronically, we are in the process of transitioning away from traditional mailing and distribution methods to more cost effective electronic methods. This will not happen overnight, but members are beginning to receive TFFR member information in a different format than they have in the past. For example:

- [Active member newsletters](#) will no longer be printed and mailed to a member's home address. Instead, member newsletters will be emailed to school district business managers for distribution to all active TFFR members. Inactive and retired member newsletters will continue to be mailed to home addresses for the time being. Once TFFR Member Online is fully operational, and we add necessary functionality, we can begin emailing newsletters directly to members. All member newsletters are currently available on our website.
- [Outreach program materials](#) will no longer be printed and distributed to participants. Instead, materials will be added to our website. Program participants will be sent a link to the program materials which they can either view electronically or print. Personalized retirement information will continue to be hand delivered to participants when they attend the outreach programs. This has already been tested for the retirement education workshops held in July 2017, and will be done for group benefits counseling sessions next year.
- Member annual statements will continue to be mailed to active and retired members' home addresses for the time being since the statements contain confidential personal information. Once TFFR Member Online is fully operational, member annual statements will be available on a secure internet application, and annual statement mailings will eventually be discontinued.

Staff is continuing to find new ways to reduce paper and increase electronic methods of communication, without negatively impacting members and employers. Some members have expressed their concerns, and we continue to reassure them that we will find a way to get them TFFR information as we seek to balance limited staff, budget, and resources.

Great customer service always has been, and always will be, a top priority.

BOARD INFORMATION. No Board action is requested.

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
DATE: September 14, 2017
SUBJ: TFFR LEGISLATIVE UPDATE

The [Legislative Council Employee Benefits Programs Committee](#) is a 13-member interim legislative committee consisting of seven representatives and six senators:

- Representatives: Mike Lefor (Chairman), Randy Boehning, Jason Dockter, Vernon Laning, Alisa Mitskog, Mark Owens, and Roscoe Streyle
- Senators: Dick Dever (Vice Chairman), Brad Bekkedahl, Karen Krebsbach, Oley Larsen, Gary Lee, Carolyn Nelson.

The Committee has scheduled its fall meetings and tentative agenda items:

- September 21, 2017 (pm)- Receive overview of PERS retirement and insurance programs, and status reports from HRMS on various topics.
- October 26, 2017 (am) - Receive overview of TFFR retirement program, SIB investment program, 2017 TFFR actuarial valuation report from Segal, and 2017 PERS actuarial valuation report from GRS.

BOARD INFORMATION. No Board action is requested.

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
DATE: September 14, 2017
SUBJ: LEA President Contract Release Time Salary

At the April and July 2017 meetings, the TFFR Board discussed salary payments made by TFFR employers to Local Education Association (LEA) presidents who are granted contract release time to perform their association duties. See April 24, 2017 memo from Fay Kopp and April 18, 2017 legal analysis from Jan Murtha for background information.

Because all board members were not at the July 2017 meeting, the TFFR Board decided to table the topic until the September 2017 meeting to give all board members an opportunity to participate in the discussion. Unfortunately, due to interim legislative committee meetings, I am aware that some board members are also unable to attend the September 21 meeting, therefore the Board may want to consider whether to again table the issue until all trustees are present and able to participate.

Additionally, I have asked Jan to be prepared to comment on the legal risks, strengths, and weaknesses of actions that may be taken by the Board regarding this issue. If the Board wishes to receive such attorney consultation or discuss confidential member information, the discussion should be held in Executive Session.

BOARD ACTION REQUESTED.

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
DATE: April 24, 2017
SUBJ: Eligible Salary Discussion
LEA President Duties

At the January 26, 2017 TFFR Board meeting, the Board briefly discussed whether certain salary payments made by TFFR employers to TFFR members who are LEA (local education association) presidents and granted “contract release time” to perform association duties are eligible retirement salary for TFFR purposes as defined in NDCC 15-39.1-04(10). See Attachment 1 for applicable state statutes and administrative rules.

TFFR staff has become aware of two school districts in which the school district contracts and pays a TFFR member their full contract salary, and the LEA reimburses the school district for the 40% contract release time (partial leave of absence) granted to the LEA president to perform association duties. Currently, all of the teacher’s contracted salary is being reported as eligible salary for TFFR purposes.

Please note that in the school districts under question, this has been a long-standing practice for over 25 years and is included in the negotiated agreements. This is not a salary spiking issue, but a question of whether payment for the LEA president duties (which is reimbursed by the LEA) constitutes eligible retirement salary under TFFR statutes.

