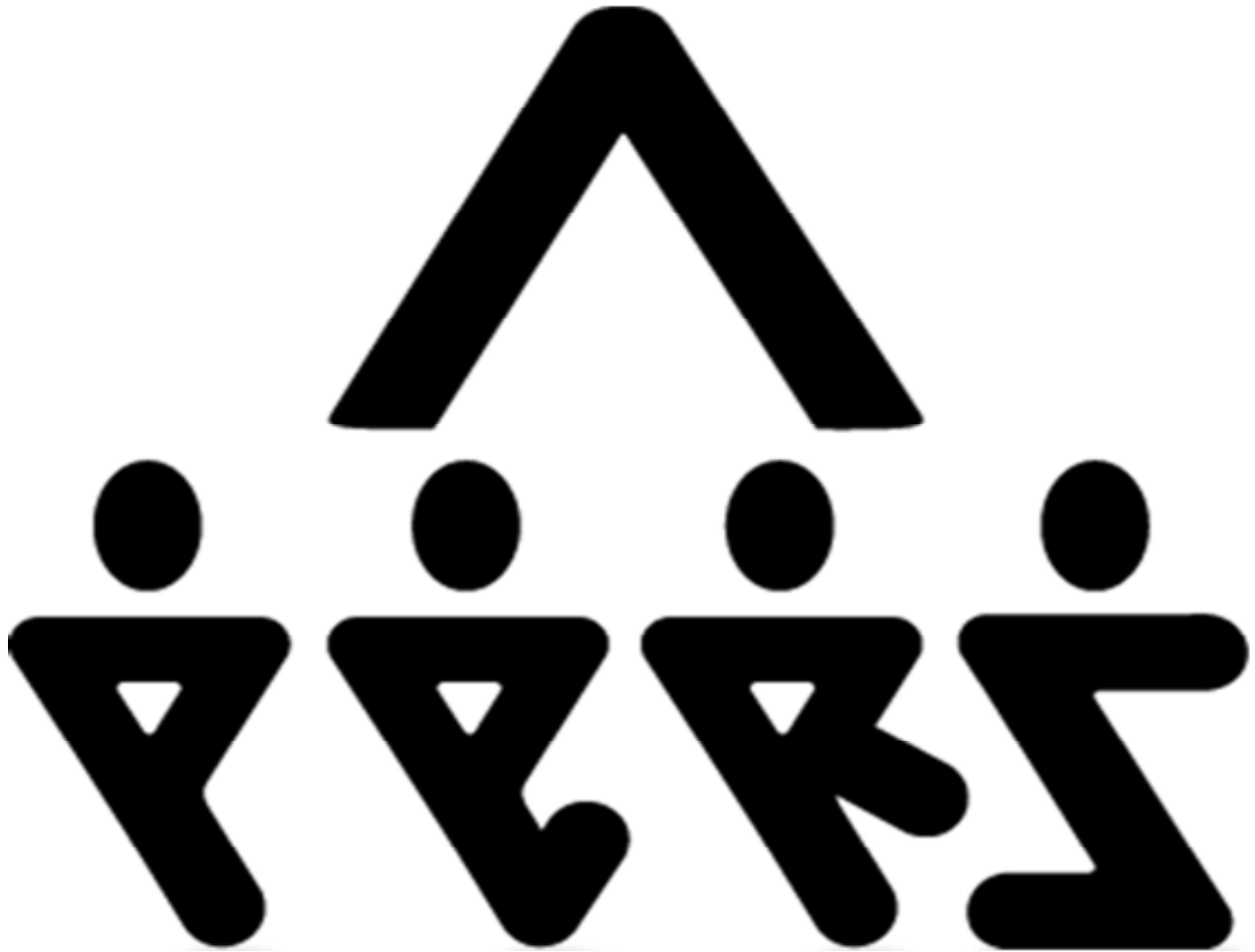


# 2017

FOR THE FISCAL YEARS ENDED JUNE 30, 2017 AND JUNE 30, 2016



**NORTH DAKOTA  
PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**AN AGENCY OF THE STATE OF NORTH DAKOTA**

# **Comprehensive Annual Financial Report**

*For the Fiscal Years Ended June 30, 2017 and June 30, 2016*

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Prepared by the staff of the North Dakota Public Employees Retirement System  
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To request an alternate format, please call PERS ADA Coordinator at 701-328-3918, or toll-free: 1-800-803-7377.*

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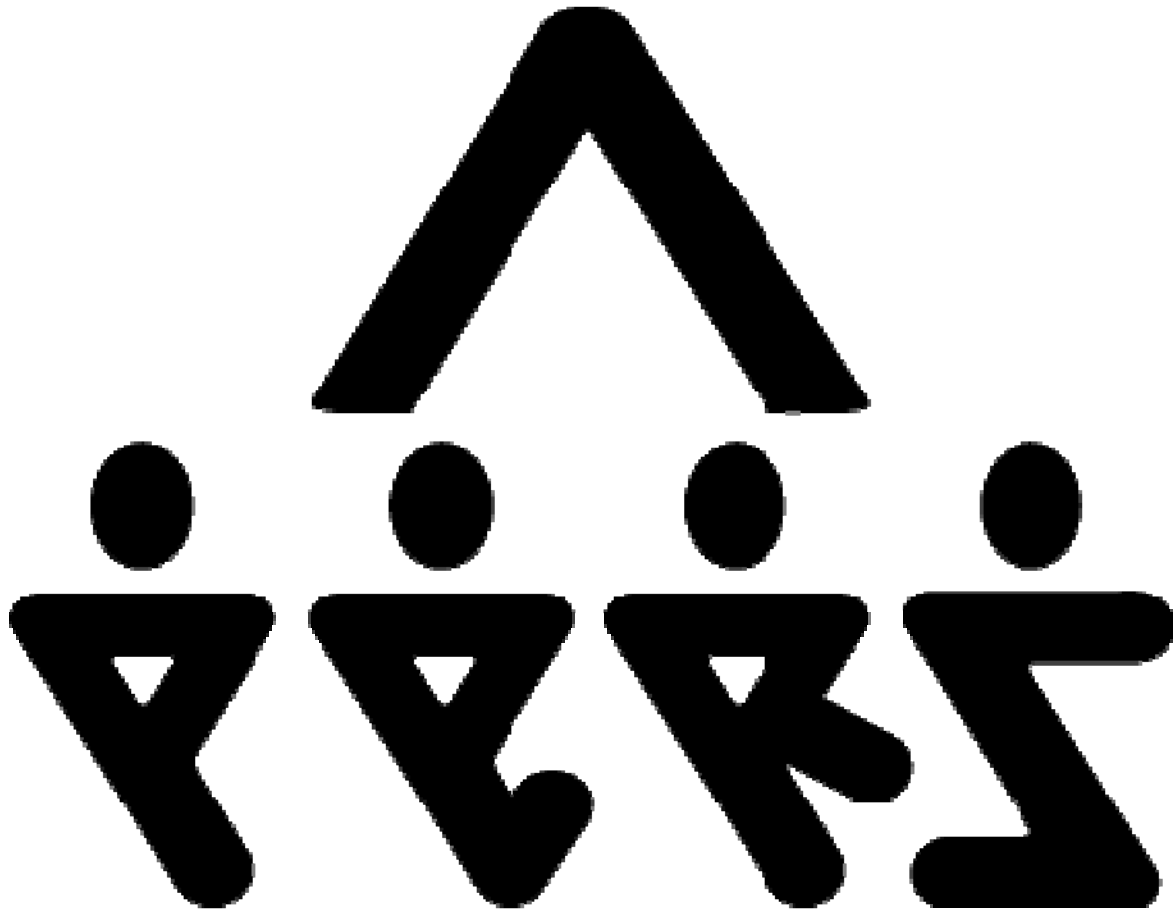
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**INTRODUCTORY SECTION**

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Public Pension Coordinating Council

**Recognition Award for Administration  
2017**

Presented to

***North Dakota Public Employees Retirement System***

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

*Presented by the Public Pension Coordinating Council, a confederation of*

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

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

Alan H. Winkle  
Program Administrator



Government Finance Officers Association

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

Presented to

**North Dakota Public Employees  
Retirement System**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2016**

Executive Director/CEO



**North Dakota  
Public Employees Retirement System**  
400 East Broadway, Suite 505 • Box 1657  
Bismarck, North Dakota 58502-1657

**Sharon Schiermeister**  
Interim Director  
(701) 328-3900  
1-800-803-7377

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FAX: (701) 328-3920 • EMAIL: [NDPERS-info@nd.gov](mailto:NDPERS-info@nd.gov) • [www.nd.gov/ndpers](http://www.nd.gov/ndpers)

December 18, 2017

Board of Trustees  
Members of the System

We are pleased to present the Comprehensive Annual Financial Report for the North Dakota Public Employees Retirement System (System) for the fiscal year ended June 30, 2017. The management of the System is responsible for both the accuracy of the data and the completeness and fairness of the presentation.

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

#### **Plan History and Services Provided**

The System is the administrator of three defined benefit pension plans and an optional defined contribution retirement plan. The System also manages and administers the retiree health insurance credit program, the uniform group insurance program, the deferred compensation program and the pretax benefits program. Following is a brief overview of the statistical and financial highlights for each of these programs for the fiscal year ended June 30, 2017.

#### **Defined Benefit Pension Plans**

The Public Employees Retirement System (PERS) is a cost-sharing multiple-employer retirement plan. PERS was established July 1, 1966 as a defined contribution plan and was changed to a defined benefit plan by the 1977 North Dakota Legislature. PERS covers substantially all employees of the State of North Dakota, its agencies and various participating political subdivisions. It also covers Supreme and District Court Judges, the National Guard Security Officers and Firefighters, and as of August 1, 2004, peace officers and correctional officers employed by political subdivisions. The Highway Patrolmen's Retirement System (HPRS) is a single-employer defined benefit plan established July 1, 1949 that covers substantially all sworn officers of the North Dakota Highway Patrol. The System became the administrator of this plan effective July 1, 1983. The Retirement Plan for Employees of Job Service North Dakota (Job Service Plan) is a single-employer defined benefit plan established July 1, 1961 and is limited to employees participating in the plan as of September 30, 1980. The System became the administrator of the Job Service plan effective August 1, 2003.

PERS has 23,351 contributing members and 11,110 retirees and beneficiaries currently receiving benefits. HPRS has 151 contributing members and 127 retirees and beneficiaries. The Job Service Plan has 8 contributing members and 200 retirees. The employers participating in PERS include 96 state agencies and 343 political subdivisions.

PERS, HPRS and Job Service Plan are accounted for as pension trust funds.

**Defined Contribution Retirement Plan**

An optional Defined Contribution Retirement Plan (DC Plan) was established effective January 1, 2000. The DC Plan was available to state employees who are in positions not classified by the Human Resource Management Services division of the State of North Dakota. Employees of the judicial branch or the Board of Higher Education and State Institutions under the jurisdiction of the Board of Higher Education are not eligible to participate in the Plan. The 2013 Legislative Assembly passed legislation to expand eligibility for the Plan to include all new state employees hired on or after October 1, 2013 through July 31, 2017. The Plan has 104 participants.

The defined contribution retirement plan is accounted for as a pension trust fund.

**Retiree Health Insurance Credit Program**

This program was created by the North Dakota Legislature in 1989. It is designed to provide members with a benefit that can be used to offset the cost of their health insurance premiums during their retirement years. There are 23,605 contributing members and 11,071 retired participants currently receiving benefits.

The retiree health insurance credit program is accounted for as an other employee benefit trust fund.

**Uniform Group Insurance Program**

Group Health Insurance. The System began administering the group health insurance plan in 1971. There are 28,537 active and retired contracts under this plan as of June 30, 2017. Total covered lives, including spouses and dependents, are 66,284. As of June 30, 2017 there were 156 political subdivisions participating in the group health program. The health insurance premiums paid to Sanford Health Plan for the fiscal year ended June 30, 2017 totaled \$309.6 million. This last year, the System continued its efforts to reduce the trend in health care costs by promoting wellness through on-line programs and supporting health club memberships and providing on-site wellness programs and premium discounts to employers that have on-site wellness programs. In addition, the System continued targeted programs that include smoking cessation, Health Pregnancy and diabetes management based on the Ashville Model. To address prescription drug costs, the System is focusing new efforts on reviewing specialty drug programs. The System also focused on compliance efforts relating to the federal Affordable Care Act which included providing technical assistance to participating employers in the group health plan.

Another component of this plan, which is being reported in compliance with GASB Statement 43, provides health care coverage to eligible retirees who are not yet eligible for Medicare. The premiums for this group are not age-rated and do not cover the costs of the coverage; therefore, the costs of this group are being subsidized through the active group rates. There are 353 retiree's currently receiving the subsidized premium.

Group Life Insurance. The System began administering the group life insurance plan in 1971. There are 18,250 active and 3,238 retired employees covered under the basic life insurance plan. Active employees have the option of purchasing additional life insurance under the employee supplemental, dependent supplemental, and spouse supplemental provisions of the plan. The life insurance premiums paid to Voya for the fiscal year ended June 30, 2017 totaled \$3.4 million. As of fiscal year end, there is \$1.671 billion of life insurance in force for all participants covered by this plan.



*Voluntary Insurance Products.* The 1995 North Dakota Legislature authorized the System to offer voluntary insurance products, specifically dental, vision and long term care insurance. On January 1, 1997, the System began offering a dental plan and long term care plan and on January 1, 2003, a vision plan was offered. There are 9,897 participants in the dental plan, 10,766 participants in the vision plan and 164 participants in the long term care plan.

*Employee Assistance Program.* The 1997 North Dakota Legislature authorized the System to administer an employer-sponsored Employee Assistance Program (EAP) for all state employees, effective August 1, 1997. The System has contracted with four EAP vendors to provide services to employees and their families. The System collects the monthly premiums from the employers and remits them to the appropriate vendor. Approximately 15,200 state employees are covered under this program.

The uniform group insurance plan is a public entity risk pool and is accounted for as an enterprise fund.

#### **Deferred Compensation Program**

This is a voluntary, supplemental retirement plan provided in accordance with Section 457 of the Internal Revenue Code. It allows eligible employees to defer and invest income on a pretax basis to be withdrawn at a later date, usually at retirement. The System has administered the Plan since 1987. Fourteen companies have agreed to provide investment services for the State's deferred compensation program. The System is the trustee for deferred compensation assets totaling \$98.1 million; provider companies hold the remaining plan assets of \$151.9 million in custodial accounts for the exclusive benefit of participants and their beneficiaries. Approximately 12,581 employees participate in this program.

The deferred compensation program is accounted for as an other employee benefit trust fund.

#### **Pretax Benefits Program (FlexComp)**

This program was established by the North Dakota Legislature in 1989 in accordance with Section 125 of the Internal Revenue Code. It allows eligible employees to elect to reduce their salaries to pay for qualified insurance premiums, medical expenses, and dependent care expenses on a pretax basis. There are 2,873 participants in the medical and dependent care spending accounts. Employee contributions to the spending accounts totaled \$5.55 million. Starting in January 2013, the System contracted with a benefits service company for processing spending account reimbursements.

The pretax benefits program is accounted for as an other employee benefit trust fund.

### **Major Initiatives**

#### **Retirement**

- Transitioned the retirement actuarial and consulting services to Gabriel Roeder Smith & Company as the new plan actuary, which included a successful replication of the previous actuary's valuation results.
- Began implementation of new benefit option factors that reflect updated actuarial assumptions
- Reviewed and adopted new economic assumptions effective for the 7/1/17 actuarial valuation, which included reducing the assumed rate of return for the pension plans from 8.0% to 7.75% and from 8.0% to 7.5% for the RHIC plan
- Implemented new GASB statement 74 relating to the unfunded liability on the RHIC plan

- Went out to bid for the provider of the 401(a) defined contribution and 457 deferred comp plans and the incumbent provider was selected
- Clarified policies regarding overtime and written agreement definitions and provided employers with resources to help alleviate their questions/concerns
- Received favorable IRS determination letters for the PERS and Highway Patrol plans
- Continued to de-risk the Job Service Plan by adopting a more conservative asset allocation
- Began efforts to implement legislation passed in the 2017 session to expand eligibility in the Law Enforcement Plan to include firefighters

#### **Group Insurance**

- Completed the renewal of the health plan effective July 1, 2017
- Completed the renewal of the retiree prescription drug plan effective January 1, 2017
- Implemented a strategy to provide information to employers and participants regarding the taxability of wellness program benefits
- Went out to bid on the life plan and selected the incumbent provider; benefits were enhanced and premiums remained stable
- Went out to bid on the vision plan and selected the incumbent provider effective January 1, 2018
- Began work on an initiative to offer a special enrollment for the NDPERS dental & vision plans for retirees
- Pursuant to legislative direction, provided information on a study of telehealth benefits available in the NDPERS health plan

#### **Administrative**

- Completed a redesign of the NDPERS website
- Reviewed administrative rules for proposed changes
- Implemented a Facebook page to further enhance communication efforts
- Implemented a mobile app for member self service
- Began efforts to implement an electronic payment policy and strategy for moving communications from mailings to electronic methods, as directed by the 2017 Legislative Assembly

#### **Financial Information**

The financial statements included in this report are the responsibility of the System's management and have been prepared in accordance with generally accepted accounting principles for governmental accounting and reporting as pronounced or adopted by the Governmental Accounting Standards Board and the Financial Accounting Standards Board. Management is also responsible for maintaining a system of adequate internal accounting controls designed to provide reasonable assurance that assets are safeguarded against loss from unauthorized use or disposition and that transactions are executed in accordance with management's authorization and are recorded properly to permit the preparation of financial statements in accordance with generally accepted accounting principles. Management has established a comprehensive framework of internal control to provide a reasonable basis for asserting that the financial statements are fairly presented. Because the cost of a control should not exceed the benefits to be derived, the objective is to provide reasonable, rather than absolute assurance, that the financial statements are free of any material misstatements.

The expenses of the System are monitored through two budgetary controls. The majority of the

administrative expenditures are appropriated each biennium by the North Dakota Legislature; certain statutorily prescribed expenses (including benefit payments, actuarial and consulting fees and audit fees) have received a continuing appropriation from the North Dakota Legislature and are reviewed directly by the System's Board.

#### Revenues and Expenses

Investment earnings, together with employee and employer contributions, are the funding sources for the benefits provided through the System. The main expenses of the System are benefit payments and the cost of administering the System. The following tables show the combined revenues and expenses for the PERS, HPRS and Job Service plans for fiscal years 2017 and 2016:

(Millions) Revenue Type	Fiscal Year 2017	Fiscal Year 2016	Change in \$ s	Percentage Change
Employee Contributions	\$ 77.5	\$ 75.7	\$ 1.8	2.4%
Employer Contributions	81.1	79.2	1.9	2.4
Investments	<u>325.5</u>	<u>16.5</u>	<u>309.0</u>	<u>1,872.7</u>
Total	\$484.1	\$ 171.4	\$ 312.7	1,877.5%
<b>Expense Type</b>				
Benefits	\$163.1	\$150.5	\$12.6	8.4%
Refunds & Transfers	9.0	8.5	0.5	5.9
Administrative Expenses	<u>2.7</u>	<u>2.6</u>	<u>0.1</u>	<u>3.8</u>
Total	\$174.8	\$161.6	\$13.2	18.1%

The increase in revenues reflects stronger financial markets. The increase in expenses is primarily due to an increase in the total number of retirees who are receiving pension payments.

#### Funding Status

The funding goal of any retirement system is to accumulate sufficient assets to pay all of its promised benefits as they come due. The annual valuation of the System's assets and liabilities performed by the System's actuary provides the best current estimate of the System's funding status and allows the Board to monitor funding progress.

A common measure of the strength of a pension system is to express the assets as a percentage of liabilities - the greater the percentage, the stronger the funding position of the System. The July 1, 2017 actuarial valuation reports the actuarial value of assets for PERS at \$2,633 million, which is 70.1% of the actuarial accrued liabilities of \$3,727 million. The actuarial value of assets for HPRS is \$70.7 million, which is 75.2% of the actuarial accrued liabilities of \$94.0. The Job Service Plan is fully funded. The actuarial value of assets for the Job Service Plan is \$98.4 million, which is 154.2% of the actuarial present value of benefits of \$63.8 million.

The Retiree Health Insurance Credit Program is advance-funded on an actuarially determined basis. As of fiscal year end, the program's actuarial value of assets is 58.3% of the actuarial accrued liability. The Retiree Health Implicit Subsidy is not advance-funded. As of June 30, 2015, the date of the last actuarial valuation, the unfunded actuarial accrued liability for this plan is \$6.9 million.

Funding progress is covered in more detail in the actuarial section of this report.

#### Investments

The North Dakota State Investment Board (SIB) invests the funds for the PERS, HPRS and Job Service Plan. Chapter 21-10 of the North Dakota Century Code states that the SIB shall apply the prudent investor rule when investing funds under its supervision. The prudent investor rule means that in making investments, the fiduciaries shall exercise the judgment and care, under the circumstances

then prevailing, that an institutional investor of ordinary prudence, discretion and intelligence exercises in the management of large investments entrusted to it, not in regard to speculation, but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income. All funds must be invested exclusively for the benefit of the System's members and all investments are made in accordance with the System's long-term investment objectives and performance goals.

The combined market value of assets for PERS and HPRS as of June 30, 2017 is \$2.8 billion, which is an increase of 13.1% from the previous year. The market value of assets for Job Service as of June 30, 2016 is \$97.3 million, an increase of 0.7% from the previous year. During the fiscal year ended June 30, 2017, the System's portfolio remained broadly diversified with investments in domestic and international equities, domestic and international fixed income securities, real estate, private equity, timber, infrastructure and cash equivalents.

The PERS and HPRS assets had an annualized rate of return of 13.05% for the fiscal year ended June 30, 2017. The annualized rate of return was 5.49% for the last three years and 9.16% for the last five years. The annualized rate of return for the fiscal year ended June 30, 2017 for the Job Service Plan was 5.63%. The annualized rate of return was 4.79% for the last three years and 7.85% for the last five years.

The assets of the Retiree Health Insurance Credit Program are also invested with the SIB. The market value of assets as of June 30, 2017 is \$116.2 million, which is 14.4% higher than the previous year. The assets earned an annualized rate of return of 11.81% for the fiscal year ended June 30, 2017. The annualized rate of return was 5.09% for the last three years and 8.80% for the last five years. During the fiscal year ended June 30, 2017, the System's portfolio remained broadly diversified with investments in domestic and international equities and fixed income securities.

The assets of the defined contribution retirement plan are invested according to the direction of each participating member. The participant can select from fifteen investment categories and a mutual fund window, as provided by the Board. The investment categories are designed to cover a broad range to allow the participant to structure an investment strategy that meets their individual return objectives and risk tolerances. The market value of assets in the defined contribution retirement plan as of June 30, 2017 is \$12.0 million, which is a 10.2% increase from the previous year.

More detailed information on investment policies, schedule of fees & commission, performance results and asset allocation can be found in the Investment Section of this report on pages 86-102.

#### **Independent Audit**

The financial statements contained in this report were audited by the accounting firm of CliftonLarsenAllen LLP, under the direction of the North Dakota State Auditor. The auditors' opinion was unqualified for the System for the year ended June 30, 2017.

#### **Achievement Awards**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the North Dakota Public Employees Retirement System for its comprehensive annual financial report (CAFR) for the fiscal year ended June 30, 2016. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. The CAFR must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. The

North Dakota Public Employees Retirement System has received a Certificate of Achievement for the last twenty one consecutive years (fiscal years ended June 30, 1996 - 2016). We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to GFOA.

**Acknowledgements**

The preparation of this report is the result of the combined effort of the System's staff. It is intended to provide complete and accurate information concerning the activities and results of operations. Copies of this report are available to employers, members and other interested parties upon request or it can be downloaded from the System's website.

Sincerely,



Sharon Schiermeister, CPA  
Interim Executive Director



Derrick Hohbein, CPA  
Chief Financial Officer

## THE RETIREMENT BOARD

The Retirement Board is the governing authority of the Public Employees Retirement System and consists of nine persons. A North Dakota citizen who is neither a state or political subdivision employee is appointed by the Governor to serve as Chairman of the Board. A member of the Attorney General's legal staff and the State Health Officer are also appointed to serve on the Board. One Board member is elected by retired PERS members, two members are appointed by legislative management, and the remaining three Board members are elected from active employees currently contributing to PERS. Three members of the Retirement Board are included in the membership of the North Dakota State Investment Board (SIB). The Retirement Board has specified that the members who serve on the SIB are to be selected from among the four elected members.