Example:

LEA president holds a regular full time teaching contract for \$50,000 with the school district, and is granted 40% contract release time each day to conduct LEA president duties. The LEA president would teach 60% of the time each day and conduct LEA president duties 40% of the time each day.

*30,000 60% school district duties - paid by school district
20,000 40% LEA president duties - paid by school district, but reimbursed by LEA*

50,000 100% contract salary reported to TFFR - used in determining member and employer contribution amounts, and calculating TFFR pension benefit.

RIO staff has gathered information from the school districts regarding this issue, and has had some initial discussions with ND United leaders as well as those LEA presidents who could potentially be affected.

Jan Murtha, TFFR's legal counsel from the Attorney General's Office, has reviewed this information and provided her legal analysis. See attached memo dated April 18, 2017.

Staff is asking the TFFR Board to consider, under the statutory authority granted in state law, if contract release pay for the performance of LEA president duties constitutes eligible salary for TFFR reporting purposes as defined in NDCC 15-39.1-04(10).

Some factors the Board may wish to consider:

- Whether LEA president duties are teaching, supervisory, administrative or extracurricular duties performed for the school district or other TFFR participating employer if the funding source for payment of those duties is the LEA.
- Whether state TFFR pension benefits should be based (in part) on salary earned for LEA president duties.
- Whether LEA president contract release time, which is a special type of paid leave, should be treated differently from other paid leave like sick, personal, funeral, professional leave, etc.
- Potential impact on current or future LEA presidents who could be affected by this eligible salary determination.
- Other criteria as set forth in NDAC 82-04-02-01.

It should also be noted that while there may only be a couple school districts that currently grant "contract release time" for LEA presidents and are reimbursed for the LEA president's salary, there are also some school districts that provide employer paid "association leave" to their teachers. For example, as referenced in a negotiated agreement, the school district may provide to the LEA, without loss of pay to individuals, up to 15 days for association activities during a school year. For TFFR purposes, this employer paid association leave has been treated like other paid, used leave for employees (i.e. sick, personal, funeral, professional leave, etc.) and is being appropriately reported as eligible salary for TFFR reporting purposes. In some cases, the LEA reimburses the school district for all or a portion of the substitute teacher's pay, while in other school districts, the LEA does not.

Please review this information, and plan to discuss at the meeting.

BOARD INFORMATION AND DISCUSSION.

Attachments

"Salary" means a member's earnings in eligible employment under this chapter for teaching, supervisory, administrative, and extracurricular services during a plan year reported as salary on the member's federal income tax withholding statements plus any salary reduction or salary deferral amounts under 26 U.S.C. 125, 132(f), 401(k), 403(b), 414(h), or 457, as amended. "Salary" includes amounts paid to members for performance of duties, unless amounts are conditioned on or made in anticipation of an individual member's retirement or termination. The annual salary of each member taken into account in determining benefit accruals and contributions may not exceed the annual compensation limits established under 26 U.S.C. 401(a)(17)(B), as amended, as adjusted for increases in the cost of living in accordance with 26 U.S.C. 401(a)(17)(B), as amended. A salary maximum is not applicable to members whose participation began before July 1, 1996.

"Salary" does not include:

- a. Fringe benefits or side, nonwage, benefits that accompany or are in addition to a member's employment, including insurance programs, annuities, transportation allowances, housing allowances, meals, lodging, or expense allowances, or other benefits provided by employer.
- b. Insurance programs, including medical, dental, vision, disability, life, long-term care, workforce safety and insurance, or other insurance premiums or benefits.
- c. Payments for unused sick leave, personal leave, vacation leave, or other unused leave.
- d. Early retirement incentive pay, severance pay, or other payments conditioned on or made in anticipation of retirement or termination.
- e. Teacher's aide pay, referee pay, bus driver pay, or janitorial pay.
- f. Amounts received by a member in lieu of previously employer-provided benefits or payments that are made on an individual selection basis.
- g. Signing bonuses as defined under section 15.1-09-33.1.
- h. Other benefits or payments not defined in this section which the board determines to be ineligible teachers' fund for retirement salary.**

NDCC 15-39.1-04 (12)

"Teacher" means:

- a. **All persons licensed by the education standards and practices board who are contractually employed in teaching, supervisory, administrative, or extracurricular services by a state institution, multidistrict special education unit, area career and technology center, regional education association, school board, or other governing body of a school district of this state**, including superintendents, assistant superintendents, business managers, principals, assistant principals, and special teachers. For purposes of this subdivision, "teacher" includes persons contractually employed by one of the above employers to provide teaching, supervisory, administrative, or extracurricular services to a separate state institution, state agency, multidistrict special education unit, area career and technology center, regional education association, school board, or other governing body of a school district of this state under a third-party contract.
- b. The superintendent of public instruction, assistant superintendents of public instruction, county superintendents, assistant superintendents, supervisors of instruction, the professional staff of the department of career and technical education, the professional staff of the center for distance education, **the executive director and professional staff of the North Dakota education association who are members of the fund on July 1, 1995**, the professional staff of an interim school district, and the professional staff of the North Dakota high school activities association who are members of the fund on July 1, 1995.
- c. The executive director and professional staff of the North Dakota council of school administrators who are members of the fund on July 1, 1995, and licensed staff of teachers centers, but only if the person was previously a member of and has credits in the fund.
- d. Employees of institutions under the control and administration of the state board of higher education who are members of the fund on July 16, 1989.

NDCC 15-39.1-24. Purchase of additional credit.

6. A teacher who is elected president of a professional educational organization recognized by the board and who serves in a full-time capacity in lieu of teaching may purchase service credit for the time spent serving as president. As an alternative to purchasing service credit under this subsection, a teacher and the governmental body employing the teacher may enter into an agreement under which payment for service credit for the time spent as president of the professional educational organization is made pursuant to section 15-39.1-09. The agreement must provide that contributions made pursuant to section 15-39.1-09 are calculated based on the teacher's annual salary as president.

NDAC 82-02-01-01 Definitions.

3. Administrative – means to manage, direct, or superintend a program, service, or school district or other participating employer.
10. Extracurricular – means outside of the regular curriculum of a school district or other participating employer which includes advising, directing, monitoring, or coaching athletics, music, drama, journalism, and other supplemental programs.
18. Supervisory – means to have general oversight or authority over students or teachers, or both, of a school district or other participating employer.
19. Teaching – means to impart knowledge or skills to students or teachers, or both, by means of oral or written lessons, instructions, and information.

NDAC 82-04-02-01 Criteria for eligible salary determinations.

The teachers' fund for retirement board will consider the following criteria and documentation to determine whether benefits or payments made to a teachers' fund for retirement member is eligible retirement salary as authorized in subsection 9 of North Dakota Century Code section 15-39.1-04:

1. Written authorization made in advance of payment. Examples include:
 - a. Master contract or negotiated agreement.
 - b. Individual employment contract.
 - c. Written agreement between employee and employer.
 - d. Minutes of school board or participating employer.
 - e. Policy of school board or participating employer.
 - f. Other information the board deems relevant.
2. Written documentation describing payment details, including:
 - a. Duration of payment or whether payment is recurring or nonrecurring in future years.
 - b. Frequency and date of payment.
 - c. Relation of payment to base or contract salary.
 - d. Reason or intent of payment.
 - e. Description of duties or services to be performed.
 - f. Description of employees who are eligible for payment.
 - g. Amount of payment expressed as either a fixed dollar amount or percentage of known contract amount (not fixed percent of unknown amount).
 - h. Funding source for payment.
3. Other pertinent information the board deems relevant. Examples include:
 - a. Employee salary history.
 - b. Retirement eligibility.
 - c. Other information the board deems relevant.

MEMORANDUM

TO: Fay Kopp, Teachers' Fund For Retirement

FROM: Janilyn K. Murtha, Assistant Attorney General

RE: LEA President Contract Release Pay

DATE: April 18, 2017

You have asked me whether salary payments made by a TFFR participating employer to a licensed TFFR member is eligible salary for TFFR purposes if the payments include contract release pay to perform local education association (LEA) president duties and the TFFR employer is substantially or completely reimbursed by the LEA for the contract release time. In furtherance of your request you have provided for review various documents describing employment arrangements under which a LEA president is granted a partial leave of absence for contract release time each day during the school year to perform these duties. You have indicated that the teacher is paid their full contract salary for the school year by the employer, including for the contract release time, and the employer is substantially or completely reimbursed for this contract release time by the LEA. You have also indicated that TFFR employers are currently reporting the full contract salary as eligible salary but that the Board has not formally reviewed this issue.