The Board members, and their respective terms, are as follows:

Vacant  
Chairman



Mylynn Tuft  
Health Department  
Appointee



Troy Seibel  
Attorney General Appointee  
Term Expires 6/30/21



Casey Goodhouse  
Member Elected  
Term Expires 6/30/19



Yvonne Smith  
Retiree Elected  
Term Expires 6/30/19



Mike Sandal  
Member Elected  
Term Expires 6/30/17



Kim Wassim  
Member Elected  
Term Expires 6/30/18



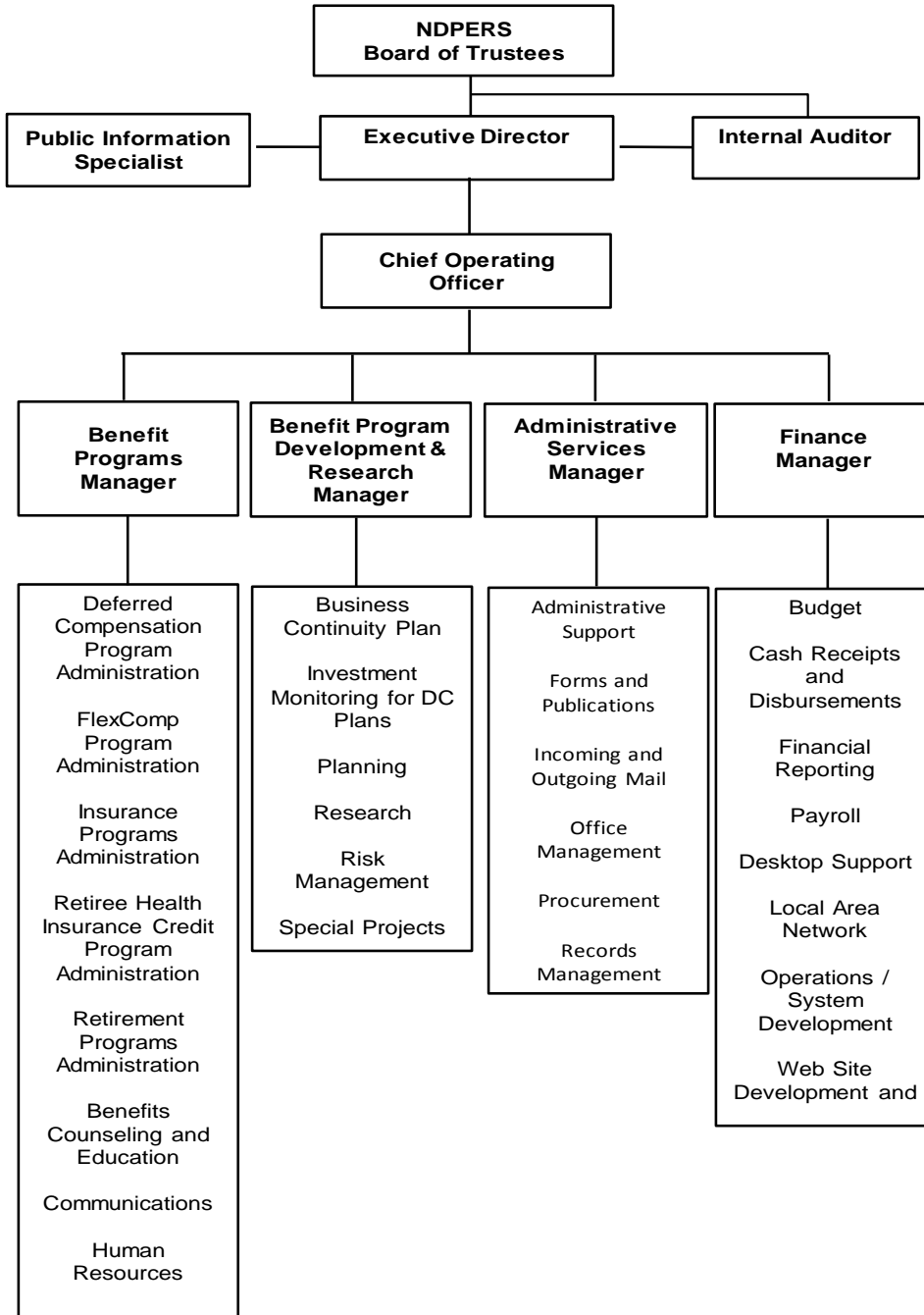
Senator Dick Dever  
Appointed by  
Legislative Management



Rep. Pamela Anderson  
Appointed by  
Legislative Management

*The Board's mission is to design, communicate and efficiently administer a viable employee benefits program within a framework of prudent risk taking, applicable state and federal laws, and professional and ethical standards so as to provide an employee benefit package that is among the best available from public and private employers in the upper Midwest.*

**Organizational  
Chart**



**ADMINISTRATION**

Sparb Collins, Executive Director  
 Kathy Allen, Benefit Programs Manager  
 Jamie Kinsella, CPA, CIA, *Chief Audit Executive*  
 Bryan Reinhardt, *Benefit Program Development and Research Manager*  
 Derrick Hohbein, CPA, *Finance Manager*  
 Sharon Schiermeister, CPA, *Chief Operating Officer*  
 Janis Lund, *Administrative Services Manager*

**ACTUARY:**  
Gabriel Roeder Smith & Company  
Chicago, IL

**AUDITOR:**  
Clifton Larson Allen LLP  
Baltimore, MD

**Consulting &  
Professional**

**DENTAL INSURANCE CARRIER:**  
Delta Dental of Minnesota  
Minneapolis, MN

**DISABILITY CONSULTANT:**  
Mid Dakota Clinic  
Bismarck, ND

**Services**

**EMPLOYEE ASSISTANCE PROGRAM VENDORS:**

Deer Oaks EAP Services  
San Antonio, TX

St. Alexius/Heartview  
Bismarck, ND

Live Well Solutions  
Fargo, ND

Village Family Services  
Fargo, ND

**HEALTH INSURANCE CARRIER:**  
Sanford Health Plan  
Sioux Falls, SD

**INSURANCE CONSULTANT:**  
Deloitte Consulting LLP  
Minneapolis, MN

**INVESTMENT SERVICES:**  
North Dakota Retirement &  
Investment Office  
Bismarck, ND

**LEGAL COUNSEL:**  
North Dakota Attorney General's  
Office  
Bismarck, ND

**LIFE INSURANCE CARRIER:**  
Voya Financial  
New York, NY

**LONG TERM CARE INSURANCE  
CARRIER:**  
UNUM  
Portland, ME

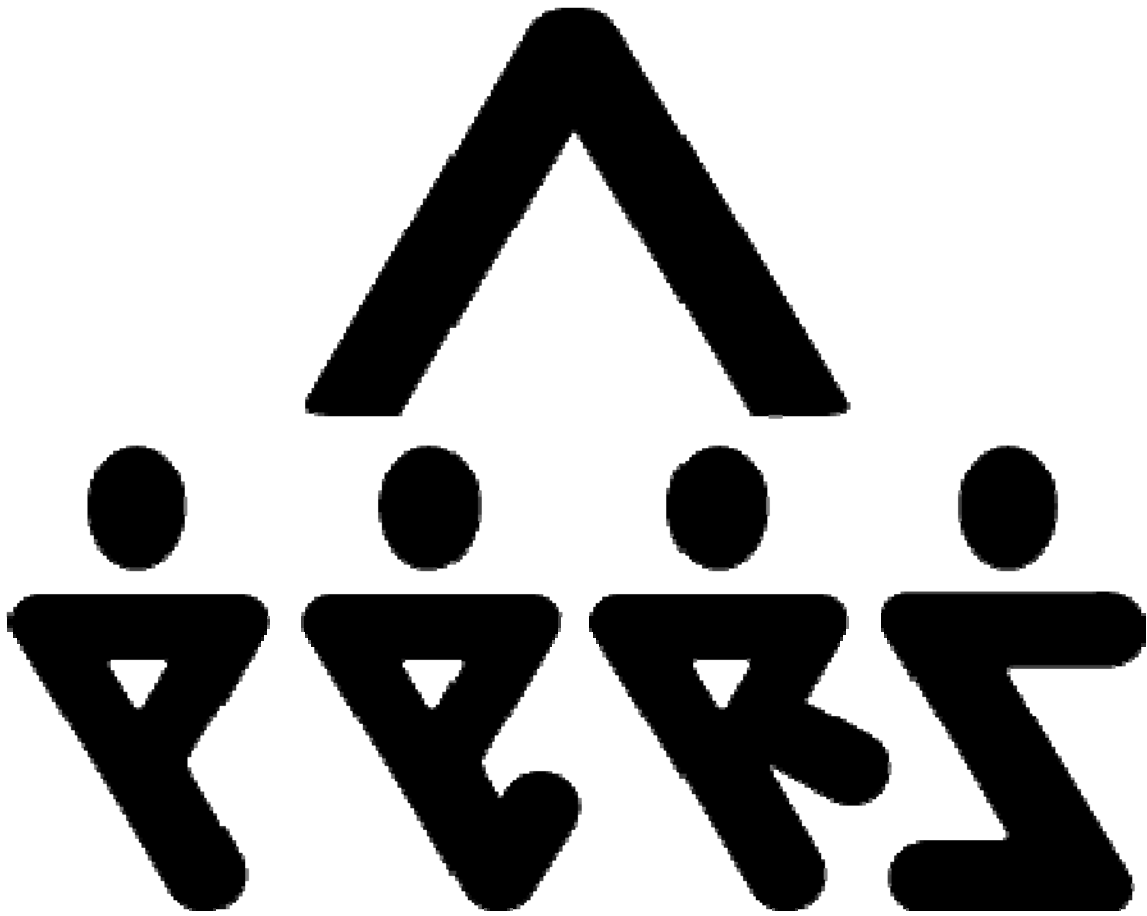
**3<sup>rd</sup> PARTY PAYMENT PROCESSING:**

ADP (Flexcomp Reimbursements)  
Roseland, NJ

ASI Flex (RHIC Reimbursements)  
Columbia, MO

**VISION INSURANCE CARRIER:**  
Superior Vision  
Rancho Cordova, CA





# FINANCIAL SECTION



**CliftonLarsonAllen**

CliftonLarsonAllen LLP  
CLAcconnect.com

**INDEPENDENT AUDITORS' REPORT**

Governor Doug Burgum  
The Legislative Assembly

Sharon Schiermeister, Interim Executive Director  
North Dakota Public Employees' Retirement System  
Bismarck, North Dakota

**Report on the Financial Statements**

We have audited the accompanying financial statements of the proprietary fund and each of the individual fiduciary funds of the North Dakota Public Employees' Retirement System (the System), a department of the State of North Dakota, as of and for the years ended June 30, 2017 and 2016, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

**Management's Responsibility for the Financial Statements**

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

**Auditors' Responsibility**

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

**Opinions**

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the proprietary fund and the net position of each of the individual fiduciary funds of the System as of June 30, 2017 and 2016, and the respective changes in financial and net position and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.



**Emphasis of Matter**

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

**Other Matters**

**Required Supplementary Information**

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

**Other Information**

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the System’s basic financial statements. The schedules of investment expenses, administrative expenses and consultant expenses and statement of appropriations (supplementary information), as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory, investment, actuarial and statistical section, as listed in the table of contents, have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

**Other Reporting Required by Government Auditing Standards**

In accordance with Government Auditing Standards, we have also issued our report dated November 20, 2017 on our consideration of the System’s internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the result of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the System’s internal control over financial reporting and compliance.

*CliftonLarsonAllen LLP*

**CliftonLarsonAllen LLP**

Baltimore, Maryland  
November 20, 2017

**North Dakota Public Employees Retirement System – Financial Section  
Management’s Discussion and Analysis  
June 30, 2017 and 2016**

Management’s Discussion and Analysis (MD&A) of the North Dakota Public Employees Retirement System’s (NDPERS) financial performance provides an overview of the agency’s financial activities for the fiscal years ended June 30, 2017 and 2016. Please read it in conjunction with the basic financial statements, which follow this discussion.

NDPERS administers a total of seven fiduciary funds. This includes three defined benefit pension trust funds (PERS, Highway Patrol and Job Service), one defined contribution pension trust fund, the retiree health insurance credit trust fund, the deferred compensation trust fund and pretax benefits trust fund. NDPERS also administers one proprietary fund, the Uniform Group Insurance Program, which is an enterprise fund.

**Financial Highlights – Pension and Other Employee Benefit Plans**

- As of June 30, 2017 and 2016, the Plan Fiduciary Net Position (FNP) as a percentage of the Total Pension Liability (TPL) for each pension and OPEB fund is shown below:

	<u>2017</u>	<u>2016</u>
Public Employees Retirement System	62.7%	71.1%
Highway Patrolmen Retirement System	78.0%	74.9%
Retirement Plan for Employees of Job Service of ND	152.9%	157.7%
Retiree Health Insurance Credit Fund	59.8%	56.5%

The increase in the FNP as a percentage of the TPL for the Highway Patrol Retirement System and the Retiree Health Insurance Credit Fund was the investment earnings in the current year. The decrease in the FNP as a percentage of the TPL for the Public Employees Retirement System and the Job Service of ND were changes in the actuarial assumptions.

- The net position for all trust funds administered by NDPERS increased \$356.8 million or 12.8% during the fiscal year ended June 30, 2017. This increase is primarily due to increased investment earnings as well as increased contributions from members and their employers.

<i>(in thousands)</i>	<u>Change in Net Position</u>
Public Employees Retirement System	\$ 312,940
Highway Patrolmen Retirement System	7,525
Retiree Health Insurance Credit Fund	14,673
Defined Contribution Retirement Fund	1,085
Pretax Benefits Fund	(420)
Deferred Compensation Plan	20,235
Retirement Plan for Employees of Job Service ND	731
Total Increase in Plan Net Position	<u>\$ 356,769</u>

**Financial Highlights – Uniform Group Insurance Program**

**North Dakota Public Employees Retirement System – Financial Section  
Management’s Discussion and Analysis  
June 30, 2017 and 2016**

- Net position increased by \$3.93 million or 9.8%. The increase is primarily due to the recognition of the estimated revenue resulting from the suspension of the Health Insurer Tax for the 2017 calendar year.

## **Overview of the Financial Statements**

The MD&A is intended to serve as an introduction and overview of the basic financial statements for NDPERS, which include the fund financial statements, notes to the financial statements, required supplementary information and other supplementary information.

## **Financial Statements**

There are two financial statements presented for the fiduciary funds. The Statements of Fiduciary Net Position as of June 30, 2017 and 2016 indicate the net position available to pay future benefits and gives a snapshot at a particular point in time. The Statements of Changes in Fiduciary Net Position for the years ended June 30, 2017 and 2016 provide a view of the current year’s additions and deductions to the individual trust funds.

There are three financial statements presented for the proprietary fund. The Statements of Net Position as of June 30, 2017 and 2016 provide a snapshot at a particular point in time of the net position available for use by this program. The Statements of Revenues, Expenses, and Changes in Fund Net Position for the years ended June 30, 2017 and 2016, provide a view of the current year’s operating and non-operating revenues and expenses for the enterprise fund. The Statements of Cash Flows for the years ended June 30, 2017 and 2016 show the cash used and provided by operating activities as well as the net increase or decrease in cash due to operating and investing activities for the years presented.

*Notes to the financial statements.* The notes provide additional information that is essential for a full understanding of the data provided in the fund financial statements. The notes to the financial statements can be found on pages 17-53 of this report.

*Required supplementary information.* The required supplementary information consists of a Schedule of Employer Contributions, Schedule of Changes to the Net Pension Liability and Related Ratios, and Schedule of Investment Returns for the defined benefit pension trust funds, Schedule of Net OPEB Liability and related ratios, Schedule of Employer Contributions and Schedule of Investment Returns for the retiree health insurance credit advance funded plan and a schedule of employer contributions and schedule of funding progress for the implicit subsidy unfunded plan.

*Other supplementary schedules.* The other supplementary schedules consist of a Schedule of Administrative Expenses, Schedule of Investment Expenses, Schedule of Consultant Expenses and Statement of Appropriations.

## **Financial Analysis**

The financial results for fiscal years 2017, 2016 and 2015 are summarized on page 5. The information in the tables on the following page are condensed from the Financial Statements.

**North Dakota Public Employees Retirement System – Financial Section  
Management’s Discussion and Analysis  
June 30, 2017 and 2016**

**Statement of Fiduciary Plan Net Position (in thousands)**

	June 30, 2017	% Change	June 30, 2016	% Change	June 30, 2015
<b>Assets</b>					
Cash	\$ 10,748	-1.0%	\$ 10,855	19.0%	\$ 9,119
Receivables	19,955	-8.2%	21,730	23.3%	17,621
Investments	3,099,718	13.1%	2,740,379	0.7%	2,720,705
Prepaid Expenses	-	-	-	-	-
Invested Securities Lending Collateral	15,936	-35.5%	24,703	-	-
Software & Equipment, Net of Accumulated Depreciation	2,437	-23.1%	3,168	-17.2%	3,827
<b>Total Assets</b>	<b>3,148,794</b>	<b>12.4%</b>	<b>2,800,835</b>	<b>1.8%</b>	<b>2,751,272</b>
<b>Liabilities</b>					
Long-Term Liabilities Outstanding	191	7.9%	177	22.1%	145
Other Liabilities	19,480	-31.2%	28,304	501.2%	4,708
<b>Total Liabilities</b>	<b>19,671</b>	<b>-30.9%</b>	<b>28,481</b>	<b>486.9%</b>	<b>4,853</b>
<b>Net Position</b>	<b>\$ 3,129,123</b>	<b>12.9%</b>	<b>\$ 2,772,354</b>	<b>0.9%</b>	<b>\$ 2,746,419</b>

The total assets for all fiduciary funds as of June 30, 2017 were \$3.15 billion and were comprised mostly of investments. For the fiscal year ended June 30, 2017 net position increased \$357 million. The increase was primarily due to financial market gains during the fiscal year. For the fiscal year ended June 30, 2016, net position increased by \$26 million. This increase was primarily due to contributions and financial market gains during the fiscal year.

Total liabilities as of June 30, 2017 decreased \$8.8 million due to a reduction in securities lending collateral. Total liabilities as of June 30, 2016 increased \$23.6 million over the prior year due to additions to securities lending collateral.

**Statement of Changes in Fiduciary Plan Net Position (in thousands)**

	June 30, 2017	% Change	June 30, 2016	% Change	June 30, 2015
<b>Additions</b>					
Contributions	\$ 187,956	1.7%	\$ 184,807	7.5%	\$ 171,971
Transfers In	2,498	-89.7%	24,301	4459.3%	533
Net Investment Income	350,441	2251.8%	14,901	-84.0%	92,903
Other	13,448	27.9%	10,512	28.6%	8,172
<b>Total Additions</b>	<b>554,343</b>	<b>136.4%</b>	<b>234,521</b>	<b>-14.3%</b>	<b>273,579</b>
<b>Deductions</b>					
Benefit Payments	183,070	6.7%	171,585	12.2%	152,988
Transfers Out	765	-96.9%	24,297	4458.5%	533
Refunds	8,981	11.4%	8,060	8.3%	7,442
Administrative Expenses	4,758	2.4%	4,645	14.2%	4,066
<b>Total Deductions</b>	<b>197,574</b>	<b>-5.3%</b>	<b>208,587</b>	<b>26.4%</b>	<b>165,029</b>
<b>Change in Net Position</b>	<b>\$ 356,769</b>	<b>1275.7%</b>	<b>\$ 25,934</b>	<b>-76.1%</b>	<b>\$ 108,550</b>

**North Dakota Public Employees Retirement System – Financial Section  
Management’s Discussion and Analysis  
June 30, 2017 and 2016**

Additions. Contributions, transfers in and earnings on invested funds are the primary additions that are accumulated and used to pay benefits for each of the plans. Contributions and transfers in, combined, decreased by \$18.7 million for the year ended June 30, 2017 and increased \$36.6 million for the year ended June 30, 2016. This was primarily due to a one-time election in 2016 that allowed participants of the defined contribution plan a three month window to transfer back into the defined benefit plan. The plans experienced positive investment earnings of \$350.4 million for the fiscal year ending June 30, 2017, positive investment earnings of \$14.9 million for the fiscal year ending June 30, 2016, and positive investment earnings of \$92.9 million in 2015. The change in Other Additions for June 30, 2017 and June 30, 2016 is primarily due to an increase in service purchase payments received during each fiscal year.

Deductions. Total deductions decreased by \$11.0 million or 5.3% for the fiscal year ended June 30, 2017. Total deductions increased by \$43.6 million or 26.4% for the fiscal year ended June 30, 2016. This increase was due to an increase in benefit payments which reflects the increase in the total number of retirees who are receiving pension payments, as well as the significant increase in refunds/transfers. The decrease (and increase for the year ended June 30, 2016) in refunds/transfers was due to Senate Bill 2015, which allowed a one-time election for members of the defined contribution plan to move back into the PERS defined benefit plan. Administrative expenses in the RHIC fund increased 97.8% due to the portability of RHIC benefit payments and the outsourcing of the payment functionality to ASI Flex. The increase in benefit payments was in part due to Senate Bill 2015, which allowed a one time election for members of the defined contribution plan to move back into the PERS defined benefit plan, with a number of those members retiring shortly after moving back.

**Statement of Proprietary Fund Net Position (in thousands)**

	June 30, 2017	% Change	June 30, 2016	% Change	June 30, 2015
<b>Assets</b>					
Cash + Investments	\$ 46,785	-2.6%	\$ 48,033	1.2%	\$ 47,461
Receivables	6,145	1750.9%	332	-60.2%	834
Software	983	-23.0%	1,277	-17.2%	1,543
Total Assets	<u>53,913</u>	8.6%	<u>49,642</u>	-0.4%	<u>49,838</u>
<b>Liabilities</b>					
Long-Term Liabilities	93	2.2%	91	12.3%	81
Other Liabilities	9,981	3.6%	9,638	58.3%	6,090
Total Liabilities	<u>10,074</u>	3.5%	<u>9,729</u>	57.7%	<u>6,171</u>
<b>Net Position</b>	<u>\$ 43,839</u>	9.8%	<u>\$ 39,913</u>	-8.6%	<u>\$ 43,667</u>

The net position for the proprietary fund increased by \$3.93 million during the fiscal year ended June 30, 2017. The increase is primarily due to the recognition of the estimated revenue resulting from the suspension of the Health Insurer Tax for the 2017 calendar year. Total assets, as of June 30, 2016, were \$49.6 million and were comprised mainly of cash and investments. Total assets decreased by \$0.2 million from the prior fiscal year.

**North Dakota Public Employees Retirement System – Financial Section  
Management’s Discussion and Analysis  
June 30, 2017 and 2016**

Total liabilities, as of June 30, 2017, were \$10.1 million and \$9.7 million as of June 30, 2016 and were comprised mostly of unearned premiums, which represent premiums received before they are due as well as a liability to Sanford Health Plan as further explained in Note 15.

The net position of the proprietary fund consists primarily of cash and is to pay administrative expenses of the uniform group insurance program, reduce premium payments/increases, or increase insurance coverage.

**Statement of Changes in Proprietary Fund Net Position (in thousands)**

	June 30, 2017	% Change	June 30, 2016	% Change	June 30, 2015
<b>Operating Revenues</b>					
Premium Revenues	\$ 332,458	-0.7%	\$ 334,889	15.8%	\$ 289,237
Administrative Fee	1,123	-1.3%	1,138	4.2%	1,092
Miscellaneous	4,815	240.1%	(3,438)	-136.0%	9,560
Total Operating Revenues	<u>338,396</u>	1.7%	<u>332,589</u>	10.9%	<u>299,889</u>
<b>Non-Operating Revenues</b>					
Net Investment Income	99	-83.9%	616	1611.1%	36
Total Revenues	<u>338,495</u>	1.6%	<u>333,205</u>	11.1%	<u>299,925</u>
<b>Operating Expenses</b>					
Premium Expenses	332,393	-0.7%	334,834	13.6%	294,709
Administrative Expenses	2,038	8.9%	1,871	-5.7%	1,984
Total Operating Expenses	<u>334,431</u>	-0.7%	<u>336,705</u>	13.5%	<u>296,693</u>
<b>Non-Operating Expense</b>					
Transfer In	-	-	1	-	-
Transfer Out	138	-45.9%	255	-27.1%	350
<b>Change in Net Position</b>	<u>\$ 3,926</u>	204.6%	<u>\$ (3,754)</u>	-230.3%	<u>\$ 2,882</u>

The net position for the proprietary fund increased by \$3.93 million during the fiscal year ended June 30, 2017. The increase is primarily due to the recognition of the estimated revenue resulting from the suspension of the Health Insurer Tax for the 2017 calendar year. The net position for the proprietary fund decreased by \$3.75 million during the fiscal year ended June 30, 2016. The decrease was primarily due to operating expenses exceeding operating revenues as well as a settlement of ACA fees with Blue Cross Blue Shield of North Dakota.