From our discussion and the documentation provided this contract release and reimbursement arrangement appears to be a form of contractually negotiated leave limited to the performance of LEA president duties. At this time there does not appear to be a clear prohibition in law against used LEA president contract release time being afforded the same treatment as other types of used contractually negotiated leave such as leave for illness, vacation or funeral related use. It is my understanding that payment received by teachers for vacation, personal, illness leave etc. is generally treated as eligible salary for TFFR reporting purposes and note that N.D.C.C. § 15-39.1-04(10)(c), specifically excludes *unused* leave, supporting the conclusion that *used* leave is otherwise included.

While pay for contract release time for this purpose is not specifically included in the list of ineligible salary under N.D.C.C. § 15-39.1-04(10), the Board retains the discretion to determine what constitutes eligible salary for TFFR reporting purposes under N.D.C.C. § 15-39.1-04(10)(h). Pursuant to this authority the Board has the discretion to include or

Fay Kopp, Teachers' Fund For Retirement
April 18, 2017
Page 2

exclude contract release pay for the performance of LEA president duties as eligible salary. The Board could take such action as a matter of policy which would be applicable to all members or on an individual basis taking into consideration the unique facts and circumstances of each member. N.D.A.C. § 82-04-02-01 does set forth the criteria the Board may use to make eligible salary determinations for individual members; this criteria could also be used for consideration in establishing policy.

In summary I believe it is appropriate for the Board to review whether contract release pay for the performance of LEA president duties constitutes eligible salary pursuant to N.D.C.C. § 15-39.1-04(10)(h). Please let me know if you have any questions or if I can be of further assistance.

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
Date: September 14, 2017
RE: TFFR Employer Payment Plan - Model 3

Employer Payment Plan Model Background

By statute, all TFFR participating employers are required to pay 12.75% and TFFR members are required to pay 11.75% of eligible salary to the TFFR retirement plan. Member contributions are deducted from the member's salary unless employers and members decide, through the contract negotiations process, that the employer will pay all or a portion of the member contributions as a salary supplement. TFFR Employer Payment Models are described in the [TFFR Employer Guide](#), pages 13-23 and summarized below.

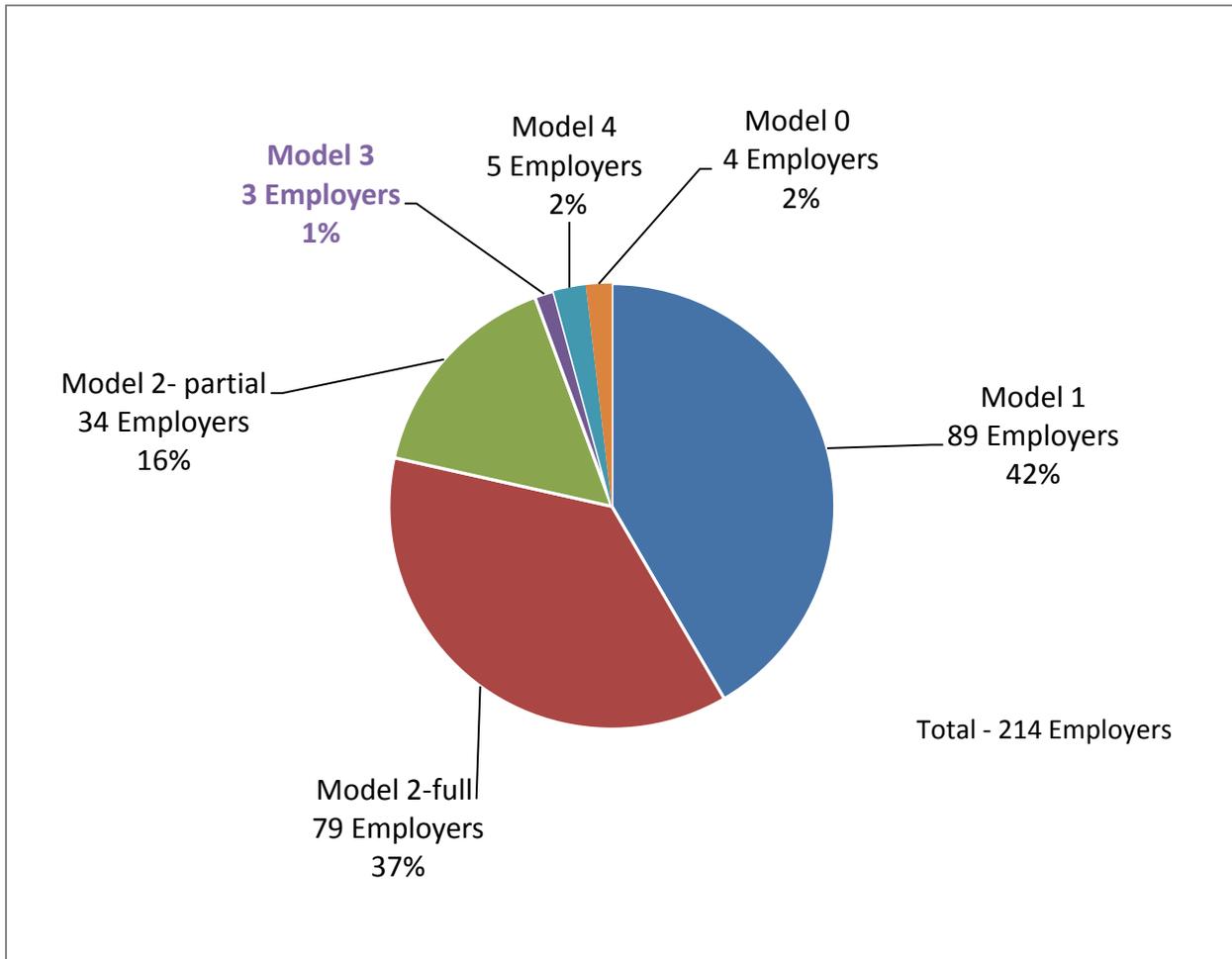
TFFR Employer Payment Plan (EPP) Models

Payment of member contributions on a tax deferred basis can be made by the employer through (1) salary reduction, or (2) salary supplement.

- No Model: Member/employee contribution is paid by employee and remitted by employer as taxed dollars.
- Model 1: Member/employee contribution is paid by employee through a salary reduction and remitted by employer as tax deferred dollars.
- Model 2 All: Member/employee contribution is paid by employer as a salary supplement and remitted to TFFR as tax deferred dollars.
- Model 2 Partial (%): A fixed percentage of the member/employee contribution is paid by employer as a salary supplement and remitted to TFFR as tax deferred dollars. The remaining employee contribution is paid by employee and remitted by employer as tax deferred dollars.
- Model 3 Partial (\$): A fixed dollar amount of the member/employee contribution is paid by employer as a salary supplement and remitted to TFFR as tax deferred dollars. The remaining employee contribution is paid by employee and remitted by employer as tax deferred dollars. Model 3 option is no longer available for use by employers after 7/1/03, though employers using Model 3 at that time were allowed to continue.
- Model 4: Includes state agencies only.

Of the 214 TFFR participating employers, here is a breakdown of model usage for the 2017-18 school year.

TFFR Employer Models 2017-18



Model 3 (\$ partial)

Model 3 (\$ partial) allows employers to pay a fixed dollar amount of the member contributions using a combination of a salary supplement and a salary reduction. See [TFFR Employer Guide](#), page 20, for description of Model 3.

Example: TFFR member is paid \$50,000 base contract salary. Through contract negotiations, the employer agrees to pay \$2,000 of member contributions as a salary supplement, so \$2,000 is included as retirement salary (Model 3). The employer pays \$2,000 of member contributions, and the remaining member contributions are deducted from the member's pay. All member contributions are tax deferred.

TFFR retirement salary	50,000 + 2,000 =	52,000
• Employer contributions:	52,000 X 12.75% =	6,630
• Member contributions:	52,000 X 11.75% =	6,110
	Portion of member contribs paid by employer:	2,000
	Portion of member contribs paid by member:	6,110 - 2,000 = 4,110

Effective July 1, 2003, [TFFR Board Policy C-7, Employer Payment Plan Models](#), was amended to eliminate Model 3. Employers using Model 3 were allowed to continue as a closed group, but Model 3 is no longer available to other employers. The reason for eliminating Model 3 was due to the small number of employers who utilize the model, the complexity of the model (particularly with part time employees and re-employed retirees who must be prorated, etc.), and resulting reporting errors to TFFR (and potentially to the IRS).

Staff has discussed TFFR reporting problems with Model 3 employers, and over time, the number of Model 3 employers has slowly decreased. Currently, there are three small employers remaining under Model 3, paying member contribution amounts ranging from \$1,000 to \$3,500 per full time employee per year.