**Contacting NDPERS Financial Management**

This financial report is designed to provide our members, annuitants, employers, business partners and the general public with a general overview of the System’s financial activities. If you have questions about this report or need additional financial information, contact the North Dakota Public Employees Retirement System, PO Box 1657, Bismarck, ND 58502.



**North Dakota Public Employees Retirement System – Financial Section**  
**Statement of Net Position – Proprietary Fund**  
**For the Fiscal Year Ended June 30, 2017 and 2016**

	Uniform Group Insurance Program	
	2017	2016
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and Cash Equivalents	\$ 9,074,314	\$ 11,335,688
Invested Cash	1,772,954	3,098,967
Commingled Domestic Fixed Income Investments	35,938,094	33,598,449
Accounts Receivable	6,117,866	318,497
Due from Fiduciary Funds	27,612	13,325
Total Current Assets	<u>52,930,840</u>	<u>48,364,926</u>
<b>NONCURRENT ASSETS</b>		
Capital Assets (Net of Depreciation/Amortization)	982,693	1,277,270
Total Noncurrent Assets	<u>982,693</u>	<u>1,277,270</u>
Total Assets	<u>53,913,533</u>	<u>49,642,196</u>
<b>LIABILITIES</b>		
<b>CURRENT LIABILITIES</b>		
Salaries Payable	85,583	76,910
Accounts Payable	103,933	666,888
Due to Sanford Health Plan	3,000,000	3,000,000
Due to Blue Cross Blue Shield of ND	1,195,703	-
Due to Fiduciary Funds	49,490	360,379
Due to Other State Agencies	6,668	11,318
Unearned Premiums	5,532,355	5,515,692
Accrued Compensated Absences	7,395	7,102
Total Current Liabilities	<u>9,981,127</u>	<u>9,638,289</u>
<b>NONCURRENT LIABILITIES</b>		
Accrued Compensated Absences	92,938	90,450
Total Liabilities	<u>10,074,065</u>	<u>9,728,739</u>
<b>NET POSITION</b>		
Net Investment in Capital Assets	982,693	1,277,270
Restricted for Benefits	6,000,000	6,000,000
Unrestricted Net Position	<u>36,856,775</u>	<u>32,636,187</u>
Total Net Position	<u>\$ 43,839,468</u>	<u>\$ 39,913,457</u>

**North Dakota Public Employees Retirement System – Financial Section**  
**Statements of Revenues, Expenses, and Changes in Fund Net Position—Proprietary Fund**  
**For the Fiscal Year Ended June 30, 2017 and 2016**

	Uniform Group Insurance Program	
	2017	2016
<b>OPERATING REVENUES</b>		
Premium Revenues	\$ 332,458,367	\$ 334,888,620
Administrative Fee	1,122,554	1,138,380
Underwriting Gain (Loss)	4,813,487	(3,476,314)
Miscellaneous	732	37,500
Total Operating Revenues	<u>338,395,140</u>	<u>332,588,186</u>
<b>OPERATING EXPENSES</b>		
Premium Expenses	332,392,809	334,833,893
Salaries and Wages	951,768	858,704
Operating Expenses	495,618	491,657
Professional Fees	230,689	131,847
Data Processing	65,397	98,721
Amortization	294,577	290,112
Total Operating Expenses	<u>334,430,858</u>	<u>336,704,934</u>
Operating Income (Loss)	<u>3,964,282</u>	<u>(4,116,748)</u>
<b>NON-OPERATING REVENUES AND EXPENSES</b>		
Investment Income	205,720	658,097
Investment Expenses	(106,491)	(41,785)
Total Non-Operating Revenues and Expenses	<u>99,229</u>	<u>616,312</u>
<b>INCOME (LOSS) BEFORE TRANSFERS</b>	4,063,511	(3,500,436)
<b>TRANSFERS IN</b>	-	1,350
<b>TRANSFERS OUT</b>	<u>137,500</u>	<u>255,000</u>
Change in Net Position	<u>3,926,011</u>	<u>(3,754,086)</u>
Total Net Position - Beginning of Year	<u>39,913,457</u>	<u>43,667,543</u>
<b>TOTAL NET POSITION - END OF YEAR</b>	<u>\$ 43,839,468</u>	<u>\$ 39,913,457</u>

**North Dakota Public Employees Retirement System – Financial Section  
Statements of Cash Flows – Proprietary Fund  
For the Fiscal Year Ended June 30, 2017 and 2016**

	Uniform Group 2017	Insurance Program 2016
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Premiums Collected	\$ 332,458,367	\$ 334,888,620
Administrative Fees Collected	1,327,607	1,679,741
Payments to Suppliers	(474,495)	(694,756)
Premiums Paid	(332,392,809)	(334,833,893)
Payments to Employees	(940,314)	(843,706)
Underwriting Gain (Loss)	(1,188,559)	-
Miscellaneous Income	732	37,500
Net Cash Provided (Used) by Operating Activities	<u>(1,209,471)</u>	<u>233,506</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Net Purchase of Investments	(2,339,645)	(33,598,449)
Investment Income	205,720	658,097
Investment Expense	(106,491)	(41,785)
Net Cash Used by Investing Activities	<u>(2,240,416)</u>	<u>(32,982,137)</u>
<b>CASH FLOWS FROM CAPITAL FINANCING ACTIVITIES</b>		
Purchases of Software	-	(24,352)
Net Cash Used by Noncapital Financing Activities	<u>-</u>	<u>(24,352)</u>
<b>CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES</b>		
Transfers In	-	1,350
Transfers Out	(137,500)	(255,000)
Net Cash Used by Capital Financing Activities	<u>(137,500)</u>	<u>(253,650)</u>
<b>NET CHANGE IN CASH AND CASH EQUIVALENTS</b>	(3,587,387)	(33,026,633)
Cash and Cash Equivalents - Beginning of Year	<u>14,434,655</u>	<u>47,461,288</u>
<b>CASH AND CASH EQUIVALENTS - END OF YEAR</b>	<u>\$ 10,847,268</u>	<u>\$ 14,434,655</u>
<b>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES</b>		
Operating Income (Loss)	\$ 3,964,282	\$ (4,116,748)
Adjustments to Reconcile Operating Income (Loss) to Net Cash Provided (Used) by Operating Activities:		
Amortization	294,577	290,112
Changes in Assets and Liabilities:		
Accounts Receivable	(5,799,369)	496,021
Due from Other Funds	(14,287)	5,704
Prepaid Expenses	-	207
Salaries Payable	8,673	3,868
Accrued Compensated Absences	2,781	11,130
Accounts Payable	632,748	3,486,243
Due to Fiduciary Funds	(310,889)	(1,060)
Due to Other State Agencies	(4,650)	1,497
Amounts Held in Custody for Others	16,663	56,532
Net Cash Provided (Used) by Operating Activities	<u>\$ (1,209,471)</u>	<u>\$ 233,506</u>

**North Dakota Public Employees Retirement System – Financial Section**  
**Statement of Fiduciary Net Position – Fiduciary Funds**  
**For the Fiscal Year Ended June 30, 2017**

	Public Employees Retirement System	Highway Patrolmen's Retirement System	Retiree Health Insurance Credit Fund	Defined Contribution Retirement Fund	Pretax Benefits Program	Deferred Compensation Plan	Retirement Plan for Employees of Job Services North Dakota
<b>ASSETS</b>							
Cash	\$ 9,176,368	\$ -	\$ 873,447	\$ 96,893	\$ 398,792	\$ 198,573	\$ 4,420
Receivables:							
Contribution Receivable	11,982,919	2,911	920,743	88,061	496,062	862,936	2,909
Interest Receivable	5,163,165	139,681	21	-	-	-	178
Due from Other Fiduciary Funds	190,306	-	76,323	25,004	-	28,308	-
Due from Uniform Group Insurance Plan	49,490	-	-	-	-	-	-
Due from Other State Agencies	2,320	-	318	-	-	-	-
Total Receivables	<u>17,388,200</u>	<u>142,592</u>	<u>997,405</u>	<u>113,065</u>	<u>496,062</u>	<u>891,244</u>	<u>3,087</u>
Investments:							
External Investment Pool	2,702,830,591	73,219,962	-	-	-	-	-
Equities	-	-	70,214,197	-	-	-	29,008,736
Fixed Income	-	-	45,921,116	205,457	-	1,666,744	68,323,905
Mutual Funds	-	-	-	11,775,773	-	95,946,792	-
Annuities	-	-	-	-	-	-	-
Invested Cash	-	-	15,613	60,017	-	529,302	-
Total Investments	<u>2,702,830,591</u>	<u>73,219,962</u>	<u>116,150,926</u>	<u>12,041,247</u>	<u>-</u>	<u>98,142,838</u>	<u>97,332,641</u>
Invested Securities Lending Collateral	15,515,708	420,268	-	-	-	-	-
Prepaid Expenses	-	-	(249)	-	-	-	-
Capital Assets (Net of Depreciation/Amortization)	<u>1,301,494</u>	<u>11,716</u>	<u>125,041</u>	<u>8,889</u>	<u>327,564</u>	<u>655,129</u>	<u>7,605</u>
Total Assets	<u>2,746,212,361</u>	<u>73,794,538</u>	<u>118,146,570</u>	<u>12,260,094</u>	<u>1,222,418</u>	<u>99,887,784</u>	<u>97,347,753</u>

**North Dakota Public Employees Retirement System – Financial Section**  
**Statement of Fiduciary Net Position – Fiduciary Funds**  
**For the Fiscal Year Ended June 30, 2017**

	Public Employees Retirement System	Highway Patrolmen's Retirement System	Retiree Health Insurance Credit Fund	Defined Contribution Retirement Fund	Pretax Benefits Program	Deferred Compensation Plan	Retirement Plan for Employees of Job Services North Dakota
<b>LIABILITIES</b>							
Salaries Payable	\$ 108,984	\$ -	\$ -	\$ -	\$ 22,122	\$ 40,417	\$ -
Accounts Payable	2,499,120	559	376,536	21,603	18,937	46,923	77,180
Due to Other Fiduciary Funds	101,328	37,395	176,048	10	-	-	5,162
Due to Uniform Group Insurance Plan	27,316	-	296	-	-	-	-
Due to Other State Agencies	9,527	-	-	628	1,668	3,138	-
Amounts Held in Custody for Others	-	-	-	-	-	45,933	-
Securities Lending Collateral	15,515,708	420,268	-	-	-	-	-
Accrued Compensated Absences	114,789	-	-	-	28,563	47,798	-
<b>Total Liabilities</b>	<b>18,376,772</b>	<b>458,222</b>	<b>552,880</b>	<b>22,241</b>	<b>71,290</b>	<b>184,209</b>	<b>82,342</b>
<b>NET POSITION</b>							
Restricted for Pensions	2,727,835,589	73,336,316	-	12,237,853	-	99,703,575	97,265,411
Restricted for Postemployment Healthcare Benefits	-	-	117,593,690	-	-	-	-
Restricted for Pretax Benefits	-	-	-	-	1,151,128	-	-
<b>Total Net Position Held in Trust</b>	<b>\$ 2,727,835,589</b>	<b>\$ 73,336,316</b>	<b>\$ 117,593,690</b>	<b>\$ 12,237,853</b>	<b>\$ 1,151,128</b>	<b>\$ 99,703,575</b>	<b>\$ 97,265,411</b>

**North Dakota Public Employees Retirement System – Financial Section**  
**Statement of Fiduciary Net Position – Fiduciary Funds**  
**For the Fiscal Year Ended June 30, 2016**

	Public Employees Retirement System	Highway Patrolmen's Retirement System	Retiree Health Insurance Credit Fund	Defined Contribution Retirement Fund	Pretax Benefits Program	Deferred Compensation Plan	Retirement Plan for Employees of Job Services North Dakota
<b>ASSETS</b>							
Cash	\$ 9,317,857	\$ -	\$ 478,157	\$ 145,918	\$ 712,448	\$ 200,201	\$ 424
Receivables:							
Contribution Receivable	12,753,464	560	962,713	81,589	503,767	663,800	3,296
Interest Receivable	5,765,507	158,350	97,862	-	-	-	163
Due from Other Fiduciary Funds	309,308	25,479	14,004	292	382	29,073	-
Due from Uniform Group Insurance Plan	-	-	359,259	-	1,120	-	-
Due from Other State Agencies	-	-	335	-	-	-	-
Total Receivables	18,828,279	184,389	1,434,173	81,881	505,269	692,873	3,459
Investments:							
External Investment Pool	2,387,841,823	65,626,348	-	-	-	-	-
Equities	-	-	59,903,215	-	-	-	39,637,397
Fixed Income	-	-	41,622,146	463,659	-	1,411,041	56,950,773
Mutual Funds	-	-	-	10,405,678	-	75,705,779	-
Annuities	-	-	-	-	-	116,397	-
Invested Cash	-	-	-	55,008	-	639,964	-
Total Investments	2,387,841,823	65,626,348	101,525,361	10,924,345	-	77,873,181	96,588,170
Invested Securities Lending Collateral	24,042,640	660,777	-	-	-	-	-
Prepaid Expenses	-	-	-	-	-	-	-
Capital Assets (Net of Depreciation/Amortization)	1,691,598	15,163	162,495	11,562	425,757	851,514	9,893
Total assets	2,441,722,197	66,486,677	103,600,186	11,163,706	1,643,474	79,617,769	96,601,946

**North Dakota Public Employees Retirement System – Financial Section**  
**Statement of Fiduciary Net Position – Fiduciary Funds**  
**For the Fiscal Year Ended June 30, 2016**

	Public Employees Retirement System	Highway Patrolmen's Retirement System	Retiree Health Insurance Credit Fund	Defined Contribution Retirement Fund	Pretax Benefits Program	Deferred Compensation Plan	Retirement Plan for Employees of Job Services North Dakota
<b>LIABILITIES</b>							
Salaries Payable	\$ 103,819	\$ -	\$ -	\$ -	\$ 21,802	\$ 44,164	\$ -
Accounts Payable	2,520,453	559	367,190	8	20,147	25,285	65,187
Due to Other Fiduciary Funds	25,861	14,004	311,921	10,655	-	13,292	2,805
Due to Uniform Group Insurance Plan	13,325	-	-	-	-	-	-
Due to Other State Agencies	11,713	-	-	333	3,807	5,539	-
Amounts Held in Custody for Others	-	-	-	-	-	19,176	-
Securities Lending Collateral	24,042,640	660,777	-	-	-	-	-
Accrued Compensated Absences	108,729	-	-	-	26,443	42,110	-
<b>Total Liabilities</b>	<b>26,826,540</b>	<b>675,340</b>	<b>679,111</b>	<b>10,996</b>	<b>72,199</b>	<b>149,566</b>	<b>67,992</b>
<b>NET POSITION</b>							
Restricted for pensions	2,414,895,657	65,811,337	-	11,152,710	-	79,468,203	96,533,954
Restricted for Postemployment Healthcare Benefits	-	-	102,921,075	-	-	-	-
Restricted for Pretax Benefits	-	-	-	-	1,571,275	-	-
<b>Total Net Position Held in Trust</b>	<b>\$ 2,414,895,657</b>	<b>\$ 65,811,337</b>	<b>\$ 102,921,075</b>	<b>\$ 11,152,710</b>	<b>\$ 1,571,275</b>	<b>\$ 79,468,203</b>	<b>\$ 96,533,954</b>

**North Dakota Public Employees Retirement System – Financial Section**  
**Statement of Changes in Fiduciary Net Position – Fiduciary Funds**  
**For the Fiscal Year Ended June 30, 2017**

	Public Employees Retirement System	Highway Patrolmen's Retirement System	Retiree Health Insurance Credit Fund	Defined Contribution Retirement Fund	Pretax Benefits Program	Deferred Compensation Plan	Retirement Plan for Employees of Job Services North Dakota
<b>ADDITIONS</b>							
Contributions:							
From Employer	\$ 78,933,571	\$ 2,155,944	\$ 12,575,627	\$ 446,771	\$ -	\$ -	\$ -
From Employee	76,007,456	1,455,540	16,173	433,298	5,591,603	10,300,452	39,417
Transfer from General Fund	-	-	-	-	-	-	-
Transfers from Other Plans	-	-	-	102,109	-	662,500	-
From External Plans	-	-	-	1	-	1,733,287	-
Total Contributions	<u>154,941,027</u>	<u>3,611,484</u>	<u>12,591,800</u>	<u>982,179</u>	<u>5,591,603</u>	<u>12,696,239</u>	<u>39,417</u>
Investment Income:							
Net Change in Fair Value of Investments	259,040,633	7,062,272	10,061,109	(615,855)	-	11,388,136	3,337,293
Interest and Dividends	59,994,114	1,635,278	2,348,733	2,101,532	447	471	2,187,163
Less Investment Expense	(7,492,083)	(203,156)	(335,760)	(6,822)	-	-	(285,579)
Net Investment Income	<u>311,542,664</u>	<u>8,494,394</u>	<u>12,074,082</u>	<u>1,478,855</u>	<u>447</u>	<u>11,388,607</u>	<u>5,238,877</u>
Securities Lending Activity							
Net Securities Lending Income	218,199	5,958	-	-	-	-	-
Repurchase Service Credit	11,805,070	249,436	464,323	-	-	-	-
FICA Tax Savings	-	-	-	-	749,413	-	-
Transfer from Proprietary Fund	-	-	-	-	-	137,500	-
Miscellaneous Income	32,183	221	-	6,822	-	2,500	-
Total Additions	<u>478,539,143</u>	<u>12,361,493</u>	<u>25,130,205</u>	<u>2,467,856</u>	<u>6,341,463</u>	<u>24,224,846</u>	<u>5,278,294</u>
<b>DEDUCTIONS</b>							
Benefits Paid to Participants	153,811,029	4,768,596	-	1,348,222	5,624,239	2,972,177	4,534,153
Refunds	8,941,330	37,723	1,689	-	-	-	-
Prefunded Credit Applied	-	-	10,012,681	-	-	-	-
Health Premium Paid	-	-	-	-	-	-	-
Transfers to Other Plans	239,609	-	-	-	525,000	-	-
	<u>162,991,968</u>	<u>4,806,319</u>	<u>10,014,370</u>	<u>1,348,222</u>	<u>6,149,239</u>	<u>2,972,177</u>	<u>4,534,153</u>
Administrative Expenses	2,607,243	30,195	443,220	34,491	612,371	1,017,297	12,684
Total Deductions	<u>165,599,211</u>	<u>4,836,514</u>	<u>10,457,590</u>	<u>1,382,713</u>	<u>6,761,610</u>	<u>3,989,474</u>	<u>4,546,837</u>
<b>CHANGE IN NET POSITION</b>	<u>312,939,932</u>	<u>7,524,979</u>	<u>14,672,615</u>	<u>1,085,143</u>	<u>(420,147)</u>	<u>20,235,372</u>	<u>731,457</u>
Net Position - Beginning of Year	2,414,895,657	65,811,337	102,921,075	11,152,710	1,571,275	79,468,203	96,533,954
<b>NET POSITION - END OF YEAR</b>	<u>\$ 2,727,835,589</u>	<u>\$ 73,336,316</u>	<u>\$ 117,593,690</u>	<u>\$ 12,237,853</u>	<u>\$ 1,151,128</u>	<u>\$ 99,703,575</u>	<u>\$ 97,265,411</u>



**North Dakota Public Employees Retirement System – Financial Section**  
**Statement of Changes in Fiduciary Net Position – Fiduciary Funds**  
**For the Fiscal Year Ended June 30, 2016**

	Public Employees Retirement System	Highway Patrolmen's Retirement System	Retiree Health Insurance Credit Fund	Defined Contribution Retirement Fund	Pretax Benefits Program	Deferred Compensation Plan	Retirement Plan for Employees of Job Services North Dakota
<b>ADDITIONS</b>							
Contributions:							
From Employer	\$ 77,080,576	\$ 2,127,355	\$ 12,349,883	\$ 922,371	\$ -	\$ -	\$ -
From Employee	74,218,276	1,436,236	16,655	867,076	5,670,342	8,893,268	44,178
Transfer from General Fund	1,890	-	-	-	1,080	1,080	-
Transfers from Other Plans	23,573,047	-	-	143,649	-	580,000	-
From External Plans	-	-	-	57,208	-	1,123,518	-
Total Contributions	<u>174,873,789</u>	<u>3,563,591</u>	<u>12,366,538</u>	<u>1,990,304</u>	<u>5,671,422</u>	<u>10,597,866</u>	<u>44,178</u>
Investment income:							
Net Change in Fair Value of Investments	(38,325,802)	(1,073,991)	(1,185,174)	(3,635,672)	-	(4,732,529)	2,352,098
Interest and Dividends	56,512,739	1,583,045	2,271,699	1,648,218	575	4,348,980	2,650,945
Less Investment Expense	(7,132,911)	(199,955)	(292,820)	(11,925)	-	-	(166,226)
Net Investment Income	<u>11,054,026</u>	<u>309,099</u>	<u>793,705</u>	<u>(1,999,379)</u>	<u>575</u>	<u>(383,549)</u>	<u>4,836,817</u>
Securities Lending Activity							
Net Securities Lending Income	279,098	7,859	-	-	-	-	3,516
Repurchase Service Credit	9,179,163	-	383,089	-	-	-	-
FICA Tax Savings	-	-	-	-	681,806	-	-
Transfer from Proprietary Fund	-	-	-	-	-	255,000	-
Miscellaneous Income	712	5	-	12,075	-	-	-
Total Additions	<u>195,386,788</u>	<u>3,880,554</u>	<u>13,543,332</u>	<u>3,000</u>	<u>6,353,803</u>	<u>10,469,317</u>	<u>4,884,511</u>
<b>DEDUCTIONS</b>							
Benefits Paid to Participants	141,263,796	4,658,232	-	1,396,663	5,621,287	4,714,348	4,601,196
Refunds	8,001,969	55,263	3,135	-	-	-	-
Prefunded Credit Applied	-	-	9,329,881	-	-	-	-
Health Premium Paid	-	-	-	-	-	-	-
Transfers to Other Plans	398,649	-	-	23,573,047	325,000	-	-
	<u>149,664,414</u>	<u>4,713,495</u>	<u>9,333,016</u>	<u>24,969,710</u>	<u>5,946,287</u>	<u>4,714,348</u>	<u>4,601,196</u>
Administrative Expenses	2,537,799	31,450	431,291	13,593	615,089	983,021	32,253
Total Deductions	<u>152,201,940</u>	<u>4,744,945</u>	<u>9,764,307</u>	<u>24,983,303</u>	<u>6,561,376</u>	<u>5,697,369</u>	<u>4,633,449</u>
<b>CHANGE IN NET POSITION</b>	<b>43,184,848</b>	<b>(864,391)</b>	<b>3,779,025</b>	<b>(24,980,303)</b>	<b>(207,573)</b>	<b>4,771,948</b>	<b>251,062</b>
Net Position - Beginning of Year	2,371,710,809	66,675,728	99,142,050	36,133,013	1,778,848	74,696,255	96,282,892
<b>NET POSITION - END OF YEAR</b>	<b><u>\$ 2,414,895,657</u></b>	<b><u>\$ 65,811,337</u></b>	<b><u>\$ 102,921,075</u></b>	<b><u>\$ 11,152,710</u></b>	<b><u>\$ 1,571,275</u></b>	<b><u>\$ 79,468,203</u></b>	<b><u>\$ 96,533,954</u></b>

**NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Reporting Entity**

The Public Employees Retirement System (System) is an agency of the State of North Dakota, operating through the legislative authority of North Dakota Century Code 54-52-03. As a state agency, the System is considered to be a department of the State of North Dakota and is included in the State's Comprehensive Annual Financial Report as a pension trust fund, except for the uniform group insurance program, which is reported as a proprietary fund.

The System is governed by a nine-member board, five of the members are appointed and the remaining four are elected by the participants of the retirement plans.

The System administers three defined benefit pension plans and one defined contribution retirement plan. The System also manages and administers the retiree health insurance credit program, the uniform group insurance program, the deferred compensation program and the pretax benefits program.

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

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

**Fund Financial Statements**

The System's only non-fiduciary activity is the administration and management of the uniform group insurance program. This program is an enterprise fund that relies to a significant extent on fees and charges for support and is shown in the separate proprietary fund financial statements.

The Statement of Net Position presents the reporting entity's non-fiduciary assets and liabilities with the difference reported as net position. Net position is reported in three categories:

- Net investment in capital assets consists of capital assets, net of accumulated depreciation and amortization and reduced by outstanding balances for debt that are attributed to the acquisition, construction or improvement of those assets.
- Restricted for benefits result when constraints on net position use are either externally imposed by creditors, grantors, contributors, and the like, or imposed by law through constitutional provisions or enabling legislation.
- Unrestricted net position consists of net position that does not meet the definition of the two preceding categories.

All other activities of the system are pension and other employee benefit trust funds and are shown in the separate fiduciary fund financial statements.

**NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**Measurement Focus, Basis of Accounting and Financial Statement Presentation**

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

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

The proprietary fund is used to account for the operations of the Uniform Group Insurance Program. The System has been given the responsibility to manage this public entity risk pool. The Uniform Group Insurance Program is a risk sharing pool that provides the employees of the State of North Dakota, or any of its political subdivisions, institutions, departments, or agencies, economies of scale in purchasing health, life, dental, vision, and long-term care insurance.

The fiduciary fund consists of the pension and other employee benefit trust funds that are used to account for assets held by the department in a trust capacity. These include:

**Public Employees Retirement System** – a cost-sharing multiple-employer defined benefit retirement plan.

**Highway Patrolmen’s Retirement System** – a single-employer defined benefit retirement plan.

**Defined Contribution Retirement Plan** – an optional defined contribution retirement plan available to state employees.

**Retiree Health Insurance Credit Fund** – an advance funded plan to offset the members’ cost of health insurance during their retirement

**Pretax Benefits Program** – allows eligible employees to elect to reduce their salaries to pay for eligible dependent care and medical expenses.

**Deferred Compensation Plan** – voluntary, supplemental retirement plan provided in accordance with Section 457 of the Internal Revenue Code.

**Retirement Plan for Employees of Job Service North Dakota** – a single-employer defined benefit retirement plan.

The System follows the pronouncements of the GASB, which is the nationally accepted standard setting body for establishing accounting principles generally accepted in the United States of America for governmental entities.

The proprietary fund is accounted for on the accrual basis of accounting. Revenues are recognized when earned, and expenses are recognized when the liability is incurred, regardless of the timing of related cash flows. The proprietary fund distinguishes operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services in connection with a proprietary fund’s principal ongoing operations. The principal operating revenues of the proprietary fund are premiums and administrative fees charged to the participants in the Uniform Group Insurance Program and underwriting gains and losses. Operating expenses include premiums, salaries and wages, and administrative expenses. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

**NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

The fiduciary funds are accounted for on the accrual basis of accounting. Member contributions are recognized in the period in which the contributions are due. Employer contributions to each plan are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of each system.

**Budgetary Process**

The System operates through a biennial appropriation provided by the State Legislature. The System prepares a biennial budget on the modified accrual basis, which is included in the Governor's budget presented to the General Assembly at the beginning of each legislative session. The General Assembly enacts the budgets of the various state departments through passage of specific appropriation bills. Before signing the appropriation bills, the Governor has line item veto powers over legislation, subject to legislative override. Once passed and signed, the appropriation becomes the system's financial plan for the next two years. Changes to the appropriation are subject to approval by the Emergency Commission.

The Statement of Appropriations has been prepared using the accrual basis of accounting. Unexpended appropriations lapse at the end of each biennium, except certain capital expenditures covered under the North Dakota Century Code (NDCC), Section 54-44.1-11. Expenditures not subject to appropriation of a specific amount include premium expenses, professional fees, depreciation and amortization expense, benefits and refunds paid to participants, prefunded credits applied, and employee reimbursements in the Pretax Benefits Program.

There were no supplemental appropriations during the fiscal years ending June 30, 2017 and 2016. The legal level of budgetary control is at the appropriation and expenditure line item level, with administrative controls established at lower levels of detail in certain instances.

**Investment Valuation and Income Recognition**

The fair value of real estate investments, including timberland, is based on appraisals plus fiscal year-to-date capital transactions. Publicly traded alternative investments are valued based on quoted market prices. When not readily available, alternative investment securities are valued using current estimates of fair value from the investment manager.

Such valuations consider variables such as financial performance of the issuer, comparison of comparable companies' earnings multiples, cash flow analysis, recent sales prices of investments, withdrawal restrictions, and other pertinent information. Because of the inherent uncertainty of the valuation for these other alternative investments, the estimated fair value may differ from the values that would have been used had a ready market existed. Investments in the external investment pool are stated at fair value, which is the same as the value of the pool shares.

The net change in fair value of investments consists of the realized gains or losses and the unrealized increase or decrease in fair value of investments during the year. Realized gains and losses on sales of investments are computed based on the difference between the sales price and the original cost of the investment sold. Realized gains and losses on investments that had been held in more than one fiscal year and sold in the current fiscal year were included as a change in the fair value of investments reported in the prior year(s) and the current year. Unrealized gains and losses are computed based on changes in the fair value of investments between years. Security transactions are accounted for on a trade date basis. Interest income is recognized when earned. Dividend income is recorded on the ex-dividend date.

**NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**Derivative Securities**

Derivatives are financial arrangements between two parties whose payments are based on, or “derived” from, the performance of some agreed upon benchmark. The System’s investment policy allows the use of derivative securities to hedge or replicate underlying exposures but not for speculation. All derivatives are considered investment derivative instruments. The fair value of all derivative securities is reported in the statements of fiduciary net position.

**Accounts Receivable and Credit Policy**

Accounts receivable primarily include amounts due for contributions, insurance premiums, employee pretax benefit deductions, and accrued interest on investments. Management reviews all receivables at year-end and assesses collectability. All remaining receivables are considered collectible.

**Capital Assets and Depreciation**

Capital assets, which include equipment and intangibles (software) are presented in the accompanying financial statements at cost or estimated historical cost. Donated capital assets are stated at fair value at the time of donation. Capital assets acquired via lease agreements are capitalized at the inception of the agreement. Additions, improvements and other capital outlays that significantly extend the useful life of an asset are capitalized. Other costs incurred for repairs and maintenance are expensed as incurred. For the years ending June 30, 2017 and 2016, the System capitalized equipment and software in accordance with Section 54-27-21 of the North Dakota Century Code.

The capital assets are depreciated on a straight-line basis over estimated useful lives ranging from five to 10 years.

**Accrued Compensated Absences**

Annual leave is a part of permanent employees’ compensation as set forth in Section 54-06-14 of the North Dakota Century Code. Employees are entitled to earn annual leave based on tenure of employment, within a range of a minimum of one working day per month of employment, to a maximum of two working days per month of employment, to be fixed by rules and regulations adopted by the employing unit. No more than 240 hours of annual leave may be carried forward beyond April 30th of each year. Employees are paid for unused annual leave upon termination or retirement. Permanent employees accrue sick leave from the first day of employment at the rate of eight hours per month with unlimited accumulation. Employees with at least 10 years of state employment are paid one-tenth of their accumulated sick leave under Section 54-06-14 of the North Dakota Century Code when the employee leaves the employ of the state.

The System’s liability for accumulated unpaid leave is reported in the applicable funds.

**Amounts Held in Custody for Others**

Amounts held in custody for others includes monies collected from participating employers for deferred compensation contributions that had not been forwarded to the investment provider company as of June 30.

**Unearned Premiums**

Unearned premiums include monies collected by the System from individuals or participating employers for insurance premiums before the premiums are due.

**NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**Transfers to/from Other Plans**

Transfers to/from other plans consist of monies transferred from the Public Employees Retirement System Defined Benefit Plan to the Defined Contribution Retirement Plan pursuant to Section 54-52.6 Subsection 3 of the North Dakota Century Code. Each eligible employee who elects to terminate membership in the Defined Benefit Plan has a lump sum amount transferred to the participating member's account under the Defined Contribution Retirement Plan. For new employees electing to transfer to the Defined Contribution Retirement Plan, the lump sum transferred is the actual employee and employer contributions plus interest. In 2017 and 2016, transfers to other plans also includes operating transfers from the pretax benefits program, retirement plan, and insurance plan to the deferred compensation plan to cover general administrative expenses. In 2016 it also includes a general fund transfer in to cover part of the cost of a state sponsored internship program.

Senate Bill 2015 provided participating members of the Defined Contribution Retirement Plan as of July 1, 2015 a one-time three month special election opportunity to transfer their account balances back into the Public Employees Retirement System's Defined Benefit Plan. The election period was open from November 1, 2015 and lasted until January 31, 2016. Of the 223 eligible Defined Contribution Retirement Plan participants, 170 members made the election to move back into the Public Employees Retirement System Defined Benefit Plan.

**Restricted Net Position**

Net position restricted for benefits consists of funds on deposit with Blue Cross Blue Shield and Sanford Health Plan to pay health care benefits in the event total claims incurred during the biennium exceed total premiums. See Note 15 for additional discussion on the status of open contracts.

**Use of Estimates**

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

Actual results could differ from those estimates. The System utilizes various investment instruments. Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such change could materially affect the amounts reported in the statement of net position.

**Adoption of New Accounting Standard**

GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans other than Pension Plans, was issued and is effective for periods beginning after June 15, 2016. This statement establishes standard of financial reporting for separately issued financial reports and specifies the required approach to measuring the OPEB liability of employer and non-employer contributing entities for benefits provided through the OPEB plan (net OPEB liability). The System implemented GASB 74 for the fiscal year ended June 30, 2017.

**North Dakota Public Employees Retirement System – Financial Section**  
**Notes to the Financial Statements**  
**June 30, 2017 and 2016**

**NOTE 2 DEPOSITS AND INVESTMENTS**

**Fair Value Measurement**

The System's investments in the Defined Contribution Retirement Plan and Deferred Compensation Plan are measured and reported at fair value, and are classified according to the following hierarchy:

Level 1 – Investments that represent unadjusted quoted prices for identical instruments in active markets

Level 2 – Investments are based on quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.

Level 3 – Investments are based on valuation techniques in which significant inputs are unobservable.

**Defined Contribution Retirement Fund**

		June 30, 2017			
		June 30, 2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments at Fair Value</b>					
Mutual Funds	\$ 11,775,773	\$ 11,775,773	\$	-	\$ -
<b>Investments at Contract Value</b>					
Fixed Income	205,457				
<b>Investments at Amortized Cost</b>					
Invested Cash	60,017				
Total Investments	<u>\$ 12,041,247</u>				
		June 30, 2016			
		June 30, 2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments at Fair Value</b>					
Mutual Funds	\$ 10,405,678	\$ 10,405,678	\$	-	\$ -
<b>Investments at Contract Value</b>					
Fixed Income	463,659				
<b>Investments at Amortized Cost</b>					
Invested Cash	55,008				
Total Investments	<u>\$ 10,924,345</u>				

**North Dakota Public Employees Retirement System – Financial Section**  
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**NOTE 2 DEPOSITS AND INVESTMENTS (CONTINUED)**

**Deferred Compensation Plan**

	June 30, 2017			
	June 30, 2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments at Fair Value</b>				
Mutual Funds	\$ 95,946,792	\$ 95,946,792	\$ -	\$ -
<b>Investments at Contract Value</b>				
Fixed Income	1,666,744			
<b>Investments at Cash Surrender Value</b>				
Annuities	-			
<b>Investments at Amortized Cost</b>				
Invested Cash	529,302			
Total Investments	<u>\$ 98,142,838</u>			

	June 30, 2016			
	June 30, 2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments at Fair Value</b>				
Mutual Funds	\$ 75,705,779	\$ 75,705,779	\$ -	\$ -
<b>Investments at Contract Value</b>				
Fixed Income	1,411,041			
<b>Investments at Cash Surrender Value</b>				
Annuities	116,397			
<b>Investments at Amortized Cost</b>				
Invested Cash	639,964			
Total Investments	<u>\$ 77,873,181</u>			

**Investments Measured at the Net Asset Value – Proprietary Fund**

Commingled Domestic Fixed Income	<u>June 30, 2017</u> \$ 35,938,094
Commingled Domestic Fixed Income	<u>June 30, 2016</u> \$ 33,598,449



**North Dakota Public Employees Retirement System – Financial Section**  
**Notes to the Financial Statements**  
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**NOTE 2 DEPOSITS AND INVESTMENTS (CONTINUED)**

**Investments Measured at the Net Asset Value – Fiduciary Funds**

	<b>June 30, 2017</b>			
	Public Employees Retirement System	Highway Patrolmen's Retirement System	Retiree Health Insurance Credit Fund	Retirement Plan for Employees of Job Services North Dakota
Commingled External Investment Pools	\$ 2,702,830,591	\$ 73,219,962	\$ -	\$ -
Commingled Equities	-	-	70,214,197	29,008,736
Commingled Fixed Income	-	-	45,921,116	68,323,905
Total Investments Measured at the Net Asset Value	<u>\$ 2,702,830,591</u>	<u>\$ 73,219,962</u>	<u>\$ 116,135,313</u>	<u>\$ 97,332,641</u>
	<b>June 30, 2016</b>			
	Public Employees Retirement System	Highway Patrolmen's Retirement System	Retiree Health Insurance Credit Fund	Retirement Plan for Employees of Job Services North Dakota
Commingled External Investment Pools	\$ 2,387,841,823	\$ 65,626,348	\$ -	\$ -
Commingled Equities	-	-	59,903,215	39,637,397
Commingled Fixed Income	-	-	41,622,146	56,950,773
Total Investments Measured at the Net Asset Value	<u>\$ 2,387,841,823</u>	<u>\$ 65,626,348</u>	<u>\$ 101,525,361</u>	<u>\$ 96,588,170</u>

**Net Asset Value Measurement**

The System's investments in the Uniform Group Insurance Program are held in an external investment pool with the North Dakota Retirement and Investment Office and are valued at Net Asset Value (NAV). The System's investments in commingled cash are valued at amortized cost. There are no unfunded commitments and the plan may redeem investments daily with a one day redemption notice period.

The System's investments in the Public Employees Retirement System and Highway Patrol Retirement System are held in an external investment pool with the North Dakota Retirement and Investment Office and are valued at Net Asset Value (NAV). There are no unfunded commitments and the plan may redeem investments daily with a one day redemption notice period.

The System's investments in the Retiree Health Insurance Credit Fund are directly managed and held in an individual investment account with the North Dakota Retirement and Investment Office and are valued at NAV as of June 30, 2017 and 2016. There are no unfunded commitments and the plan may redeem investments daily with a one day redemption notice period. For the year ended June 30, 2017 and 2016, the Retirement Plan for Employees of Job Service of North Dakota's investments were held in an external investment pool with the North Dakota Retirement and Investment Office and are valued at Net Asset Value (NAV). There were no unfunded commitments and the plan may redeem investments daily with a one day redemption notice period.

**North Dakota Public Employees Retirement System – Financial Section**  
**Notes to the Financial Statements**  
**June 30, 2017 and 2016**

**NOTE 2 DEPOSITS AND INVESTMENTS (CONTINUED)**

**Deposits**

According to North Dakota Century Code 21-04-01, the System is required to bank at the state-owned and operated Bank of North Dakota. The System receives interest for funds on deposit in all accounts.

Cash and cash equivalents for reporting purposes, includes cash and short-term, highly liquid investments that are readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. This includes investments with original maturity of three months or less.

	<u>2017</u>	<u>2016</u>
Cash Deposits at the Bank of North Dakota Recorded as Cash and Cash Equivalents	\$ 11,784,029	\$ 13,980,947
Cash Deposits at State Treasury Recorded as Cash and Cash Equivalents	1,803,651	1,797,240
Cash Held by the North Dakota Retirement and Investment Office Recorded as Cash and Cash Equivalents	1,772,954	3,098,967
Guaranteed Investment Contract with Blue Cross Blue Shield/Sanford Health Plan Recorded as Cash and Cash Equivalents	6,235,127	6,247,135
Cash Held by ADP Benefit Services Recorded as Cash and Cash Equivalents	-	165,371
	<u>                    </u>	<u>                    </u>
Total Cash and Cash Equivalents	<u>\$ 21,595,761</u>	<u>\$ 25,289,660</u>

**Custodial Risk**

For deposits, custodial risk is the risk that in the event of the failure of a depository financial institution, the System will not be able to recover the deposits. The System does not have a formal policy that limits custodial risk for deposits. Deposits at the Bank of North Dakota and the State Treasury are uncollateralized but are guaranteed by the State of North Dakota (NDCC Section 6-09-10).

At June 30, 2017 and 2016, the carrying amount of the System's cash deposits were \$57,533,856 and \$58,888,109, and the bank balances were \$57,489,648 and \$58,782,219. All of the System's deposits are uncollateralized and uninsured at June 30, 2017 and 2016.

**Investments**

Total investments of the fiduciary funds of the System as of June 30, 2017 and 2016, consisted of the following:

	<u>2017</u>	<u>2016</u>
Equity Securities	\$ 1,644,548,349	\$ 1,413,420,437
Fixed Income Securities	747,408,730	661,343,983
Real Estate	504,434,723	459,762,805
Alternative Investments	83,862,751	79,938,588
Mutual Funds	107,722,565	86,111,457
Annuities	-	116,397
Invested Cash	11,741,087	39,685,561
Invested Securities Lending Collateral	15,935,976	24,703,417
	<u>                    </u>	<u>                    </u>
	<u>\$ 3,115,654,181</u>	<u>\$ 2,765,082,645</u>

**North Dakota Public Employees Retirement System – Financial Section**  
**Notes to the Financial Statements**  
**June 30, 2017 and 2016**

**NOTE 2 DEPOSITS AND INVESTMENTS (CONTINUED)**

All investments of the fund, except for the Defined Contribution Retirement Plan and Deferred Compensation Plan, are to be made by the North Dakota State Investment Board (SIB). Chapter 21-10-07 of the North Dakota Century Code requires that all investments made by this state agency, be made using the prudent investor rule.

Investments of the Defined Contribution Retirement Plan and the Deferred Compensation Plan are participant directed and are held by TIAA.

The System’s Board is responsible for establishing the investment policy for the fund assets, which includes setting investment goals and specifying the percentage of assets to be invested in various types of investments. The investment goals are viewed over the long term. The Board recognizes the plans’ performance objectives, benefit projections, and capital market expectations when determining the asset allocation. The SIB is responsible for managing the System’s investments in accordance with the investment policy. The following was the System’s asset allocation policy for the Public Employees Retirement System, Highway Patrolmen’s Retirement System, Retirement Plan for Employees of Job Service of North Dakota, and Retiree Health Insurance Credit Fund as of June 30, 2017 and 2016:

Asset Class	Target Allocation		
	PERS & HPRS	JSND	RHIC
Domestic Equities	31.00%	18.00%	46.00%
International Equities	21.00%	12.00%	14.00%
Private Equity	5.00%	6.00%	0.00%
Domestic Fixed Income	17.00%	64.00%	40.00%
International Fixed Income	5.00%	0.00%	0.00%
Global Real Assets	20.00%	0.00%	0.00%
Cash and Equivalents	1.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%

Rate of return – The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for changing amounts actually invested. The annual money-weighted rate of return on pension plan investment, net of pension plan investment expense for the years ended June 30, 2017 and 2016 are:

	2017	2016
Public Employees Retirement System	13.01%	0.49%
Highway Patrolman's Retirement System	12.93%	0.48%
Job Service Plan	5.85%	5.14%
Retiree Health Insurance Credit Fund	11.75%	0.83%

Realized gains and losses — Realized gains and losses on sales of investments are components of net change in fair value of investments and are computed as described in Note 1.

**North Dakota Public Employees Retirement System – Financial Section**  
**Notes to the Financial Statements**  
**June 30, 2017 and 2016**

**NOTE 2 DEPOSITS AND INVESTMENTS (CONTINUED)**

For the years ended June 30, 2017 and 2016, the following are the net realized gains (losses):

	2017	2016
Public Employees Retirement System	\$ 83,608,473	\$ 66,822,688
Highway Patrolmen's Retirement System	2,279,433	1,872,550
Retiree Health Insurance Credit Plan	2,107,471	3,305,180
Defined Contribution Plan	56,506	(70,697)
Deferred Compensation Plan	3,884,612	77,215
Job Service Plan	3,087,896	506,503

Investment expense of the fund, except for the Defined Contribution Retirement Plan and the Deferred Compensation Plan, consists of those administrative and investment expenses directly related to the RIO investment operations. Investment expense of the Defined Contribution Retirement Plan and the Deferred Compensation Plan consist of administrative expenses directly related to each plan. All expenses are paid out of plan assets.

**Credit Risk**

All investments of the Public Employees Retirement System, Highway Patrolmen's Retirement System, and Uniform Group Insurance Program are invested in an external investment pool managed by SIB. The pool is not rated. The System does not have a formal credit risk policy that limits the credit risk of the investments.

All investments of the Retirement Plan for Employees of Job Service of North Dakota and Retiree Health Insurance Credit Fund are managed and invested by the SIB in institutional equity and fixed income mutual funds. The fixed income funds are rated AA. The System does not have a formal credit risk policy that limits the credit risk of the investments.

Investments of the Defined Contribution Retirement Plan and the Deferred Compensation Plan are invested in mutual funds directed by the participants. The mutual funds are not rated. The System does not have a formal credit risk policy that limits the credit risk of the investments.

**Interest Rate Risk**

Interest rate risk is the risk that changes in interest rates of debt securities will adversely affect the fair value of an investment. The System does not have a formal investment policy that limits investment maturities as a means of managing its exposure to potential fair value losses arising from future changes in interest rates. The SIB has chosen to use the Segmented Time Distribution disclosure method. Tables detailing the System's portion of the investment pool are reported on the next page. Readers may refer to the North Dakota Retirement and Investment Office financial statements regarding highly sensitive securities that are disclosed at the SIB level.

**North Dakota Public Employees Retirement System – Financial Section**  
**Notes to the Financial Statements**  
**June 30, 2017 and 2016**

**NOTE 2 DEPOSITS AND INVESTMENTS (CONTINUED)**

**PERS and HPRS Plan**

Type (in thousands)	2017				
	Fair Value	Less Than 1			Over 10
		Year	1-6 Years	6-10 Years	
Domestic Fixed Income Pool	\$ 377,435	\$ 2,792	\$ 81,247	\$ 66,437	\$ 226,960
Below Investment Grade FI Pool	93,740	2,384	41,699	31,692	17,964
International Fixed Income Pool	126,354	5,055	24,958	68,657	27,684
Large Cap Domestic Equity Pool	61,762	191	14,356	2,780	44,435
Small Cap Domestic Equity Pool	51,639	674	14,351	2,182	34,432
Total Debt Securities	<u>\$ 710,930</u>	<u>\$ 11,096</u>	<u>\$ 176,611</u>	<u>\$ 171,748</u>	<u>\$ 351,475</u>

Note: Table above represents fixed income investments, as well as debt securities in underlying equity funds

Type (in thousands)	2016				
	Fair Value	Less Than 1			Over 10
		Year	1-6 Years	6-10 Years	
Domestic Fixed Income Pool	\$ 320,933	\$ 1,433	\$ 147,569	\$ 21,302	\$ 150,629
Below Investment Grade FI Pool	86,771	332	30,453	37,838	18,148
International Fixed Income Pool	125,713	4,252	22,104	68,642	30,716
Large Cap Domestic Equity Pool	61,863	1,297	12,960	2,543	45,063
Small Cap Domestic Equity Pool	51,024	289	10,561	2,226	37,947
Total Debt Securities	<u>\$ 646,304</u>	<u>\$ 7,603</u>	<u>\$ 223,647</u>	<u>\$ 132,551</u>	<u>\$ 282,503</u>

Note: Table above represents fixed income investments, as well as debt securities in underlying equity funds

**Job Service Retirement Plan**

Type (in thousands)	2017				
	Fair Value	Less Than 1			Over 10
		Year	1-6 Years	6-10 Years	
Pooled Investments	\$ 67,661	\$ -	\$ 42,548	\$ 25,113	\$ -

Note: Table above represents fixed income investments, as well as debt securities in underlying equity funds

Type (in thousands)	2016				
	Fair Value	Less Than 1			Over 10
		Year	1-6 Years	6-10 Years	
Pooled Investments	56,559	14,758	41,801	-	-

Note: Table above represents fixed income investments, as well as debt securities in underlying equity funds

**North Dakota Public Employees Retirement System – Financial Section**  
**Notes to the Financial Statements**  
**June 30, 2017 and 2016**

**NOTE 2 DEPOSITS AND INVESTMENTS (CONTINUED)**

**Retiree Health Insurance Credit Fund**

Type (in thousands)	2017				
	Fair Value	Less Than 1 Year	1-6 Years	6-10 Years	Over 10 Years
Pooled Investments	\$ 45,921	\$ -	\$ 4,650	\$ 41,271	\$ -

*Note: Table above represents fixed income investments, as well as debt securities in underlying equity funds*

Type (in thousands)	2016				
	Fair Value	Less Than 1 Year	1-6 Years	6-10 Years	Over 10 Years
Pooled Investments	41,650	-	41,650	-	-

*Note: Table above represents fixed income investments, as well as debt securities in underlying equity funds*

**Securities Lending**

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

Non-cash collateral cannot be pledged or sold unless the borrower defaults. All securities loans can be terminated on demand by either the lender or the borrower, although the average term of SIB loans was approximately 69 days as of June 30, 2017. Cash collateral is invested in a short-term investment pool, which is valued based on amortized cost. There were no violations of legal or contractual provisions, no borrower or lending agent default losses known to the securities lending agent. There are no dividends or coupon payments owing on the securities lent. Securities lending earnings are credited to participating clients on approximately the 15th day of the following month.