Board Policy C-7 – Employer Payment Plan Models

Staff continues to be concerned with the difficulty employers experience in accurately reporting Model 3, and the resulting TFFR reporting errors. Therefore, we recommend TFFR Board Policy C-7 be amended to entirely eliminate Model 3 and no longer allow any employers to report under this model effective July 1, 2019. This would require the three remaining Model 3 employers to convert to Model 0, Model 1, or Model 2 as part of their next negotiated agreement. If employers do not comply and continue reporting under Model 3, they would be in violation of NDCC 15-39.1-23. Consequently, they would be charged a \$250 penalty for each report not properly filed and would be subject to suspension of DPI foundation aid payments for failing to file required reports.

Legal Review

Jan Murtha, TFFR Legal Counsel, has reviewed the current policy, and proposed changes to the current policy, and agrees that the Board has the authority to eliminate Model 3 as an option for employers currently using that Model and that the proposed timeframe for implementing this change (ie effective July 1, 2019) provides reasonable notice. Jan noted that NDCC 15-29.1-23 requires employers to file reports as required by the Board and provides a penalty for employers that fail to do so; further NDAC 82-04-01-02(8)(c) specifically requires employers to file a new plan if the Board changes the models.

BOARD INFORMATION AND DISCUSSION.

Policy Type: TFFR Program

Policy Title: Employer Payment Plan Models

The TFFR board has developed models relating to employer payment of member contributions. 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.

Employers must select the employer payment plan model under which they will pay member assessments 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.

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, 2007, the portion of member contributions deducted from the member's salary can be made on a tax deferred basis for state agencies and institutions (Model 4).

Effective July 1, 2012, the portion of member contributions deducted from the member's salary can be made on a tax deferred basis under all models (Model 1, 2, 3, 4).

TFFR Board Adopted: July 16, 1998.

Amended: March 13, 2003; September 22, 2011.

MEMORANDUM

TO: TFFR Board
FROM: Fay Kopp
DATE: September 14, 2017
SUBJ: SIB CUSTOMER SATISFACTION SURVEY

TFFR Board members were asked to complete the SIB Customer Satisfaction Survey individually and forward to Pres. Gessner. He is bringing the compiled results of the survey to the meeting for discussion to finalize the TFFR Board response.

BOARD ACTION REQUESTED.

**2017 NORTH DAKOTA STATE INVESTMENT BOARD
CUSTOMER SATISFACTION SURVEY**

Each year the State Investment Board (SIB) conducts a customer satisfaction survey. The purpose of this annual survey is to determine how well the SIB, through the staff of the Retirement and Investment Office (RIO), is meeting the expectations of its clients. This survey is a part of the SIB's ongoing effort to be responsive to the needs of their clients and to continually improve the services that are provided.

Please help us measure our performance and identify areas for improvement by rating the service you received during fiscal year 2017 (July 1, 2016 - June 30, 2017). Please check the response which best reflects your experience.

<u>RATING FACTORS</u>	<u>EXCELLENT</u>	<u>ABOVE AVERAGE</u>	<u>AVERAGE</u>	<u>POOR</u>
Telephone Calls and/or E-mail Correspondence Handled Promptly and Professionally.....				
Clarity and Effectiveness of Letters, Reports, and Presentations.....				
Detail Provided on Reports.....				
Delivery of High Quality Service.....				
Accessibility.....				
Responsiveness.....				
Efficiency.....				
Knowledge of Investments.....				

HOW CAN THE SIB AND/OR RIO STAFF IMPROVE THEIR SERVICE TO YOU?

Thank you for helping us to serve you better.

2017 NORTH DAKOTA STATE INVESTMENT BOARD
CUSTOMER SATISFACTION SURVEY

Each year the State Investment Board (SIB) conducts a customer satisfaction survey. The purpose of this annual survey is to determine how well the SIB through the staff of the Retirement and Investment Office (RIO), is meeting the expectations of its clients. This survey is a part of the SIB's ongoing effort to be responsive to the needs of their clients and to continually improve the services that are provided.

Please help us measure our performance and identify areas for improvement by rating the service you received during fiscal year 2017 (July 1, 2016 - June 30, 2017). Please check the response which best reflects your experience.