Indemnification deals with the situation in which a client's securities are not returned due to the insolvency of a borrower and Northern Trust has failed to live up to its contractual responsibilities relating to the lending of those securities. Northern Trust's responsibilities include performing appropriate borrower and collateral investment credit analyses, demanding adequate types and levels of collateral, and complying with applicable Department of Labor and Federal Financial Institutions Examination Council regulations concerning securities lending. For securities loaned at fiscal year end, the SIB has no credit risk exposure to borrowers because the amounts the SIB owes the borrowers exceeds the amounts the borrowers owe the SIB.

**North Dakota Public Employees Retirement System – Financial Section**  
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**NOTE 3 DUE TO/FROM AND TRANSFERS IN/OUT FIDUCIARY AND PROPRIETARY FUNDS AND STATE AGENCY TRANSACTIONS**

The June 30, 2017 due from/to fiduciary and proprietary funds are summarized as follows:

Fund	Due From Fiduciary and Proprietary Funds	Due to Fiduciary and Proprietary Funds
<b>Fiduciary</b>		
Public Employees Retirement System	\$ 239,796	\$ 128,644
Highway Patrolmen's Retirement System	-	37,395
Retiree Health Insurance Credit Fund	76,323	176,344
Retirement Plan for Employees of Job Service North Dakota	-	5,162
Pretax Benefits Program	-	-
Deferred Compensation Plan	28,308	-
Defined Contribution Plan	25,004	10
<b>Proprietary</b>		
Uniform Group Insurance Program	27,612	49,490
	<u>\$ 397,043</u>	<u>\$ 397,045</u>

The June 30, 2016 due from/to fiduciary and proprietary funds are summarized as follows:

Fund	Due From Fiduciary and Proprietary Funds	Due to Fiduciary and Proprietary Funds
<b>Fiduciary</b>		
Public Employees Retirement System	\$ 309,308	\$ 39,186
Highway Patrolmen's Retirement System	25,479	14,004
Retiree Health Insurance Credit Fund	373,263	311,921
Retirement Plan for Employees of Job Service North Dakota	-	2,805
Pretax Benefits Program	1,502	-
Deferred Compensation Plan	29,073	13,292
Defined Contribution Plan	292	10,655
<b>Proprietary</b>		
Uniform Group Insurance Program	13,325	360,379
	<u>\$ 752,242</u>	<u>\$ 752,242</u>

These balances are a result of a time lag between the dates the expenditures are incurred, the allocations determined, and when the transactions are entered into the accounting system.

**North Dakota Public Employees Retirement System – Financial Section**  
**Notes to the Financial Statements**  
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**NOTE 3 DUE TO/FROM AND TRANSFERS IN/OUT FIDUCIARY AND PROPRIETARY FUNDS  
AND STATE AGENCY TRANSACTIONS (CONTINUED)**

June 30, 2017 due from/to state agencies are summarized as follows:

Fund	Due From State Agencies	Due to State Agencies
<b>Fiduciary</b>		
Public Employees Retirement System		
ITD	\$ -	\$ 6,246
Attorney General	-	1,261
Central Duplicating	-	1,127
Department of Transportation		76
RIO		508
Central Supply	-	309
Various Seminar Billings	2,320	-
Total	<u>\$ 2,320</u>	<u>\$ 9,527</u>
Retiree Health Insurance Credit Fund		
Job Service	\$ 318	\$ -
Total	<u>\$ 318</u>	<u>\$ -</u>
Defined Contribution Plan		
ITD	\$ -	\$ 98
Attorney General	-	530
Total	<u>\$ -</u>	<u>\$ 628</u>
Pretax Benefits Program		
ITD	\$ -	\$ 1,201
Attorney General	-	122
Central Duplicating	-	268
Central Supply	-	77
Total	<u>\$ -</u>	<u>\$ 1,668</u>
Deferred Compensation Plan		
ITD	\$ -	\$ 2,400
Attorney General	-	239
Department of Transportation		76
Central Duplicating	-	268
Central Supply	-	155
Total	<u>\$ -</u>	<u>\$ 3,138</u>
<b>Proprietary</b>		
Uniform Group Insurance Program		
ITD	\$ -	\$ 4,233
Central Supply	-	232
Central Duplicating	-	1,072
Attorney General	-	1,131
Total	<u>\$ -</u>	<u>\$ 6,668</u>

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



**North Dakota Public Employees Retirement System – Financial Section**  
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**NOTE 3 DUE TO/FROM AND TRANSFERS IN/OUT FIDUCIARY AND PROPRIETARY FUNDS AND STATE AGENCY TRANSACTIONS (CONTINUED)**

The June 30, 2016 due from/to state agencies are summarized as follows:

Fund	Due From State Agencies	Due to State Agencies
<b>Fiduciary</b>		
Public Employees Retirement System		
ITD	\$ -	\$ 8,776
Attorney General	-	2,831
Central Duplicating	-	70
Central Supply	-	36
Total	<u>\$ -</u>	<u>\$ 11,713</u>
Retiree Health Insurance Credit Fund		
Job Service	\$ 335	\$ -
Total	<u>\$ 335</u>	<u>\$ -</u>
Defined Contribution Plan		
ITD	\$ -	\$ 75
Attorney General	-	258
Total	<u>\$ -</u>	<u>\$ 333</u>
Pretax Benefits Program		
ITD	\$ -	\$ 2,426
Attorney General	-	531
Central Duplicating	-	841
Central Supply	-	9
Total	<u>\$ -</u>	<u>\$ 3,807</u>
Deferred Compensation Plan		
ITD	\$ -	\$ 3,646
Attorney General	-	1,113
Central Duplicating	-	762
Central Supply	-	18
Total	<u>\$ -</u>	<u>\$ 5,539</u>
<b>Proprietary</b>		
Uniform Group Insurance Program		
ITD	\$ -	\$ 6,179
Central Supply	-	27
Central Duplicating	-	45
Attorney General	-	5,067
Total	<u>\$ -</u>	<u>\$ 11,318</u>

**North Dakota Public Employees Retirement System – Financial Section**  
**Notes to the Financial Statements**  
**June 30, 2017 and 2016**

**NOTE 3 DUE TO/FROM AND TRANSFERS IN/OUT FIDUCIARY AND PROPRIETARY FUNDS  
AND STATE AGENCY TRANSACTIONS (CONTINUED)**

The June 30, 2017 operating transfers in/out are summarized as follows:

Fund Type/Fund	Transfers In	Transfers Out
Fiduciary Funds		
Defined Contribution Plan	\$ 102,109	\$ -
Deferred Compensation Plan	800,000	
Pretax Benefit Program		525,000
Public Employee Retirement System		239,609
Proprietary Funds		
Uniform Group Insurance Program		137,500

The June 30, 2016 operating transfers in/out are summarized as follows:

Fund Type/Fund	Transfers In	Transfers Out
Fiduciary Funds		
Defined Contribution Plan	\$ 143,649	\$ 23,573,047
Deferred Compensation Plan	836,080	-
Pretax Benefit Program	1,080	325,000
Public Employee Retirement System	23,574,937	398,649
Proprietary Funds		
Uniform Group Insurance Program	1,350	255,000

The transfer to the Defined Contribution Retirement Fund is for those employees electing to transfer from the PERS plan. The transfer from the Defined Contribution Plan to the Public Employee Retirement System represents those members making the one time election under Senate Bill 2015 to move from the Defined Contribution Plan back to the Public Employee Retirement System Defined Benefit Plan. The transfers to the Deferred Compensation Plan are to cover administrative expenses pursuant to NDCC 54-52-04 subsection 11.

**North Dakota Public Employees Retirement System – Financial Section**  
**Notes to the Financial Statements**  
**June 30, 2017 and 2016**

**NOTE 4 CAPITAL ASSETS**

A statement of changes in equipment and accumulated depreciation for the System for the year ended June 30, 2017 and 2016 is as follows:

	Balance 7/1/2016	Additions	Deletions	Balance 6/30/2017
Proprietary Funds:				
Capital Assets Being Depreciated:				
Software	\$ 2,921,416			\$ 2,921,416
Less Accumulated Amortization for:				
Software	(1,644,146)	(294,577)		(1,938,723)
Total Capital Assets Being Depreciated, Net	<u>1,277,270</u>	<u>(294,577)</u>	-	<u>982,693</u>
Proprietary Funds Capital Assets, Net	<u>\$ 1,277,270</u>	<u>\$ (294,577)</u>	\$ -	<u>\$ 982,693</u>
Fiduciary Funds:				
Capital Assets Being Depreciated:				
Software	\$ 7,244,785			\$ 7,244,785
Total Capital Assets Being Depreciated	7,244,785	-	-	7,244,785
Less Accumulated Depreciation for:				
Software	(4,076,803)	(730,544)		(4,807,347)
Total Capital Assets Being Depreciated, Net	<u>3,167,982</u>	<u>(730,544)</u>	-	<u>2,437,438</u>
Fiduciary Funds Capital Assets, Net	<u>\$ 3,167,982</u>	<u>\$ (730,544)</u>	\$ -	<u>\$ 2,437,438</u>
	Balance 7/1/2015	Additions	Deletions	Balance 6/30/2016
Proprietary Funds:				
Capital Assets Being Depreciated:				
Software	\$ 2,897,064	\$ 24,352	\$ -	\$ 2,921,416
Less Accumulated Amortization for:				
Software	(1,354,034)	(290,112)	-	(1,644,146)
Total Capital Assets Being Depreciated, Net	<u>1,543,030</u>	<u>(265,760)</u>	-	<u>1,277,270</u>
Proprietary Funds Capital Assets, Net	<u>\$ 1,543,030</u>	<u>\$ (265,760)</u>	\$ -	<u>\$ 1,277,270</u>
Fiduciary Funds:				
Capital Assets Being Depreciated:				
Software	\$ 7,184,137	\$ 60,648	\$ -	\$ 7,244,785
Total Capital Assets Being Depreciated	7,184,137	60,648	-	7,244,785
Less Accumulated Depreciation for:				
Software	(3,357,378)	(719,425)	-	(4,076,803)
Total Capital Assets Being Depreciated, Net	<u>3,826,759</u>	<u>(658,777)</u>	-	<u>3,167,982</u>
Fiduciary Funds Capital Assets, Net	<u>\$ 3,826,759</u>	<u>\$ (658,777)</u>	\$ -	<u>\$ 3,167,982</u>

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**NOTE 5 LEASE OBLIGATIONS**

**Operating Lease**

The system entered into an operating lease for office space until June 30, 2017, which was extended through the next biennium ending June 30, 2019. Expenditures for this lease were \$171,307 and \$171,344 for the years ended June 30, 2017 and 2016, respectively. The future minimum lease payment for the fiscal year ending June 30, 2018 is \$176,202.

The system has also entered into an operating lease for office equipment, with expenditures totaling \$7,955 for the year ended June 30, 2017 and \$6,841 for the year ended June 30, 2016.

The lease contains clauses stating that renewal is dependent upon appropriation funding by the State Legislature. Lease obligations for operating and capital leases are payable from all funds of the System.

**NOTE 6 CHANGE IN LONG-TERM LIABILITIES**

	Proprietary Fund		Fiduciary Fund	
	Accrued	Compensated	Accrued	Compensated
	Absences		Absences	
Balance - June 30, 2015	\$	86,422	\$	154,615
Increases		61,212		111,240
Decreases		(50,082)		(88,575)
Balance - June 30, 2016		97,552		177,280
Increases		62,269		118,632
Decreases		(59,488)		(104,763)
Balance - June 30, 2017	\$	100,333	\$	191,149
Balance - Due Within One Year	\$	7,395	\$	14,088

For the government activities, the accrued annual compensated absences is generally liquidated by excess revenue in the Uniform Group Insurance Program and the Pension Trust Funds.

**NOTE 7 NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM**

All eligible employees of the System, except those electing to participate in the North Dakota Defined Contribution Retirement Plan, contribute to the North Dakota Public Employees Retirement System (PERS), a state-wide cost-sharing multiple-employer defined benefit pension plan, which is detailed in the notes that follow.

The System is required to contribute to PERS at a statutorily determined rate for permanent employees. The System's contributions to PERS for the years ended June 30, 2017 and 2016, were \$219,291 and \$209,692 which were equal to the required contributions for each year.

The System is required to contribute to the North Dakota Defined Contribution Retirement Plan at a statutorily determined rate for permanent employees who have elected to participate in this plan. The System's contributions to this plan for the years ended June 30, 2017 and 2016, were \$13,959 and \$7,837.

**NOTE 8 DESCRIPTION OF PLANS**

**General**

The System administers three defined benefit pension plans and a defined contribution plan. The Public Employees Retirement System (PERS) is a cost-sharing multiple-employer retirement plan. The PERS was established July 1, 1966 as a defined contribution plan and was changed to a defined benefit plan by the 1977 North Dakota Legislature. The PERS is administered in accordance with Chapter 54-52 of the North Dakota Century Code. The Highway Patrolmen's Retirement System (HPRS) was established July 1, 1949 and is administered in accordance with Chapter 39-03 of the North Dakota Century Code. The HPRS is a single-employer defined benefit plan. The North Dakota Defined Contribution Retirement Plan was established on January 1, 2000 and is administered in accordance with Chapter 54-52.6 of the North Dakota Century Code. The Retirement Plan for Employees of Job Service North Dakota is a single-employer defined benefit public employee retirement plan administered by the Agency. The plan is established under NDCC 52-11-01 with benefit provisions established through the plan document, as amended.

The costs of administering PERS, HPRS, and the Retirement Plan for Employees of Job Service North Dakota are financed through the contributions and investment earnings of each plan. The administrative costs of the Defined Contribution Plan are funded by forfeitures of non-vested employee contributions and administrative fees charged to individual participant accounts.

The following brief description of the PERS, HPRS, Defined Contribution Plan and the Retirement Plan for Employees of Job Service North Dakota is provided for general information purposes only. Participants should refer to the applicable chapters of the North Dakota Century Code for more complete information.

The PERS covers substantially all employees of the State of North Dakota, its agencies and various participating political subdivisions (Main System). It also covers Supreme and District Court Judges, the National Guard Security Officers and Firefighters, peace officers and correctional officers employed by political subdivisions and as of August 1, 2017, firefighters employed by participating political subdivisions. Effective August 1, 2015, current and newly eligible members of the National Guard System were transferred to the Law Enforcement System. The HPRS covers substantially all sworn officers of the North Dakota Highway Patrol. An optional Defined Contribution Retirement Plan (DC Plan) was established effective January 1, 2000. The DC plan was available to state employees who are in positions not classified by the Human Resource Management Services division of the State of North Dakota. Employees under the judicial branch or the Board of Higher Education and State Institutions under the jurisdiction of the Board of Higher Education are not eligible to participate in the Plan. The 2013 Legislative Assembly passed legislation to expand eligibility to the Plan to include all new state employees hired on or after October 1, 2013 through July 31, 2017. The Retirement Plan for Employees of Job Service North Dakota is limited to employees participating in the plan as of September 30, 1980.

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

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**NOTE 8 DESCRIPTION OF PLANS (CONTINUED)**

The plans are not subject to the provisions of the Employee Retirement Income Security Act of 1974. The number of participating political subdivisions in the PERS was:

	2017	2016
Cities	89	89
Counties	49	49
School Districts	124	123
Other	81	75
Total Participating Political Subdivisions	<u>343</u>	<u>336</u>

Employee membership data is as follows:

	PERS		HPRS		Job Service	
	2017	2016	2017	2016	2017	2016
Retirees and Beneficiaries						
Currently Receiving Benefits	11,103	10,515	127	123	199	206
Special Prior Service Retirees	-	3	-	-	-	-
Terminated Vested Participants	5,751	5,456	30	31	1	1
Inactive Participants	5,903	5,277	9	8	-	-
Active Plan Participants						
Vested	16,397	16,018	69	67	8	9
Nonvested	6,846	7,398	82	89	-	-
Total Plan Membership	<u>46,000</u>	<u>44,667</u>	<u>317</u>	<u>318</u>	<u>208</u>	<u>216</u>

The defined contribution plan had 104 and 88 participants as of June 30, 2017 and 2016, respectively.

**BENEFITS**

**PERS**

Benefits are set by statute. The System has no provisions or policies with respect to automatic and ad hoc post-retirement benefit increases. Members of the main system are entitled to unreduced monthly pension benefits beginning when the sum of age and years of credited service equal or exceed 85 (Rule of 85), or at normal retirement age (65). For members hired on or after January 1, 2016, the Rule of 85 is replaced with the Rule of 90 with a minimum age of 60. The annual pension benefit is equal to 2.00% of their average monthly salary, using the highest 36 months out of the last 180 months of service, for each year of service. The Plan permits early retirement at ages 55-64 with three or more years of service.

Supreme and District Court Judges are entitled to unreduced monthly pension benefits beginning at normal retirement age of (65) or the Rule of 85. The monthly pension benefit is equal to a percentage of average monthly salary using the highest 36 months out of the last 180 months of service. The percentage is equal to 3.50% of average monthly salary multiplied by the first ten years of service, plus 2.80% of the average monthly salary times the second ten years of service, plus 1.25% of average monthly salary times years of service in excess of twenty years. The judicial retirement formula is only applied to eligible judicial service. Non-judicial service benefits are calculated using the 2.00% multiplier. The Plan permits early retirement at ages 55-64 with five or more years of service.

**NOTE 8 DESCRIPTION OF PLANS (CONTINUED)**

Members of the National Guard System are entitled to unreduced monthly pension benefits at normal retirement age (55). Effective August 1, 2015, the National Guard System became part of the Law Enforcement System. Members of the Law Enforcement System are entitled to unreduced monthly pension benefits at normal retirement age (55) or the Rule of 85. The monthly pension benefit for the National Guard/Law Enforcement is equal to 2.00% of their average monthly salary, using the highest 36 months out of the last 180 months of service, for each year of service. The Plan permits early retirement at ages 50-55 with three or more years of service.

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

**HPRS**

Benefits are set by statute. The System has no provisions or policies with respect to automatic and ad hoc post-retirement benefit increases. Members are entitled to unreduced pension benefits upon attainment of age 55 and 10 years of eligible employment or when the sum of age and years of credited service equals or exceeds 80. The annual pension benefit is equal to a percentage of average monthly salary using the highest 36 months out of the last 180 months of service. The percentage is equal to the sum of the first 25 years of service multiplied by 3.60% and 1.75% multiplied by years of service in excess of 25, if any. The Plan permits early retirement at ages 50-54, with ten or more years of service.

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

**Defined Contribution Plan**

Benefits are set by statute. Members are entitled to their vested account balance. A participating member is immediately 100% vested in the member's contributions. A participating member vests in the employer contributions made on the member's behalf as follows:

Upon completion of two years of service	50%
Upon completion of three years of service	75%
Upon completion of four years of service	100%

Members may elect to receive their account balance in a lump sum, lump sum direct rollover or periodic distribution. Legislation was passed during the 2015 session providing eligible members of the Defined Contribution Plan a special election period in which to elect to return to the PERS defined benefit plan.

**NOTE 8 DESCRIPTION OF PLANS (CONTINUED)**

**Retirement Plan for Employees of Job Service North Dakota**

Benefits are established through the plan document, as amended by the Board. The System provides a post-retirement cost-of living adjustment each year based on the Consumer Price Index. Employees are entitled to annual pension benefits beginning at normal retirement age (65). Employees may elect optional retirement eligibility at age 62 with 5 years of credited service, at age 60 with 20 years of credited service, or at age 55 with 30 years of credited service. Pension benefits are calculated based on the final average earnings (basic monthly earnings averaged over the highest three consecutive years of basic earnings) of the employee multiplied by the sum of:

- 1.5% times years of credited service up to five plus
- 1.75% times years of credited service between six and ten plus
- 2.0% times years of credited service in excess of ten years

**Death and Disability Benefits**

**PERS**

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

For Judges who have earned more than five years of credited service, the death benefit is the greater of (i) lump sum payment of accumulated contributions, or (ii) 100% of the members' accrued benefit (not reduced on account of age), payable for the spouse's lifetime.

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

For Judges only, the disability benefit formula is 70% of final average salary minus Social Security and Workers Compensation benefits.

**HPRS**

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



**NOTE 8 DESCRIPTION OF PLANS (CONTINUED)**

Eligible members who become totally disabled after a minimum of 180 days of service, receive monthly disability benefits that are up to 70% of their final average salary, reduced by worker's compensation, with a minimum benefit of \$100. To qualify under this section the member must meet the criteria established by the System for being totally disabled and apply for benefits within one year of termination.

**Defined Contribution Plan**

Death and disability benefits are set by statute. Upon the death of a participating member or former participating member, the vested account balance of that deceased participant is available to the participant's designated beneficiary(ies).

A member who becomes totally and permanently disabled while employed by the State is eligible to receive a distribution of the vested account balance. To qualify under this section, the member must meet the criteria established by the System for being totally disabled.

**Retirement Plan for Employees of Job Service North Dakota**

The plan document provides disability and death benefits. If the death of a participant occurs prior to his/her annuity starting date, the surviving spouse who has been married at least two years prior to the participant's death or, if married less than two years is a parent of a child of this marriage, then the spouse shall receive monthly benefits. The amount is the greater of the benefit had the participant retired on the day before he/she died and elected the Contingent Annuitant Option with 55% of his/her retirement benefit continued to his/her spouse or 55% of the smaller of 40% of the deceased participant's average monthly earnings or the deceased participant's normal retirement benefit obtained by increasing their credited service by the period of time between their date of death and the date they would have attained age 60. Upon remarriage of the surviving spouse before age 60, the death benefits will cease.

If a participant becomes totally disabled, he/she will be eligible for a monthly disability benefit that shall be equal to the greater of 40% of the participant's average annual earnings or the accrued benefit determined as their date of disability.

**Refunds of Member Contributions**

Upon termination, if a member of PERS or HPRS is not vested (is not 65 or does not have three years of service for the Main System and National Guard/Law Enforcement, or five years of service for the Supreme and District Court Judges, credited for the PERS, or is not 60 or does not have ten years of service credited for the HPRS), they will receive the accumulated member contributions plus interest, or may elect to receive this amount at a later date. If a member has vested, they have the option of applying for a refund or can remain as a terminated vested participant. If a member terminated and withdrew their accumulated member contribution and is subsequently reemployed, they have the option of repurchasing their previous service.

**CONTRIBUTIONS**

Contribution rates for PERS, HPRS, and the Defined Contribution Plan are set by state statute and are a percentage of salaries and wages. Contribution rates for the Job Service Retirement Plan are established in the plan document, as amended, which prescribes that they are actuarially determined using the frozen initial liability actuarial cost method which is the same as the aggregate cost method.

**North Dakota Public Employees Retirement System – Financial Section**  
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**NOTE 8 DESCRIPTION OF PLANS (CONTINUED)**

In 2011, the Legislative Assembly passed an increase in the employee and employer contribution rates for the PERS, Judges, Law Enforcement, Highway Patrol and Defined Contribution plans. Both the employee and employer contribution rates increased for each of the plans by an additional 1% (.5% for the Law Enforcement Plans for political subdivisions) effective January 2012 and January 2013. The 2013 Legislative Assembly also passed an increase in the employee and employer contribution rates for the PERS, Judges, National Guard, Law Enforcement, Highway Patrol and Defined Contribution plans. Effective January 2014, both the employee and employer contribution rates were increased for each of the plans by an additional 1% (.5% for the National Guard and Law Enforcement Plans for political subdivisions). Members that made a qualifying election under Senate Bill 2015 to move from the Defined Contribution Plan back to the Defined Benefit Plan have a 2% increase on employee contributions.