TFFR Board Response Sept. 21, 2017

<u>Rating Factors</u>	<u>Rating (4 point scale)</u>
Telephone Calls and E-mails	3.5
Clarity and effectiveness of Letters, reports, . . .	3.67
Detail provided on reports	3.5
Delivery of high quality service	3.5
Accessibility	3.67
Responsiveness	3.67
Efficiency	3.67
Knowledge of investments	3.67

How can the SIB and/or RIO staff improve their service to you?

- The staff is very knowledgeable, always willing to explain and help out.
- Once again, this year, I am pleased to enter excellent for all the rating factors. In working with the staff I am impressed with the way in which they work at the sacred duty of protecting the hard earned monies for the future retirement of educators in the state of North Dakota.
- Keep up the good work!
- SIB continues to do an excellent job with supporting the TFFR board in all areas. One area for possible considerations the reinforcing with all boards, not just TFFR, the roles and responsibilities of the individual boards as opposed to the State Investment Board. During the board education, it seemed that some of the board members did not have appropriate clarity on what decisions are made at the board level and what falls under the SIB.
- Information & reports are timely and helpful.

Disability Retirement Benefits

TFFR Board Meeting

September 21, 2017



NDCC 15-39.1-18 Disability Retirements

1. Any member may also retire and receive a disability annuity if, after a period of at least five years of service as a member in this state, the member qualifies for total disability as determined by the board.
2. The amount of the disability annuity is the amount computed by the retirement formula in section 15-39.1-10 without consideration of age. A member determined eligible for a disability annuity under this section may elect to receive an annuity under any of the options allowed in section 15-39.1-16, except the level retirement income with social security option or the partial lump sum option.
3. The disability annuity continues until the death or prior recovery of the disabled annuitant. The board shall ascertain by periodic medical examinations the continued disability status of a disabled annuitant.
4. If a disabled annuitant recovers and returns to active teaching, that annuitant is entitled to the retirement benefit credits which the annuitant earned prior to the time of disablement, and the credits which the annuitant earned after returning to active teaching must be added to those earned prior to disablement.

NDAC 82-07 Disability Benefits

- Definitions
- Application Process
- Medical Exam Process
- Medical Consultant Review
- Decision
- Recertification Process
- Suspension of Disability Benefits

Decision

1. The board shall consider applications for disability retirement at regularly scheduled board meetings. The discussion concerning disability applications must be confidential and closed to the general public.
2. The applicant must be notified of the time and date of the meeting and may attend or be represented.
3. The executive director shall provide to the board for its consideration a case history brief that includes membership history, medical examination summary, and the medical consultant's conclusions and recommendations.
4. The executive director may make an interim determination concerning eligibility for disability retirement benefits when the medical consultant's report verifies that a total disability exists. However, the board must review the interim determination and make final determination at its next regularly scheduled board meeting unless additional evidence or information is needed.

Benefit Calculation Examples

Teacher A

Age: 30 years

Service: 8 years

Final Average Monthly Salary: \$3,000

$\$3,000 \times 8 \text{ Years} \times 2\% = \480 month

Single Life Annuity Disability Benefit

Teacher B

Age: 50 years

Service: 25 years

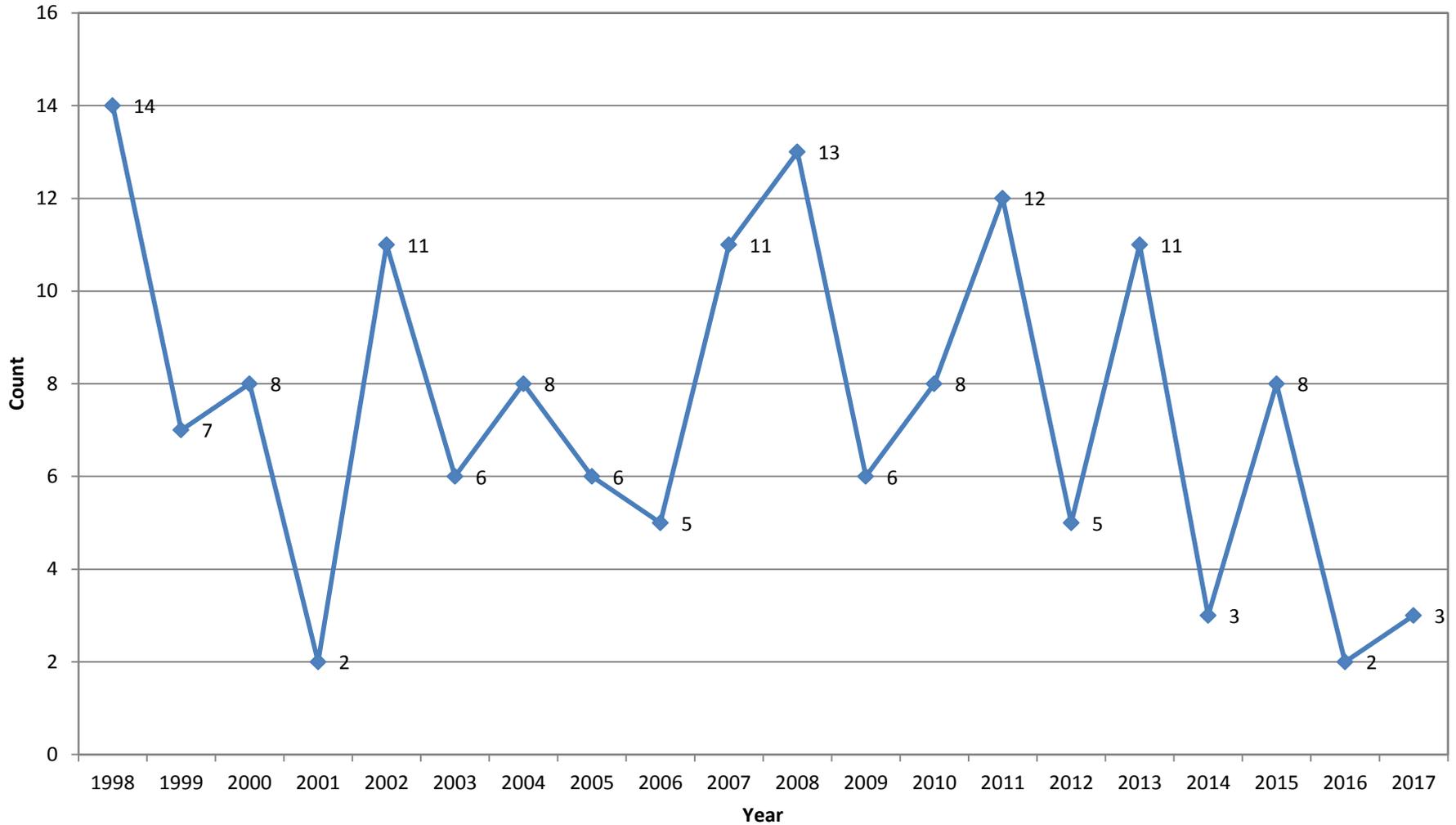
Final Average Monthly Salary: \$3,000

$\$3,000 \times 25 \text{ Years} \times 2\% = \$1,500 \text{ month}$

Single Life Annuity Disability Benefit

Disability Statistics

Disabilities By Year



Disability Summary 1998 - 2017

• Total disabilities approved 1998 - 2017	149*
Of 149, number of physical health disabilities:	129
Of 149, number of emotional health disabilities:	20
• Average number of disabilities approved per year:	7
• Of 149, number that are living and drawing benefits:	100
Of 149, number that are living and returned to work:	7
Of 149, number that are deceased:	42
• Of 149, option selected was:	
Count of Single Life:	98
Count of 100% Joint & Survivor:	33
Count of 50% Joint & Survivor:	13
Count of 5 Year Certain & Life:	1
Count of 10 Year Certain & Life:	3
Count of 20 Year Certain & Life:	1
• Of 100 living and drawing benefits:	
Average service credit in years:	15.3
Average age in years:	62
Average monthly benefit:	\$1,357
Average years benefit was received:	10.2
• Of 7 living and returned to work:	
Average service credit in years:	15.2
Average age in years:	59
Average monthly benefit:	\$1,366
Average years benefit was received:	5.4
*Approved disabilities removed from total if they returned to employment then refunded or retired.	

TFFR Board Reading – September 2017

NASRA Issue Brief: [State and Local Government Contributions to Statewide Pension Plans](#) – June 2017

Center for Retirement Research: [State and Local Pension Plan Funding Sputters in FY 2016](#) – July 2017

Center for Retirement Research: [A First Look at Alternative Investments and Public Pensions](#) – July 2017

Center for Retirement Research: [Social Security's Financial Outlook: The 2017 Update in Perspective](#) – July 2017

AON Hewitt: [Public Funds Can Still Compete](#) – July 2017

NC PERS: [Secure Choice 2.0: States blazing a path to retirement security for all](#) - July 2017