**PERS**

Member contributions are set by statute. During the 1983-1985 biennium the State and some of the participating political subdivisions implemented the employer pickup provision of the IRS code whereby a portion or all of the required member contributions are made by the employer. The State is paying 4% of the member contribution. Some of the political subdivisions are paying all or part of the member contributions. Employer contributions are set by statute except the contribution rates for the National Guard/Law Enforcement Plans which are set by the Board.

Contribution rates are established as a percent of covered compensation as follows:

	Member Contributions	Employer Contributions
Public Employees Retirement System*	7.00%	7.12%
Judges Retirement System	8.00%	17.52%
Law Enforcement with Previous Service		
State - BCI Plan	6.00%	9.81%
State - National Guard	5.50%	9.81%
Political Subdivisions	5.50%	9.81%
Law Enforcement without Previous Service	5.50%	7.93%

\* Members making the election to move from the Defined Contribution Plan back to the Defined Benefit Plan as a result of Senate Bill 2015 pay a 9% employee contribution

The entry age normal cost method determines the amount of contributions necessary to fund; (a) the current service cost, which represents the estimated amount necessary to pay for benefits earned by employees during the current service year and, (b) the prior service cost, which represents the amount necessary to pay for benefits earned prior to the effective date of the plan.

Except for Supreme and District Court Judges, the member's account balance includes the vested employer contributions equal to the member's contributions to an eligible deferred compensation plan.

**NOTE 8 DESCRIPTION OF PLANS (CONTINUED)**

The minimum member contribution is \$25 and the maximum may not exceed the following:

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

An open period of 20 years to fund accrued liabilities for the Public Employees Retirement System and the Supreme and District Court Judges has been adopted for the July 1, 1996 valuation and adopted for the National Guard Security Officers and Firefighters for the July 1, 1998 valuation. Currently, the present rate of contributions for the PERS plan is not sufficient to meet the actuarially determined requirement for 2017-2018.

**HPRS**

Member and employer contributions are set by statute as a percent of covered compensation. The state is paying 4.0% of the member contribution. The member contribution rate is 13.3% and the employer rate is 19.7%.

The entry age normal cost method determines the amount of contributions necessary to fund; (a) the current service cost, which represents the estimated amount necessary to pay for benefits earned by employees during the current service year and, (b) the prior service cost, which represents the amount necessary to pay for benefits earned prior to the effective date of the plan.

An open period of 20 years to fund accrued liabilities for the Highway Patrolmen's Retirement System has been adopted for the July 1, 1996 valuation. Currently, the present rate of contributions is not sufficient to meet the actuarially determined requirement for 2017-2018.

**Defined Contribution Plan**

Member and employer contributions are set by statute as a percent of covered compensation. The state is paying 4% of the member contribution. The member contribution rate is 7.00% and the employer rate is 7.12%.

**Retirement Plan for Employees of Job Service North Dakota**

Employees' contributions are established at 7.0% of total compensation. The funding policy of the plan provides for employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are designed to accumulate sufficient assets to pay benefits when due.

Effective July 1, 1999, the "scheduled contribution" will be zero as long as the plan's actuarial value of assets exceeds the actuarial present value of projected benefits. The "scheduled contribution" and amortization will be determined when the plan is not in surplus and will be based on a funding policy adopted by the Employer.

**North Dakota Public Employees Retirement System – Financial Section**  
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**NOTE 9 NET PENSION LIABILITY OF THE PLANS**

The components of the net pension liability of the Plans at June 30, 2017 and 2016, are as follows:

2017	PERS	HPRS	JSND
Total Pension Liability	\$ 4,354,371,690	\$ 94,047,078	\$ 63,629,469
Plan Fiduciary Net Position	2,727,835,589	73,336,316	97,265,411
Net Pension Liability (Asset)	\$ 1,626,536,101	\$ 20,710,762	\$ (33,635,942)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	62.65%	77.98%	152.86%
2016	PERS	HPRS	JSND
Total Pension Liability	\$ 3,396,565,467	\$ 87,921,960	\$ 61,204,772
Plan Fiduciary Net Position	2,414,895,657	65,811,337	96,533,954
Net Pension Liability (Asset)	\$ 981,669,810	\$ 22,110,623	\$ (35,329,182)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	71.10%	74.85%	157.72%

The plan provisions used in the measurement of the total pension liability are the same as those used in the PERS, HPRS and JSND Actuarial Valuation and Reviews as of July 1, 2017 and 2016.

**Actuarial Assumptions**

The actuarial assumptions used in the June 30, 2017 valuations were based on the results of an actuarial experience study for the period July 1, 2009 – June 30, 2014 as adopted by the Board.

**PERS and HPRS**

The total pension liability was determined by an actuarial valuation as of July 1, 2017 and 2016, using the following actuarial assumptions, applied to all periods included in the measurement (unless noted otherwise):

<b>Inflation</b>	For June 30, 2017, 2.5%. For June 30, 2016, 3.5%	
<b>Salary Increase (Payroll Growth)</b>	For June 30, 2017:	
	Service at Beginning of Year:	Increase Rate:
	0	15.00%
	1	10.00%
	2	8.00%
	Age*	
	Under 36	8.00%
	36 - 40	7.50%
	41 - 49	6.00%
	50+	5.00%

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

For June 30, 2016:  
4.50% per annum for Highway Patrol, Main System, National Guard and Law Enforcement; 4% per annum for Judges.

**North Dakota Public Employees Retirement System – Financial Section**  
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**NOTE 9 NET PENSION LIABILITY OF THE PLANS (CONTINUED)**

**Investment Rate of Return** For June 30, 2017, 7.75%, net of investments expense, including inflation. For June 30, 2016, 8.00%, net of investments expense, including inflation

**Mortality Rates** For June 30, 2017 and June 30, 2016, mortality rates for active members, inactive members and healthy retirees were based on the RP-2000 Combined Healthy Mortality Table, set back two years for males and three years for females, projected generationally using the SSA 2014 Intermediate Cost scale from 2014. For disabled retirees, mortality rates were based on the RP-2000 Disabled Mortality Table, set back one year for males (no setback for females) multiplied by 125%.

**Discount Rates** For PERS: Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year mixed maturity general obligation bonds with an average Standard & Poor's Corp.'s AA credit rating (which is published by Fidelity) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.75%; the municipal bond rate is 3.56% (based on the most recent date available on or before the measurement date of the "20-year Municipal GO Index" from Fidelity); and the resulting Single Discount Rate is 6.44% for June 30, 2017.

For HPRS: For the purpose of this valuation, the expected rate of return on pension plan investments is 7.75%; the municipal bond rate is 3.56% (based on the most recent date available on or before the measurement date of the "20-year Municipal GO Index" from Fidelity); and the resulting Single Discount Rate is 7.75% for June 30, 2017.

The discount rate for PERS and HPRS was equal to the investment rate of return of 8% for June 30, 2016.

**JSND**

The total pension liability was determined by an actuarial valuation as of July 1, 2017 and 2016, using the following actuarial assumptions, applied to all periods included in the measurement (unless noted otherwise):

<b>Inflation</b>	For June 30, 2017, 2.5%. For June 30, 2016, 3.5%.
<b>Salary Increase (Payroll Growth)</b>	For June 30, 2017 and June 30, 2016, 3.5% per annum
<b>Investment Rate of Return</b>	For June 30, 2017, 5.70%, net of investment expense, including inflation. For June 30, 2016, 7.00%, net of investment expense, including inflation.
<b>Cost of Living Adjustment</b>	For June 30, 2017, 3.50% per annum. For June 30, 2016, 3.00% per annum
<b>Mortality Rates</b>	For June 30, 2017 and June 30, 2016, mortality rates for active members, inactive members and healthy retirees were based on the RP-2000 Combined Healthy Mortality Table, set back two years for males and three years for females, projected generationally using the SSA 2014 Intermediate Cost scale from 2014. For disabled retirees, mortality rates were based on the RP-2000 Disabled Mortality Table, set back one year for males, (no setback for females) multiplied by 125%.

**NOTE 9 NET PENSION LIABILITY OF THE PLANS (CONTINUED)**

**Investment Rate of Return**

The long-term expected investment rate of return assumption for PERS, HPRS, and JSND was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Estimates of arithmetic real rates of return, for each major asset class included in the pension plan's target asset allocation as of July 1, 2017 are summarized in the following tables:

**PERS and HPRS**

<u>Asset Class</u>	<u>Long-Term Expected Real Rate of Return</u>
Domestic Equity	6.05%
International Equity	6.70%
Private Equity	10.20%
Domestic Fixed Income	1.43%
International Fixed Income	-0.45%
Global Real Assets	5.16%
Cash Equivalents	0.00%

**JSND**

<u>Asset Class</u>	<u>Long-Term Expected Real Rate of Return</u>
Domestic Equity	7.16%
Core Fixed Income	4.26%
Limited Duration Fixed Income	3.18%
Global Equity	7.11%
Diversified Short-Term Fixed Income	3.54%
Short-Term Corporate Fixed Income	2.48%
US High Yield	6.13%
Emerging Market Debt	7.45%

**NOTE 9 NET PENSION LIABILITY OF THE PLANS (CONTINUED)**

**Discount Rate**

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

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.75%; the municipal bond rate is 3.56%; and the resulting Single Discount Rate is 6.44%.

For HPRS, the discount rate used to measure the total pension liability was 7.75% as of June 30, 2017 and 8% as of June 30, 2016.

For JSND, the discount rate was 5.70% as of June 30, 2017 and 7% as of June 30, 2016. The projection of cash flows used to determine the discount rate assumed plan member and employer contributions will be made at rates equal to those based on the July 1, 2017 and July 1, 2016 Actuarial Valuation Reports. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions (for JSND it is assumed no future contribution will be made), the pension plans' fiduciary net position were projected to be available to make all projected future benefit payments for current plan members as of June 30, 2017. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2017 and 2016.

**Sensitivity of Net Pension Liability (Asset)**

The following presents the net pension liability (asset) of the Plans as of June 30, 2017, calculated using the discount rate of 6.44% for PERS (8% as of June 30, 2016), 7.75% for HPRS (8% as of June 30, 2016) and 5.70% for JSND (7% as of June 30, 2016), as well as what the Plan's net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

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**NOTE 9 NET PENSION LIABILITY OF THE PLANS (CONTINUED)**

<b>Net Pension Liability (Asset) as of June 30, 2017</b>	<b>1% Decrease (5.44%)</b>	<b>Current Discount (6.44%)</b>	<b>1% Increase (7.44%)</b>
PERS	\$ 2,218,162,831	\$ 1,626,536,101	\$ 1,134,481,805
	<b>1% Decrease (6.75%)</b>	<b>Current Discount (7.75%)</b>	<b>1% Increase (8.75%)</b>
HPRS	32,746,885	20,710,762	10,712,591
<b>Net Pension Liability (Asset) as of June 30, 2017</b>	<b>1% Decrease (4.70%)</b>	<b>Current Discount (5.70%)</b>	<b>1% Increase (6.70%)</b>
JSND	\$ (27,182,597)	\$ (33,635,942)	\$ (39,131,324)
<b>Net Pension Liability (Asset) as of June 30, 2016</b>	<b>1% Decrease (7.00%)</b>	<b>Current Discount (8.00%)</b>	<b>1% Increase (9.00%)</b>
PERS	\$ 1,401,158,232	\$ 981,669,810	\$ 628,295,237
HPRS	33,272,054	22,110,623	12,830,376
<b>Net Pension Liability (Asset) as of June 30, 2016</b>	<b>1% Decrease (6.00%)</b>	<b>Current Discount (7.00%)</b>	<b>1% Increase (8.00%)</b>
JSND	\$ (29,386,845)	\$ (35,329,182)	\$ (40,412,093)

**NOTE 10 RETIREE HEALTH INSURANCE CREDIT (RHIC) FUND**

The Retiree Health Insurance Credit Fund, a cost-sharing multiple-employer plan, is administered by the System to provide members receiving retirement benefits from the PERS, the HPRS, and Judges retired under Chapter 27-17 of the North Dakota Century Code a credit toward their monthly health insurance premium under the state health plan based upon the member's years of credited service. Effective July 1, 2015, the credit is also available to apply towards monthly premiums under the state dental, vision and long term care plan and any other health insurance plan. The Retiree Health Insurance Credit Fund is advance-funded on an actuarially determined basis.

Employee membership data is as follows:

	<b>2017</b>	<b>2016</b>
Retired Participants, Receiving Benefits	11,232	10,320
Active Participants, Not Receiving Benefits	23,497	23,664
	<b>34,729</b>	<b>33,984</b>



**NOTE 10 RETIREE HEALTH INSURANCE CREDIT (RHIC) FUND (CONTINUED)**

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

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

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

**NOTE 11 NET OPEB LIABILITY OF THE RHIC FUND**

The components of the net OPEB liability of the RHIC Plan at June 30, 2017 are as follows:

<u>2017</u>	<u>RHIC</u>
Total OPEB Liability	\$ 196,694,770
RHIC Fiduciary Net Position	117,593,690
Net OPEB Liability (Asset)	<u>\$ 79,101,080</u>
RHIC Fiduciary Net Position as a Percentage of the Total OPEB Liability	59.78%

**Actuarial Assumptions**

**RHIC**

<b>Inflation</b>	For June 30, 2017, 2.5%. For June 30, 2016, 3.5%
<b>Salary Increase (Payroll Growth)</b>	Not Applicable
<b>Investment Rate of Return</b>	For June 30, 2017, 7.50%, net of investments expense, including inflation. For June 30, 2016, 8.00%, net of investments expense, including inflation

**NOTE 11 NET OPEB LIABILITY OF THE RHIC FUND (CONTINUED)**

**Mortality Rates** For June 30, 2017 and June 30, 2016, mortality rates for active members, inactive members and healthy retirees were based on the RP-2000 Combined Healthy Mortality Table, set back two years for males and three years for females, projected generationally using the SSA 2014 Intermediate Cost scale from 2014. For disabled retirees, mortality rates were based on the RP-2000 Disabled Mortality Table, set back one year for males (no setback for females) multiplied by 125%.

**Other Notes:** There were no benefit changes during the year.

Investment return assumption was lowered from 8.00 percent to 7.50 percent. All other actuarial assumptions were adopted by the Board and are based on an experience study covering the period July 1, 2009, through June 30, 2014.

The employer rate to the System is the statutory contribution rate of 1.14% of payroll.

**Investment Rate of Return**

The long-term expected investment rate of return assumption for the RHIC fund was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of RHIC investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Estimates of arithmetic real rates of return, for each major asset class included in the RHIC’s target asset allocation as of July 1, 2017 are summarized in the following table:

<u>RHIC</u>	<u>Long-Term Expected Real Rate of Return</u>
<u>Asset Class</u>	
Large Cap Domestic Equities	5.80%
Small Cap Domestic Equities	7.05%
International Equities	6.20%
Core-Plus Fixed Income	1.56%

**Discount Rate**

The discount rate used to measure the total OPEB liability was 7.75%. The projection of cash flows used to determine the discount rate assumed plan member and statutory/Board approved employer contributions will be made at rates equal to those based on the July 1, 2017, and July 1, 2016, HPRS actuarial valuation reports. For this purpose, only employer contributions that are intended to fund benefits of current RHIC members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the RHIC fiduciary net position was projected to be sufficient to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on RHIC investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

**NOTE 11 NET OPEB LIABILITY OF THE RHIC FUND (CONTINUED)**

**Sensitivity of Net OPEB Liability (Asset)**

The following presents the net OPEB liability of the Plans as of June 30, 2017, calculated using the discount rate of 7.50%, as well as what the RHIC net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

<b>Net OPEB Liability (Asset) as of June 30, 2017</b>	<b>1% Decrease (6.50%)</b>	<b>Current Discount (7.50%)</b>	<b>1% Increase (8.50%)</b>
RHIC	\$ 99,024,934	\$ 79,101,080	\$ 62,022,814

The benefit provided by the North Dakota Retiree Health Insurance Credit Fund is a fixed dollar subsidy and is not affected by healthcare cost trend. Therefore, a sensitivity analysis was not performed.

**NOTE 12 IMPLICIT SUBSIDY UNFUNDED PLAN**

The Implicit Subsidy Unfunded Plan provides health care coverage to eligible retirees who are not eligible for Medicare. The premiums for this coverage are set under North Dakota Century Code Chapter 54-52.1-02 as a percent of the active member single and family plan rates and are paid by the retiree. The premiums for this coverage are not age-rated. Currently, the premiums for this group do not cover the costs of the coverage; therefore, the costs of this group are being subsidized through the active group rates. This subsidy is not funded in advance and there is no guarantee that the subsidy for the 2015-17 biennium will continue in the future.

A retiree must be receiving a retirement allowance from NDPERS, ND TFFR or TIAA-CREF to be eligible for the retiree health care coverage. Effective July 1, 2015, eligibility for this coverage is limited to employees who retired prior to July 2015 and/or former Legislators.

The premiums for this plan are reported as premium revenue on the Statement of Revenues, Expenses, and Changes in Fund Net Position in the Uniform Group Insurance Plan. The full amount of the premiums collected are expended each year and are reported as premium expenses on the Statement of Revenues, Expenses, and Changes in Fund Net Position in the Uniform Group Insurance Plan.

**Funded Status and Funding Progress**

The funded status of the plan as of June 30, 2016, determined using a June 30, 2015 actuarial valuation date, is detailed below (in millions):

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Plan	Actuarial Valuation Date June 30	Actuarial Value of Plan Assets	Actuarial Accrued Liability (AAL)	Unfunded (Overfunded) Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll	UAAL as a Percentage of Annual Covered Payroll
Retiree Health Implicit Subsidy	2015	\$ -	\$ 7.0	\$ 7.0	0.0%	\$ -	0.0%

\*See Note 10 for additional discussion on the Funded Status and Funding Progress

**NOTE 12 IMPLICIT SUBSIDY UNFUNDED PLAN (CONTINUED)**

Significant actuarial assumptions employed by the actuary for funding purposes as of the June 30, 2015 actuarial valuation, the date of the latest actuarial valuation, include:

**Mortality Rates:** RP-2000 Combined Healthy Mortality Table, set back two years for males and three years for females. RP-2000 Disabled Retiree Mortality Table, set back one year for males (not set back for females) multiplied by 125%

**Withdrawal Rates:** Rates of withdrawal from active service before retirement for reasons other than death, rates of disability and expected retirement ages developed on the basis of an investigation of actual plan experience.

**Interest Rate:** 8.00% per annum, net of investment expenses.

**Inflation:** 3.50% per annum.

**Expenses:** Prior year expenses, adjusted for inflation.

**NOTE 13 DEFERRED COMPENSATION PLAN FOR PUBLIC EMPLOYEES**

The System was given the authority by Chapter 54-52.2 to administer an employee deferred compensation plan in accordance with Internal Revenue Code Section 457. The plan allows employees of the State of North Dakota or any of its political subdivisions, institutions, departments, or agencies to participate, providing that the employee has signed a participant agreement, which permits them to defer a portion of their salary until future years. Each participant may defer the lesser of \$18,000 or 100% of gross annual compensation for the calendar years of 2017 and 2016, respectively. The deferred compensation is not available to employees until termination, retirement, death, or unforeseeable emergency.

All compensation deferred under the plans, all property and rights purchased with those amounts, and all income attributable to those amounts, property or rights are held in trust for the exclusive use of the employee or their beneficiary.

The deferred compensation plan had 12,581 and 12,171 participants as of June 30, 2017 and 2016, respectively.

The related investments are reported at fair value as follows:

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	2017		2016	
Investment Balance by:				
State of North Dakota	\$ 87,905,420	90%	\$ 69,691,547	89%
Other Jurisdictions	10,237,418	10%	8,181,634	11%
Total Investments	\$ 98,142,838	100%	\$ 77,873,181	100%

**NOTE 14 FEDERAL INCOME TAX STATUS**

The System is qualified under Section 401(a) of the Internal Revenue Code (IRC) and is exempt from the payment of any federal income taxes under Section 501(a) of the IRC and by virtue of being an agency of the state of North Dakota.

**NOTE 15 UNIFORM GROUP INSURANCE PROGRAM SURPLUS**

The Uniform Group Insurance Program, a proprietary fund, contracted with Blue Cross Blue Shield of North Dakota (BCBS) to provide health care insurance to the employees of the State of North Dakota, or any of its political subdivisions, institutions, departments or agencies. The contract for the 2013-2015 biennium provides for an accounting of premiums paid and claims incurred during the biennium. The final gain or loss is determined two years after the end of the biennium, which for the 2013-2015 biennium occurred on June 30, 2017. For this period, premiums exceeded claims, therefore, a gain of \$1.9 million was returned to the System. The accumulated surplus and other invested funds in the amount of \$46.8 million are shown as cash on the System's balance sheet.

The System entered into a similar contract with Sanford Health Plan for the 2015-2017 biennium. The contract for the 2015-2017 biennium provides for an accounting of premiums paid and claims incurred during the biennium. The final gain or loss is determined two years after the end of the biennium, which for the 2015-2017 biennium will occur in 2019. The System has \$3.0 million at risk, and it is reasonably assured claims will exceed premiums, and the full \$3.0 million that is at risk was recorded as an underwriting loss in 2016, and shown as a liability to Sanford Health Plan. The System entered into a similar contract with Sanford Health Plan for the 2017-2019 biennium, however, in the event of a loss, the system does not have any risk. No other insurance contracts have a gain sharing provision.

**NOTE 16 RISK MANAGEMENT**

The System is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The following are funds/pools established by the state for risk management issues:

The 1995 Legislative Session established the Risk Management Fund (RMF), an internal service fund, to provide a self-insurance vehicle for funding the liability exposures of state agencies resulting from the elimination of the state's sovereign immunity. The RMF manages the tort liability of the state, its agencies' employees and the University System. All state agencies participate in the RMF and their fund contribution was determined using a projected cost allocation approach. The statutory liability of the State is limited to a total of \$250,000 per person and \$1,000,000 per occurrence.

The System also participates in the North Dakota Fire and Tornado Fund and the State Bonding Fund. The agency pays an annual premium to the Fire and Tornado Fund to cover property damage to

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building and personal property. Replacement cost coverage is provided by estimating replacement cost in consultation with the Fire and Tornado Fund. The Fire and Tornado Fund is reinsured by a third party insurance carrier for losses in excess of one million dollars per occurrence during a 120-month period. The State Bonding Fund currently provides the agency with blanket fidelity bond coverage in the amount of \$2,000,000 for its employees. The State Bonding Fund does not currently charge any premium for this coverage.

The System participates in the North Dakota Workforce Safety, an Enterprise Fund of the State of North Dakota. Workforce Safety is a state insurance fund and a "no fault" insurance system covering the State's employers and employees financed by premiums assessed to employers. The premiums are available for the payment of claims to employees injured in the course of employment.

There have been no significant reductions in insurance coverage from the prior year and settled claims resulting from these risks have not exceeded insurance coverage in any of the past three fiscal years.

**NOTE 17 RELATED PARTIES**

As stated in Note 1 of these financial statements, the System is a state agency of the state of North Dakota, as such, the other state agencies of the state and political subdivisions are related parties.

**NOTE 18 RECLASSIFICATION**

Certain amounts from the prior year financial statements have been reclassified to conform to the presentation of the current year financial statements.

**NOTE 19 SUBSEQUENT EVENTS**

The System evaluated subsequent events through November 20, 2017, which is the date the financial statements were available to be issued. Events or transactions occurring after June 30, 2017, but prior to REPORT DATE that provided additional evidence about conditions that existed at June 30, 2017, have been recognized in the financial statements for the year ended June 30, 2017. Events or transactions that provided evidence about conditions that did not exist at June 30, 2017, but arose before the financial statements were available to be issued have not been recognized in the financial statements for the year ended June 30, 2017.

**NOTE 20 CONTINGENCY**

The State Investment Board has been named as a defendant in two cases, arising out of the Tribune and General Motors bankruptcy proceedings, relating to securities that were purchased by external investment managers in one or more portfolios held by the SIB on behalf of its investment client funds. Outside counsel has been retained for both cases, in addition to assistance received from the ND Office of Attorney General. As of June 30, 2017, no liability has been recorded for the General Motors bankruptcy proceedings as it is too early in the litigation process to reasonably determine whether any payments will be required. The claim against the SIB in the Tribune bankruptcy litigation has been dismissed, but a final order has not been entered because the Court has yet to decide the remaining claims in the case against unrelated defendants. Any final judgment (including with respect to the claim against the SIB) is subject to appeal. Accordingly, no liability has been recorded at this time.

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Schedule of Changes to the Net Pension Liability and Related Ratios  
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**Public Employees Retirement System**

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
<b>Total Pension Liability</b>				
Service Cost	\$ 113,148,379	\$ 126,443,929	\$ 104,158,320	\$ 94,611,357
Interest	269,769,850	243,284,784	236,419,648	218,719,441
Change of Benefit Terms	-	-	2,615	-
Differences Between Expected and Actual Experience	(3,612,020)	15,914,938	4,395,805	25,782,859
Changes of Assumptions	741,491,982	108,139,418	(76,152,255)	-
Benefit Payments, Including Refund of Employee Contributions	(162,991,968)	(149,664,141)	(134,929,737)	(119,886,323)
<b>Net Change in Total Pension Liability</b>	<u>957,806,223</u>	<u>344,118,928</u>	<u>133,894,396</u>	<u>219,227,334</u>
<b>Total Pension Liability (Asset) - Beginning</b>	<u>3,396,565,467</u>	<u>3,052,446,539</u>	<u>2,918,552,143</u>	<u>2,699,324,809</u>
<b>Total Pension Liability (Asset) - Ending (a)</b>	<u><u>\$4,354,371,690</u></u>	<u><u>\$ 3,396,565,467</u></u>	<u><u>\$ 3,052,446,539</u></u>	<u><u>\$ 2,918,552,143</u></u>
<b>Plan Fiduciary Net Position</b>				
Contributions - Employer	\$ 78,933,571	\$ 77,080,576	\$ 70,842,535	\$ 61,661,050
Contributions - Employee	76,007,456	74,218,276	68,392,061	59,394,200
Service Credit Repurchase	11,805,070	9,179,163	6,651,879	8,325,140
Net Investment Income	311,760,863	11,333,836	81,536,565	316,629,563
Transfers from Other Plans	32,183	23,574,937	-	-
Benefit Payments, Including Refund of Employee Contributions	(162,991,968)	(149,664,141)	(134,929,737)	(119,886,324)
Administrative Expense	(2,607,243)	(2,537,799)	(2,365,357)	(2,210,792)
<b>Net Change in Plan Fiduciary Net Position</b>	<u>312,939,932</u>	<u>43,184,848</u>	<u>90,127,946</u>	<u>323,912,837</u>
Plan Fiduciary Net Position - Beginning	<u>2,414,895,657</u>	<u>2,371,710,809</u>	<u>2,281,582,863</u>	<u>1,957,670,026</u>
Plan Fiduciary Net Position - Ending (B)	<u><u>2,727,835,589</u></u>	<u><u>2,414,895,657</u></u>	<u><u>2,371,710,809</u></u>	<u><u>2,281,582,863</u></u>
<b>Net Pension Liability (Asset) - Ending (A)-(B)</b>	<u><u>\$1,626,536,101</u></u>	<u><u>\$ 981,669,810</u></u>	<u><u>\$ 680,735,730</u></u>	<u><u>\$ 636,969,280</u></u>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability Covered Payroll</b>	62.65%	71.10%	77.70%	78.18%
<b>Plan Net Pension Liability (Asset) as a Percentage of Covered Payroll</b>	152.96%	93.62%	69.92%	71.69%

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

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For the Years Ended June 30**

**Highway Patrolmen's Retirement System**

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
<b>Total Pension Liability</b>				
Service Cost	\$ 2,701,326	\$ 2,226,286	\$ 2,038,291	\$ 1,894,183
Interest	6,951,177	6,311,403	6,007,875	5,750,017
Change of Benefit Terms	-	-	-	-
Differences Between Expected and Actual Experience	21,564	39,748	984,241	(299,964)
Changes of Assumptions	1,257,370	3,945,801	394,419	-
Benefit Payments, Including Refund of Employee Contributions	(4,806,319)	(4,713,495)	(4,745,510)	(3,784,735)
<b>Net Change in Total Pension Liability</b>	<u>6,125,118</u>	<u>7,809,743</u>	<u>4,679,316</u>	<u>3,559,501</u>
<b>Total Pension Liability (Asset) - Beginning</b>	<u>87,921,960</u>	<u>80,112,217</u>	<u>75,432,901</u>	<u>71,873,400</u>
<b>Total Pension Liability (Asset) - Ending (a)</b>	<u><u>\$ 94,047,078</u></u>	<u><u>\$ 87,921,960</u></u>	<u><u>\$ 80,112,217</u></u>	<u><u>\$ 75,432,901</u></u>
<b>Plan Fiduciary Net Position</b>				
Contributions - Employer	\$ 2,155,944	\$ 2,127,355	\$ 2,002,291	\$ 1,864,632
Contributions - Employee	1,455,540	1,436,236	1,351,798	1,243,520
Service Credit Repurchase	249,436	-	96,429	87,418
Net Investment Income	8,500,352	316,963	2,334,780	9,239,929
Transfers from Other Plans	221	-	-	-
Benefit Payments, Including Refund of Employee Contributions	(4,806,319)	(4,713,495)	(4,745,510)	(3,784,735)
Administrative Expense	(30,195)	(31,450)	(30,925)	(27,983)
<b>Net Change in Plan Fiduciary Net Position</b>	<u>7,524,979</u>	<u>(864,391)</u>	<u>1,008,863</u>	<u>8,622,781</u>
Plan Fiduciary Net Position - Beginning	<u>65,811,337</u>	<u>66,675,728</u>	<u>65,666,865</u>	<u>57,044,084</u>
Plan Fiduciary Net Position - Ending (B)	<u><u>73,336,316</u></u>	<u><u>65,811,337</u></u>	<u><u>66,675,728</u></u>	<u><u>65,666,865</u></u>
<b>Net Pension Liability (Asset) - Ending (A)-(B)</b>	<u><u>\$ 20,710,762</u></u>	<u><u>\$ 22,110,623</u></u>	<u><u>\$ 13,436,489</u></u>	<u><u>\$ 9,766,036</u></u>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	77.98%	74.85%	83.23%	87.05%
<b>Covered Payroll</b>	\$ 10,629,403	\$ 10,526,791	\$ 10,145,713	\$ 9,348,386
<b>Plan Net Pension Liability (Asset) as a Percentage of Covered Payroll</b>	194.84%	210.04%	132.44%	104.47%

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



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**Retirement Plan for Employees of Job Service North Dakota**

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
<b>Total Pension Liability</b>				
Service Cost	\$ 55,500	\$ 71,420	\$ 127,734	\$ 87,668
Interest	4,130,232	4,281,440	5,026,167	5,107,459
Change of Benefit Terms	-	-	-	-
Differences Between Expected and Actual Experience	(1,648,283)	(2,006,791)	(1,806,271)	(1,607,033)
Changes of Assumptions	4,421,401	69,885	(309,878)	-
Benefit Payments, Including Refund of Employee Contributions	(4,534,153)	(4,601,196)	(4,694,171)	(4,594,462)
<b>Net Change in Total Pension Liability</b>	<u>2,424,697</u>	<u>(2,185,242)</u>	<u>(1,656,419)</u>	<u>(1,006,368)</u>
<b>Total Pension Liability (Asset) - Beginning</b>	<u>61,204,772</u>	<u>63,390,014</u>	<u>65,046,433</u>	<u>66,052,801</u>
<b>Total Pension Liability (Asset) - Ending (a)</b>	<u>\$ 63,629,469</u>	<u>\$ 61,204,772</u>	<u>\$ 63,390,014</u>	<u>\$ 65,046,433</u>
<b>Plan Fiduciary Net Position</b>				
Contributions - Employer	\$ -	\$ -	\$ -	\$ -
Contributions - Employee	39,417	44,178	50,142	55,748
Service Credit Repurchase	-	-	-	-
Net Investment Income	5,238,877	4,840,333	3,260,507	11,887,840
Transfers from Other Plans	-	-	-	-
Benefit Payments, Including Refund of Employee Contributions	(4,534,153)	(4,601,196)	(4,694,171)	(4,594,462)
Administrative Expense	(12,684)	(32,253)	(30,214)	(31,455)
<b>Net Change in Plan Fiduciary Net Position</b>	<u>731,457</u>	<u>251,062</u>	<u>(1,413,736)</u>	<u>7,317,671</u>
Plan Fiduciary Net Position - Beginning	<u>96,533,954</u>	<u>96,282,892</u>	<u>97,696,628</u>	<u>90,378,957</u>
Plan Fiduciary Net Position - Ending (B)	<u>97,265,411</u>	<u>96,533,954</u>	<u>96,282,892</u>	<u>97,696,628</u>
<b>Net Pension Liability (Asset) - Ending (A)-(B)</b>	<u>\$ (33,635,942)</u>	<u>\$ (35,329,182)</u>	<u>\$ (32,892,878)</u>	<u>\$ (32,650,195)</u>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability Covered Employee Payroll</b>	152.86%	157.72%	151.89%	150.20%
<b>Plan Net Pension Liability (Asset) as a Percentage of Covered Employee Payroll</b>	\$ 498,564	\$ 564,684	\$ 790,649	\$ 842,601
	(6,746.56)%	(6,256.45)%	(4,160.24)%	(3,874.93)%

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

**North Dakota Public Employees Retirement System – Financial Section**  
**Required Supplementary Information**  
**Schedule of Changes to the Net Other Post Employment Benefit Liability and Related Ratios**  
**For the Years Ended June 30**

**Retiree Health Insurance Credit Fund**

	<u>2017</u>
<b>Total Pension Liability</b>	
Service Cost	\$ 3,430,578
Interest	14,327,443
Change of Benefit Terms	-
Differences Between Expected and Actual Experience	(2,231,206)
Changes of Assumptions	8,860,723
Benefit Payments, Including Refund of Employee Contributions	<u>(10,014,370)</u>
<b>Net Change in Total Pension Liability</b>	<u>14,373,168</u>
<b>Total Pension Liability (Asset) - Beginning</b>	<u>182,321,602</u>
<b>Total Pension Liability (Asset) - Ending (a)</b>	<u><u>\$ 196,694,770</u></u>
<b>Plan Fiduciary Net Position</b>	
Contributions - Employer	\$ 12,575,627
Contributions - Employee	16,173
Service Credit Repurchase	464,323
Net Investment Income	12,074,082
Transfers from Other Plans	-
Benefit Payments, Including Refund of Employee Contributions	(10,014,370)
Administrative Expense	<u>(443,220)</u>
<b>Net Change in Plan Fiduciary Net Position</b>	<u>14,672,615</u>
Plan Fiduciary Net Position - Beginning	<u>102,921,075</u>
Plan Fiduciary Net Position - Ending (B)	<u><u>117,593,690</u></u>
<b>Net Pension Liability (Asset) - Ending (A)-(B)</b>	<u><u>\$ 79,101,080</u></u>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	59.78%
<b>Covered Employee Payroll</b>	\$ 1,081,841,008
<b>Plan Net Pension Liability (Asset) as a Percentage of Covered Employee Payroll</b>	7.31%

*\*Complete data for this schedule is not available prior to 2017.*

**North Dakota Public Employees Retirement System – Financial Section  
Required Supplementary Information  
Schedule of Employer Contributions  
For the Years Ended June 30**

**Public Employees Retirement System**

	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Actuarially Determined Contribution	116,564	124,336	107,514	107,864	97,985	91,458	82,910	54,158	40,327	35,875
Contributions in Relation to the Actuarially Determined Contribution	78,934	77,081	70,843	61,661	48,847	38,006	32,278	30,253	27,705	25,254
Contribution Deficiency (Excess)	37,630	47,255	36,671	46,203	49,138	53,452	50,632	23,905	12,622	10,621
Covered Payroll	1,063,372	1,048,548	973,536	888,452	800,878	804,169	769,710	697,737	640,685	582,287
Contributions as a Percentage of Covered Payroll	7.42%	7.35%	7.28%	6.94%	6.10%	4.73%	4.19%	4.34%	4.32%	4.34%

**Highway Patrolmen's Retirement System**

	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Actuarially Determined Contribution	3,060	2,307	2,201	2,348	2,191	2,171	1,744	1,313	1,026	924
Contributions in Relation to the Actuarially Determined Contribution	2,156	2,127	2,002	1,865	1,586	1,423	1,286	1,197	1,123	1,059
Contribution Deficiency (Excess)	904	180	199	483	605	748	458	116	(97)	(135)
Covered Payroll	10,629	10,527	10,146	9,348	8,167	8,002	7,738	7,009	6,509	6,129
Contributions as a Percentage of Covered Payroll	20.28%	20.21%	19.73%	19.95%	19.42%	17.78%	16.62%	17.08%	17.25%	17.28%

**Retirement Plan for Employees of Job Service North Dakota**

	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Actuarially Determined Contribution	-	-	-	-	-	-	-	-	-	-
Contributions in Relation to the Actuarially Determined Contribution	-	-	-	-	-	-	-	-	-	-
Contribution Deficiency (Excess)	-	-	-	-	-	-	-	-	-	-
Covered Payroll	499	565	791	843	1,011	1,163	1,266	1,487	1,613	1,843
Contributions as a Percentage of Covered Payroll	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

**Retiree Health Insurance Credit Plan**

	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Actuarially Determined Contribution	11,696	7,544	6,439	7,014	7,411	7,263	7,053	7,199	5,805	5,708
Contributions in Relation to the Actuarially Determined Contribution	12,575	12,350	11,479	10,710	9,960	9,388	8,930	8,393	6,772	6,175
Contribution Deficiency (Excess)	(879)	(4,806)	(5,040)	(3,696)	(2,549)	(2,125)	(1,877)	(1,194)	(967)	(467)
Covered Payroll	1,081,841	1,142,375	1,052,657	1,001,204	914,368	824,855	828,978	793,634	719,812	660,875
Contributions as a Percentage of Covered Payroll	1.16%	1.08%	1.09%	1.07%	1.09%	1.14%	1.08%	1.06%	0.94%	0.93%

**North Dakota Public Employees Retirement System – Financial Section**  
**Notes to the Required Supplementary Information**  
**For the Years Ended June 30, 2017 and 2016**

**PERS**

Benefit Changes: There were no changes made in the plan provisions since the prior valuation

Changes of Assumptions: The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2017 actuarial valuation:

- The investment return assumption was lowered from 8.00 to 7.75 percent
- The price inflation assumption was lowered from 3.5 percent to 2.5 percent.
- The payroll growth assumption used in calculating the amortization of the unfunded liability contribution for the actuarial contribution rate was lowered from 4.5 percent to 3.75 percent
- The asset valuation method was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017

All other actuarial assumptions used in the July 1, 2017 valuation were based on the results of an experience study for the period July 1, 2009 to June 30, 2014.

**HPRS**

Benefit Changes: There were no changes made in the plan provisions since the prior valuation

Changes of Assumptions: The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2017 actuarial valuation:

- The investment return assumption was lowered from 8.00 to 7.75 percent
- The price inflation assumption was lowered from 3.5 percent to 2.5 percent.
- The payroll growth assumption used in calculating the amortization of the unfunded liability contribution for the actuarial contribution rate was lowered from 4.5 percent to 3.75 percent
- The benefit indexing assumption for inactive vested members was lowered from 4.0 percent to 3.0 percent
- The assumed rate of increase in the projected IRC 415 limit was lowered from 3.5 percent to 2.5 percent
- The asset valuation method was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017

All other actuarial assumptions used in the July 1, 2017 valuation were based on the results of an experience study for the period July 1, 2009 to June 30, 2014.

**North Dakota Public Employees Retirement System – Financial Section**  
**Notes to the Required Supplementary Information**  
**For the Years Ended June 30, 2017 and 2016**

**JSND**

Benefit Changes: There were no changes made in the plan provisions since the prior valuation

Changes of Assumptions: The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2017 actuarial valuation:

- The investment return assumption was lowered from 7.00 to 5.7 percent
- The price inflation assumption was lowered from 3.5 percent to 2.5 percent.
- The Cost of Living Adjustment assumption was lowered from 3.0 percent to 2.5 percent
- The asset valuation method was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017

All other actuarial assumptions used in the July 1, 2017 are the same as the last actuarial valuation as of July 1, 2016.

**RHIC**

Benefit Changes: There were no changes made in the plan provisions since the prior valuation

Changes of Assumptions: The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2017 actuarial valuation:

- The investment return assumption was lowered from 8.00 to 7.5 percent
- The price inflation assumption was lowered from 3.5 percent to 2.5 percent.
- The payroll growth assumption used in calculating the amortization of the unfunded liability contribution for the actuarial contribution rate was lowered from 4.5 percent to 3.75 percent
- The asset valuation method was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017

All other actuarial assumptions used in the July 1, 2017 valuation were based on the results of an experience study for the period July 1, 2009 to June 30, 2014.

**North Dakota Public Employees Retirement System – Financial Section  
Notes to the Required Supplementary Information  
For the Years Ended June 30, 2017 and 2016**

**Schedule of Employer Contributions**

Valuation date Actuarially determined contribution rates are calculated as of June 30, 12 months prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to establish “actuarially determined contribution” rates for PERS, HPRS, and RHIC:

Actuarial cost method Entry Age Normal Method. Entry Age is the age at the time the participant commenced employment. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary.

Amortization Method Level percent of payroll, Open Period

Remaining amortization period 20 years open, assuming 3.75% (3.25% for Judges) of payroll growth per annum

Asset valuation method 5-Year smoothed market

Methods and assumptions used to establish “actuarially determined contribution” rates for JSND:

Actuarial cost method Frozen Initial Liability Cost Method. The “annual contribution” under this method is the normal cost plus the payment required to amortize the unfunded initial actuarial accrued liability over a selected period of years. The normal cost is determined by calculating the total value of all future benefits, subtracting the outstanding balance (if any) of the unfunded initial actuarial accrued liability, subtracting the actuarial value of assets, and determining payments (not less than zero) that are a level percent of pay over the future working lifetime of all participants. In the absence of an unfunded initial actuarial accrued liability, the Frozen Initial Liability Actuarial Cost Method is the same as the Aggregate Cost Method. The plan has assets in excess of the present value of future benefits. Therefore, no contribution is being made.

Asset valuation method 5-Year smoothed market.

**North Dakota Public Employees Retirement System – Financial Section  
 Required Supplementary Information  
 Schedule of Investment Returns**

**Schedule of Investment Returns  
 For the Years Ended June 30**

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Public Employees Retirement	13.01%	0.49%	3.61%	16.29%	13.52%
Highway Patrolmen's Retirement Retirement Plan for Employees	12.93%	0.48%	3.66%	16.20%	13.38%
Job Service North Dakota	5.85%	5.14%	3.41%	13.46%	12.07%
Retiree Health Insurance Credit Fund	11.75.%	0.83%	-	-	-

This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

**North Dakota Public Employees Retirement System – Financial Section  
 Required Supplementary Information  
 Schedule Employer Contributions  
 For the Years Ended June 30**

**Retiree Health Implicit Subsidy Plan**

Year Ended June 30	Annual Required Contribution	Percentage Contributed
2011	7,295,000	0%
2012	7,854,425	0%
2013	8,212,947	0%
2014	3,053,866	0%
2015	2,848,396	0%
2016	686,429	0%
2017	552,665	0%



**North Dakota Public Employees Retirement System – Financial Section  
 Required Supplementary Information  
 Schedule of Funding Progress – RHIC  
 For the Years Ended June 30**

**Retiree Health Implicit Subsidy Plan  
 (Expressed in Millions)**

Actuarial Valuation Date June 30	Actuarial Accrued Liabilities (AAL) - Projected Unit Credit	Actuarial Value of Assets	Unfunded AAL (UAAL)	Ratio of Assets to AAL	Covered Payroll	UAAL as a Percentage of Covered Payroll
2009	53.7	-	53.7	0.0%	-	0.0%
2011	65.2	-	65.2	0.0%	-	0.0%
2013	33.8	-	33.8	0.0%	-	0.0%
2015	7.0	-	7.0	0.0%	-	0.0%

**North Dakota Public Employees Retirement System – Financial Section  
Supplemental Information  
Schedule of Investment Expenses – Fiduciary Funds  
For the Fiscal Year Ended June 30, 2017**

	<b>Public Employees Retirement System</b>	<b>Highway Patrolmen's Retirement System</b>	<b>Retiree Health Insurance Credit Fund</b>	<b>Defined Contribution Retirement Fund</b>	<b>Pretax Benefits Program</b>	<b>Deferred Compensation Program</b>	<b>Job Service Retirement Plan</b>
<b>Payments to State Investment Board:</b>							
Investment Fees	\$ 7,099,590	\$ 192,464	\$ 335,760	\$ -	\$ -	\$ -	\$ 285,579
Administrative Expenses	392,493	10,692	-	-	-	-	-
	<u>7,492,083</u>	<u>203,156</u>	<u>335,760</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>285,579</u>
<b>Payments to Providers:</b>							
Investment Fees (Net of Plan Servicing Credits)	-	-	-	6,822	-	-	-
	<u>-</u>	<u>-</u>	<u>-</u>	<u>6,822</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>Total Investment Expenses</b>	<u>\$ 7,492,083</u>	<u>\$ 203,156</u>	<u>\$ 335,760</u>	<u>\$ 6,822</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 285,579</u>

**North Dakota Public Employees Retirement System – Financial Section**  
**Supplemental Information**  
**Schedule of Investment Expenses – Fiduciary Funds**  
**For the Fiscal Year Ended June 30, 2016**

	<b>Public Employees Retirement System</b>	<b>Highway Patrolmen's Retirement System</b>	<b>Retiree Health Insurance Credit Fund</b>	<b>Defined Contribution Retirement Fund</b>	<b>Pretax Benefits Program</b>	<b>Deferred Compensation Program</b>	<b>Job Service Retirement Plan</b>
<b>Payments to State Investment Board:</b>							
Investment Fees	\$ 6,789,869	\$ 191,154	\$ 292,820	\$ -	\$ -	\$ -	\$ 166,226
Administrative Expenses	343,042	8,801	-	-	-	-	-
	<u>7,132,911</u>	<u>199,955</u>	<u>292,820</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>166,226</u>
<b>Payments to Providers:</b>							
Investment Fees (Net of Plan Servicing Credits)	-	-	-	11,925	-	-	-
<b>Total Investment Expenses</b>	<u>\$ 7,132,911</u>	<u>\$ 199,955</u>	<u>\$ 292,820</u>	<u>\$ 11,925</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 166,226</u>

**North Dakota Public Employees Retirement System – Financial Section**  
**Supplemental Information**  
**Schedule of Administrative Expenses – Fiduciary Funds**  
**For the Fiscal Year Ended June 30, 2017**

	Public Employees Retirement System	Highway Patrolmen's Retirement System	Retiree Health Insurance Credit Fund	Defined Contribution Retirement Fund	Pretax Benefits Program	Deferred Compensation Program	Job Service Retirement Plan
<b>Personnel Services:</b>							
Salaries	\$ 877,336	\$ 6,034	\$ 76,524	\$ 3,518	\$ 187,696	\$ 363,557	\$ 3,298
Social Security	64,091	441	5,562	256	13,642	26,561	240
Retirement	102,873	708	8,996	414	21,663	41,934	388
Insurance	195,691	1,346	15,927	732	37,318	65,788	686
<b>Total Personnel Services</b>	<b>1,239,991</b>	<b>8,529</b>	<b>107,009</b>	<b>4,920</b>	<b>260,319</b>	<b>497,840</b>	<b>4,612</b>
<b>Professional Services:</b>							
Actuarial	182,194	12,750	12,000	-	-	-	-
Audit	80,503	554	4,259	208	7,613	14,672	184
Data Processing	286,130	1,968	25,520	2,366	71,134	134,250	1,100
Consulting	75,629	520	2,850	21,596	1,823	38,285	620
Legal Counsel	20,708	142	2,256	1,066	3,661	7,129	743
Misc Outside Services	24,156	172	224,798	320	102,038	10,120	1,971
<b>Total Professional Services</b>	<b>669,320</b>	<b>16,106</b>	<b>271,683</b>	<b>25,556</b>	<b>186,269</b>	<b>204,456</b>	<b>4,618</b>
<b>Communication:</b>							
Printing	24,438	168	2,082	96	4,163	4,102	90
Postage	63,782	439	5,954	274	14,378	14,435	257
Telephone	8,838	61	708	33	1,563	2,418	31
<b>Total Communication</b>	<b>97,058</b>	<b>668</b>	<b>8,744</b>	<b>403</b>	<b>20,104</b>	<b>20,955</b>	<b>378</b>
<b>Rentals:</b>							
Equipment Rent	2,288	16	208	10	576	1,152	9
Office Rent	66,370	456	6,043	278	16,707	33,188	260
<b>Total Rentals</b>	<b>68,658</b>	<b>472</b>	<b>6,251</b>	<b>288</b>	<b>17,283</b>	<b>34,340</b>	<b>269</b>
<b>Miscellaneous:</b>							
Depreciation/Amortization	390,104	3,447	37,454	2,672	98,192	196,385	2,289
Dues & Prof Development	13,033	90	745	34	947	2,514	32
Insurance	382	3	35	2	96	192	2
Repairs and Maintenance	2,713	20	247	11	683	1,366	11
Supplies	113,211	772	10,336	572	28,298	56,955	442
Travel	12,773	88	716	33	180	2,294	31
<b>Total Miscellaneous</b>	<b>532,216</b>	<b>4,420</b>	<b>49,533</b>	<b>3,324</b>	<b>128,396</b>	<b>259,706</b>	<b>2,807</b>
<b>Total Administrative Expenses</b>	<b>\$ 2,607,243</b>	<b>\$ 30,195</b>	<b>\$ 443,220</b>	<b>\$ 34,491</b>	<b>\$ 612,371</b>	<b>\$ 1,017,297</b>	<b>\$ 12,684</b>

**North Dakota Public Employees Retirement System – Financial Section**  
**Supplemental Information**  
**Schedule of Administrative Expenses – Fiduciary Funds**  
**For the Fiscal Year Ended June 30, 2016**

	Public Employees Retirement System	Highway Patrolmen's Retirement System	Retiree Health Insurance Credit Fund	Defined Contribution Retirement Fund	Pretax Benefits Program	Deferred Compensation Program	Job Service Retirement Plan
<b>Personnel Services:</b>							
Salaries	\$ 821,333	\$ 5,842	\$ 71,268	\$ 3,072	\$ 174,231	\$ 354,495	\$ 4,010
Social Security	59,954	426	5,186	224	12,744	26,010	291
Retirement	97,184	691	8,318	359	19,992	40,488	468
Insurance	191,220	1,360	15,314	660	35,539	65,800	860
<b>Total Personnel Services</b>	<b>1,169,691</b>	<b>8,319</b>	<b>100,086</b>	<b>4,315</b>	<b>242,506</b>	<b>486,793</b>	<b>5,629</b>
<b>Professional Services:</b>							
Actuarial	262,795	14,650	13,700	1,622	-	-	19,500
Audit	39,626	282	3,609	155	9,994	19,954	199
Data Processing	131,495	935	11,288	1,137	28,627	52,184	636
Consulting	213,432	1,518	19,843	779	68,043	106,491	998
Legal Counsel	16,813	120	3,417	1,501	3,539	6,942	277
Misc Outside Services	28,546	204	214,758	107	104,613	14,859	1,447
<b>Total Professional Services</b>	<b>692,707</b>	<b>17,709</b>	<b>266,615</b>	<b>5,301</b>	<b>214,816</b>	<b>200,430</b>	<b>23,057</b>
<b>Communication:</b>							
Printing	15,248	108	1,910	48	1,877	1,795	67
Postage	56,794	404	5,513	357	9,543	9,548	270
Telephone	9,735	69	772	33	1,782	2,614	44
<b>Total Communication</b>	<b>81,777</b>	<b>581</b>	<b>8,195</b>	<b>438</b>	<b>13,202</b>	<b>13,957</b>	<b>381</b>
<b>Rentals:</b>							
Equipment Rent	2,614	18	238	12	659	1,316	13
Office Rent	67,090	477	6,423	262	16,751	33,208	335
<b>Total Rentals</b>	<b>69,704</b>	<b>495</b>	<b>6,661</b>	<b>274</b>	<b>17,410</b>	<b>34,524</b>	<b>348</b>
<b>Miscellaneous:</b>							
Depreciation/Amortization	384,151	3,337	36,912	2,649	96,704	193,408	2,264
Dues & Prof Development	14,184	101	796	34	870	2,226	40
Insurance	432	3	39	1	99	238	2
Miscellaneous	14,874	119	2,355	67	4,184	-	3
Repairs and Maintenance	2,699	19	246	11	681	1,359	13
Supplies	95,836	683	8,767	476	24,388	48,099	483
Travel	11,744	84	619	27	229	1,987	33
<b>Total Miscellaneous</b>	<b>523,920</b>	<b>4,346</b>	<b>49,734</b>	<b>3,265</b>	<b>127,155</b>	<b>247,317</b>	<b>2,838</b>
<b>Total Administrative Expenses</b>	<b>\$ 2,537,799</b>	<b>\$ 31,450</b>	<b>\$ 431,291</b>	<b>\$ 13,593</b>	<b>\$ 615,089</b>	<b>\$ 983,021</b>	<b>\$ 32,253</b>

**North Dakota Public Employees Retirement System – Financial Section**  
**Supplemental Information**  
**Schedule of Consultant Expenses – Fiduciary Funds**  
**For the Fiscal Year Ended June 30, 2017**

	Public Employees Retirement System	Highway Patrolmen's Retirement System	Retiree Health Insurance Credit Fund	Defined Contribution Retirement Fund	Pretax Benefits Program	Deferred Compensation Program	Job Service Retirement Plan
<b>Actuary Fees:</b>							
Gabriel Roeder Smith & Co	\$ 118,031	\$ 12,750	\$ 12,000	\$ -	\$ -	\$ -	\$ -
The Segal Company	64,163	-	-	-	-	-	-
<b>Audit/Accounting Fees:</b>							
CliftonLarsonAllen LLP	80,503	554	4,259	208	7,613	14,672	184
<b>Disability Consulting Fees:</b>							
Mid Dakota Clinic	9,000	-	-	-	-	-	-
<b>IT Consulting:</b>							
Sagitec Solution LLC	175,439	1,336	17,684	813	44,194	88,388	762
Agency MABU	18,784	-	-	-	4,696	9,392	-
<b>Miscellaneous Consulting Fees:</b>							
Gabriel Roeder Smith & Co	53,227	520	2,850	-	1,823	15,878	620
The Segal Company	10,168	-	-	21,596	-	22,407	-
Callan Associates, Inc.	3,234	-	-	-	-	-	-
Ice Miller, LLP	478	3	360	17	-	-	16
ND Attorney General	20,231	139	1,896	1,050	3,661	7,129	728
Totals	<u>\$ 553,258</u>	<u>\$ 15,302</u>	<u>\$ 39,049</u>	<u>\$ 23,684</u>	<u>\$ 61,987</u>	<u>\$ 157,866</u>	<u>\$ 2,310</u>

**North Dakota Public Employees Retirement System – Financial Section  
Supplemental Information  
Schedule of Consultant Expenses – Fiduciary Funds  
For the Fiscal Year Ended June 30, 2016**

	Public Employees Retirement System	Highway Patrolmen's Retirement System	Retiree Health Insurance Credit Fund	Defined Contribution Retirement Fund	Pretax Benefits Program	Deferred Compensation Program	Job Service Retirement Plan
<b>Actuary Fees:</b>							
The Segal Company	\$ 262,795	\$ 14,650	\$ 13,700	\$ 1,622	\$ -	\$ -	\$ 19,500
<b>Audit/Accounting Fees:</b>							
CliftonLarsonAllen LLP	39,626	282	3,609	155	9,994	19,954	199
<b>Disability Consulting Fees:</b>							
Mid Dakota Clinic	8,300	59	-	-	-	-	-
<b>IT Consulting:</b>							
Sagitec Solution LLC	183,572	1,412	18,073	779	46,329	92,509	998
Agency MABU	14,876	-	-	-	3,719	6,977	-
<b>Miscellaneous Consulting Fees:</b>							
The Segal Company	3,374	24	1,770	-	17,995	7,006	-
Callan Associates, Inc.	3,310	23	-	-	-	-	-
Ice Miller, LLP	522	4	286	12	-	-	25
ND Attorney General	16,291	116	3,131	1,489	3,539	6,942	251
Totals	<u>\$ 532,666</u>	<u>\$ 16,570</u>	<u>\$ 40,569</u>	<u>\$ 4,057</u>	<u>\$81,576</u>	<u>\$ 133,388</u>	<u>\$ 20,973</u>

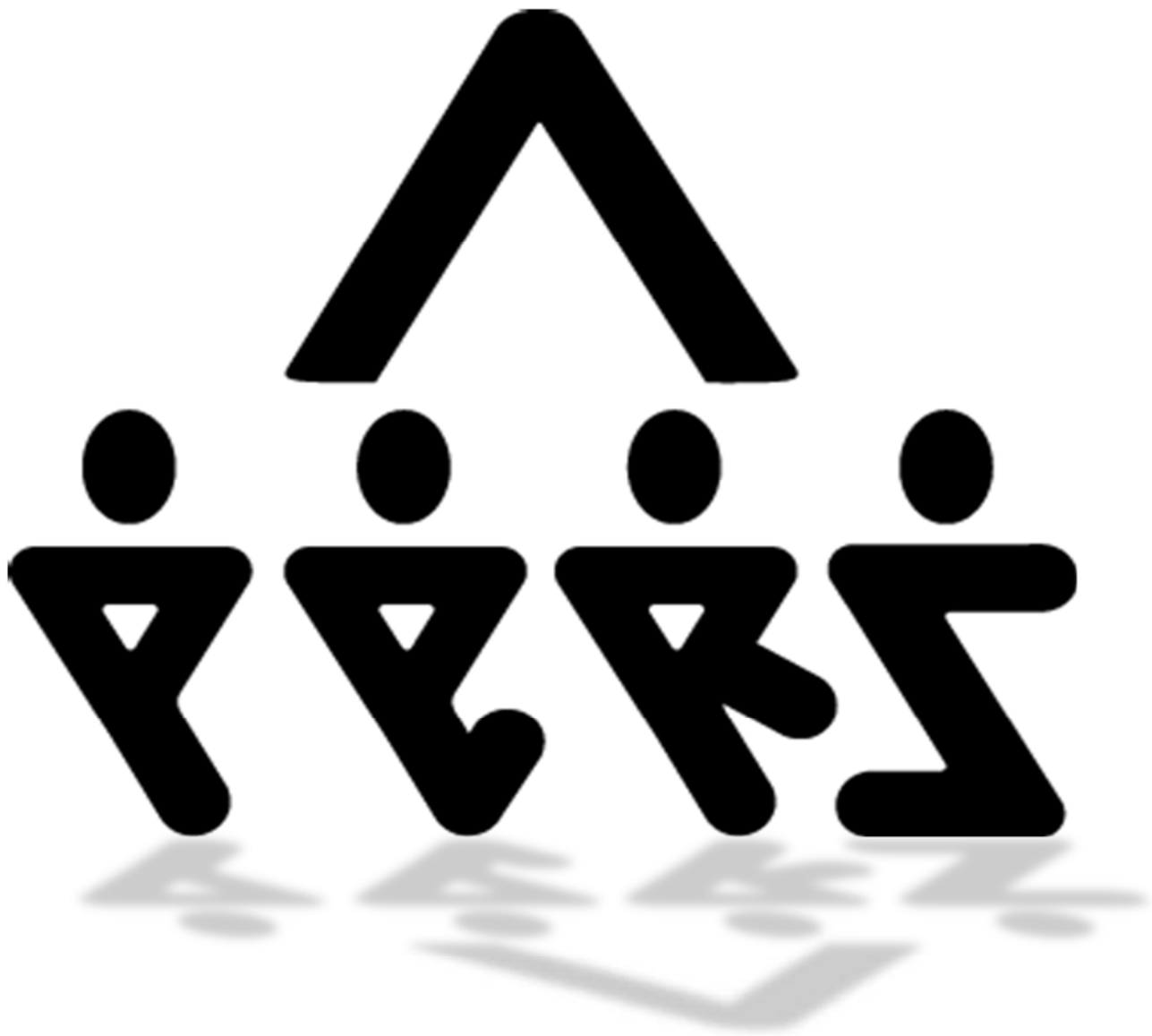
**North Dakota Public Employees Retirement System – Financial Section**  
**Statement of Appropriations**  
**June 30, 2017**

	<b>Approved 2015-2017</b>	<b>2015-2017 Appropriation</b>	<b>Adjusted 2015-2017</b>	<b>2016 Expenditures</b>	<b>2017 Expenditures</b>	<b>Unexpended</b>
ALL FUND TYPES						
Salaries and Wages	6,415,360	5,400	6,420,760	2,842,248	3,058,340	520,172
Accrued Leave payments	0	0	0	0	0	0
Operating Expenses	2,831,013	123,000	2,954,013	1,521,003	1,377,986	55,024
Contingency	250,000	(123,000)	127,000	0	0	127,000
	<u>9,496,373</u>	<u>5,400</u>	<u>9,501,773</u>	<u>4,363,251</u>	<u>4,436,326</u>	<u>702,196</u>

**Reconciliation of Administrative Expenses to Appropriated Expenditures**

Administrative expenses as reflected in the financial statements	<b>2016</b>	<b>2017</b>
Pension trust funds	4,644,496	4,757,501
Enterprise funds - Group Insurance	336,704,934	334,430,858
Total administrative expenses	<u>341,349,430</u>	<u>339,188,359</u>
Adjustments:		
Change in accrued compensated absences	(33,795)	(16,649)
Change in prepaid expenses	(690)	(53)
Professional Fees, premiums and benefits paid pursuant to NDCC54-52-04(6)	(335,943,986)	(333,710,166)
Miscellaneous income reclassified to miscellaneous expense	1,932	0
Amortization Expense	(1,009,537)	(1,025,120)
Contribution/premium over & short	(103)	(45)
	<u>4,363,251</u>	<u>4,436,326</u>





**INVESTMENT SECTION**

# North Dakota Public Employees Retirement System – Investment Section Report on Investment Activity



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November 20, 2017

Board of Trustees  
Members of the System

This report is a summary of the investment portfolios managed by the State Investment Board (SIB) and market environment for the fiscal year ended June 30, 2017.

### *Introduction*

For the fiscal year ended June 30, 2017, the North Dakota Public Employees Retirement System (PERS) investment portfolio experienced a net total return of 13.05%. The Job Service Pension Plan experienced a net total return of 5.63% for the same time period, while the Retiree Health Insurance Credit Fund returned 11.81% net of fees. The investment return calculations were prepared using a monthly time-weighted rate of return methodology based upon fair values and are subject to independent review.

### *Economic Overview as of June 30, 2017*

Investor angst over the unexpected Brexit vote was short lived and a “risk on” environment returned to the market in July, 2016. Highly unusual election antics and continued geopolitical concerns on a number of fronts did not dampen investors’ appetite or their quest for yield. This environment prevailed through December, shaped by the U.S. presidential election and the expectation of decreased regulation and lower taxes under the Trump administration. The first quarter of calendar-year 2017 was a period of shifting sentiment. The “Trump Trade” and market momentum in general, died on March 21 when doubts surfaced over the viability of the Republicans’ health care reform bill. The bill was withdrawn on the 29<sup>th</sup>. While the U.S. entered its 96<sup>th</sup> month of expansion in the second quarter of calendar-year 2017, economic data was uninspiring. While growth appeared to have moderated, the Fed expressed their belief in continued upward trajectory.

The U.S. Federal Reserve was active during the 2017 fiscal year. After leaving rates unchanged at their September meeting, the number of dissenting votes from Federal Reserve officials marked a shift in sentiment. At the December meeting, the Federal Open Market Committee (FOMC) moved the target overnight rate to 0.50%-0.75%, marking the first rate hike since December 2015. The FOMC then followed suit at their March meeting, increasing the target rate by 25 basis points to 0.75%-1.00%. The FOMC cited “solid and strengthening” workforce figures as well as moderate growth and inflation as justification for the rate increase. Finally, while growth appeared to have moderated, the Fed raised the Fed Funds rate to 1.00%-1.25% at their June meeting, the third rate hike of the fiscal year.

After declining GDP growth through the first three quarters of the fiscal year, the U.S. economy grew a bit faster than previously estimated in the second quarter of calendar-year 2017. Gross domestic product increased at a 3.1% annualized rate for the period. The upward revision from the original 3.0% reading reflected a slightly faster pace of inventory investment. The U.S. managed to outpace the euro zone’s GDP growth of 2.3% (annualized), the best in two years.

In the euro zone, fears around Brexit faded though economic growth remained weak through the third quarter of calendar-year 2016. Late in the quarter, the Bank of Japan (BOJ) announced a shift in policy. While maintaining asset purchases, the BOJ added a new tool to its quantitative easing kit – “yield curve control.” Concerns over euro zone stability briefly reentered the spotlight in December as Italy’s prime minister lost a key referendum vote causing him to resign. Japan and the euro zone began calendar-year 2017 on a positive note. The BOJ lifted its growth forecasts and held off initiating additional monetary easing. News from the euro zone was less consistent.

Year-over-year inflation reached 1.80% in February; however momentum stalled in March when year-over-year inflation fell 0.50%. The ECB quickly pledged to continue their current stimulus measures. On March 29, UK Prime Minister Theresa May signed a letter invoking Article 50, kicking off a two year period of Brexit negotiations. Finally, at their June meeting, the ECB kept rates unchanged and confirmed that net asset purchases will run at least through December 2017. They cited better than expected GDP growth as well as falling unemployment.

*Domestic Equity Overview*

The fiscal year ended June 30, 2017, brought exceptionally strong returns across domestic equity markets. The S&P 1500 Index, a broad market indicator for the U.S. stock market, finished the period up 18.09%. The S&P 600, a gauge of small cap stock performance, outperformed its large cap peers by a large margin, though both provided impressive returns. The S&P 600 rose 22.47% while the S&P 500 returned 17.90%. During the year growth stocks outperformed value stocks with the Russell 3000 Growth Index advancing 20.72% versus a gain of 16.21% for the Russell 3000 Value Index.

*International Equity Overview*

Developed international equity returns, as represented by the MSCI EAFE Index, rebounded during fiscal year 2017 after a poor 2016. The index returned 20.27%, outpacing its -10.16% performance in the prior fiscal year. Value fared better than growth in the international developed equity space. For the trailing 12-months ended June 30, 2017, the MSCI EAFE Value Index increased 25.01% while the MSCI EAFE Growth Index rose a respectable 15.70%. Emerging market equity returns also performed well for the fiscal year. The MSCI Emerging Markets Index returned 23.75% for the fiscal year ended June 30, 2017, after losing 12.05% for the previous fiscal year ended June 30, 2016. Overall, international stock markets performed well during the period.

*Private Equity Overview*

Private equity boomed in fiscal year 2017 as institutional investors placed significant capital into new programs. According to the Dow Jones Private Equity Analyst service, 1,128 new partnerships were formed raising \$322 billion in commitments during the past 12 months. Compared to fiscal year 2016, this is an increase in both the total number of new partnerships (677) and dollars invested (\$269 billion). Due to the nature of private equity performance measurement, relative comparisons of fund performance with benchmarks are inherently ambiguous.

*Domestic Fixed Income Overview*

The U.S. bond market, as measured by the Bloomberg Aggregate Bond Index, fell 0.31% in fiscal year 2017. The Fed increased their target overnight rate three times during the period and rates rose across the curve. Consequently, the Bloomberg Government/Credit Index fell 0.41% over the 12-month period and the Bloomberg Government Long Index returned an understandable yet painful -6.96%. Credit oriented indexes however rallied during the period with the Bloomberg Credit and Bloomberg Corporate High Yield Indexes rising 1.84% and 12.70% respectively.

*International Fixed Income Overview*

International developed fixed income markets performed poorly in the fiscal year 2017. The Citi Non-U.S. World Government Hedged Bond Index fell 1.87%. The Citi Non-U.S. World Government Unhedged Bond Index lost 5.01% as the dollar strengthened. Sovereign yields in Europe rose, particularly on the long end, during the fiscal year. The Citi Euro Government Bond Index fell 0.75%. Emerging market countries, which have a credit perception similar to high yield, continued their 2016 performance through 2017; the JP Morgan Emerging Markets Bond Index Plus returned 3.75% over the 12-month period.

*Real Estate Overview*

The NCREIF Property Index, a measure of the domestic direct private real estate market, gained 6.97% during the 2017 fiscal year. The index was positive each of the four quarters, extending its winning streak to 30 straight quarters. The FTSE NAREIT Equity Index, a measure of the public real estate securities market, fell 1.70% after an exceptionally strong performance in 2016 (+24.04%).

*Timber*

The timber sector experienced small increases to both its market value and acreage during fiscal year 2017. As of June 30, 2017, the total size of the NCREIF Timberland Property Index was \$25.4 billion, representing approximately 13.9 million acres of land. Of the total index, the South region remains the largest, representing \$17.2 billion in market value and 9.7 million acres of land. For the fiscal year ending June 30, 2017, the NCREIF Timberland Property Index rose moderately, returning 3.35%, consisting of a 0.70% appreciation return and a 2.65% income return. The Lake States was the best performing region gaining 8.10%.

*Infrastructure*

Approximately 4.67% of the North Dakota State Investment Board's pension pool assets, 4.89% of the insurance pool, and 2.81% of the Legacy Fund are invested in infrastructure investments spread among four strategies: the JP Morgan Asian Infrastructure fund; the JP Morgan Infrastructure Investments Fund, and the Grosvenor Customized Infrastructure Strategies funds. By definition, infrastructure assets are essential to the economic health and productivity of civilized society. They include the basic facilities, services, and installations needed for the functioning of a community, such as transit and communications systems; both potable and sewage water lines; and electricity access. They also include such public entities as schools, post offices, and incarceration facilities. Most of these facilities have traditionally been owned and regulated by municipalities and states. The private sector's participation has been limited, to varying degrees, to the areas of design, construction, and operation. Budget and fiscal pressures limit the ability of public authorities to maintain existing infrastructure, much less to build the new facilities required by a growing population. In response to these problems, many municipalities and states have sold or are contemplating the sale of their infrastructure assets to private investors.

Over the one-year period ended June 30, 2017, the SIB's infrastructure program provided net returns of 9.21% for the pension investment pool, 6.74% for the insurance investment pool and 5.85% for the Legacy Fund.

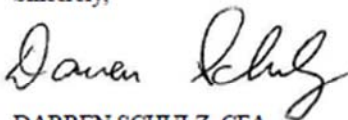
*Summary*

In a stark contrast to the prior two fiscal years, both of which produced subdued investment returns, fiscal year 2017 was marked by strong investment returns across a variety of risk assets. With respect to relative performance, the main PERS plan and the Retiree Health Insurance Credit Fund outperformed their respective policy benchmarks for the year, while the Job Service Plan Pension Plan underperformed. Performance was most favorably impacted by exposure to domestic and international equities, whereas international fixed income and timberland detracted from total fund performance.

While heartened by last year's performance, the North Dakota State Investment Board and Staff take a long-term perspective in its asset allocation, investment decisions, and performance evaluation. Over the past five years ending June 30, 2017, the main PERS Plan, Job Service Pension Plan and Retiree Health Credit Fund returned 9.16%, 7.85%, and 8.80%, respectively; and over the past seven years, which most closely approximates the most recent market cycle, 9.63%, 8.34 and 9.62%, respectively.

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

Sincerely,



DARREN SCHULZ, CFA  
Deputy Chief Investment Officer



DAVID HUNTER  
Executive Director/Chief Investment Officer

## **North Dakota Public Employees Retirement System – Investment Section Investment Policies**

By state law, PERS and HPRS assets are invested by the North Dakota State Investment Board (SIB). This change became effective July 1, 1989, with the primary purpose being to achieve cost savings through pooling of assets for investment. The System also contracts with the SIB to invest the assets of the Job Service Retirement Plan and the Retiree Health Insurance Credit Plan (RHIC).

State law requires that the SIB apply the prudent investor rule when investing funds under its supervision. The “prudent investor rule” means fund fiduciaries shall exercise the judgment and care, similar to that of an institutional investor who exercises ordinary prudence, discretion, and intelligence when managing the assets of large investments entrusted to it. The funds belonging to the System must be invested exclusively for the benefit of the members and the beneficiaries in accordance with the System’s investment goals and objectives.

The Retirement Board is responsible for establishing policies on investment goals and objectives and asset allocation, which are to be viewed over the long term. The investment goals for PERS and HPRS are: to accumulate sufficient wealth through a diversified portfolio of investments which will enable the State of North Dakota to pay all current and future retirement benefits and expense obligations of the Fund and, to obtain investment returns in excess of that needed to allow for increases in a retiree’s annuity to maintain the purchasing power of their retirement benefit.

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

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

The investment performance objectives for the PERS, HPRS, Job Service and RHIC plans are:

- 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.
- 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.
- 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.

The investment goals for the Job Service Retirement Plan are:

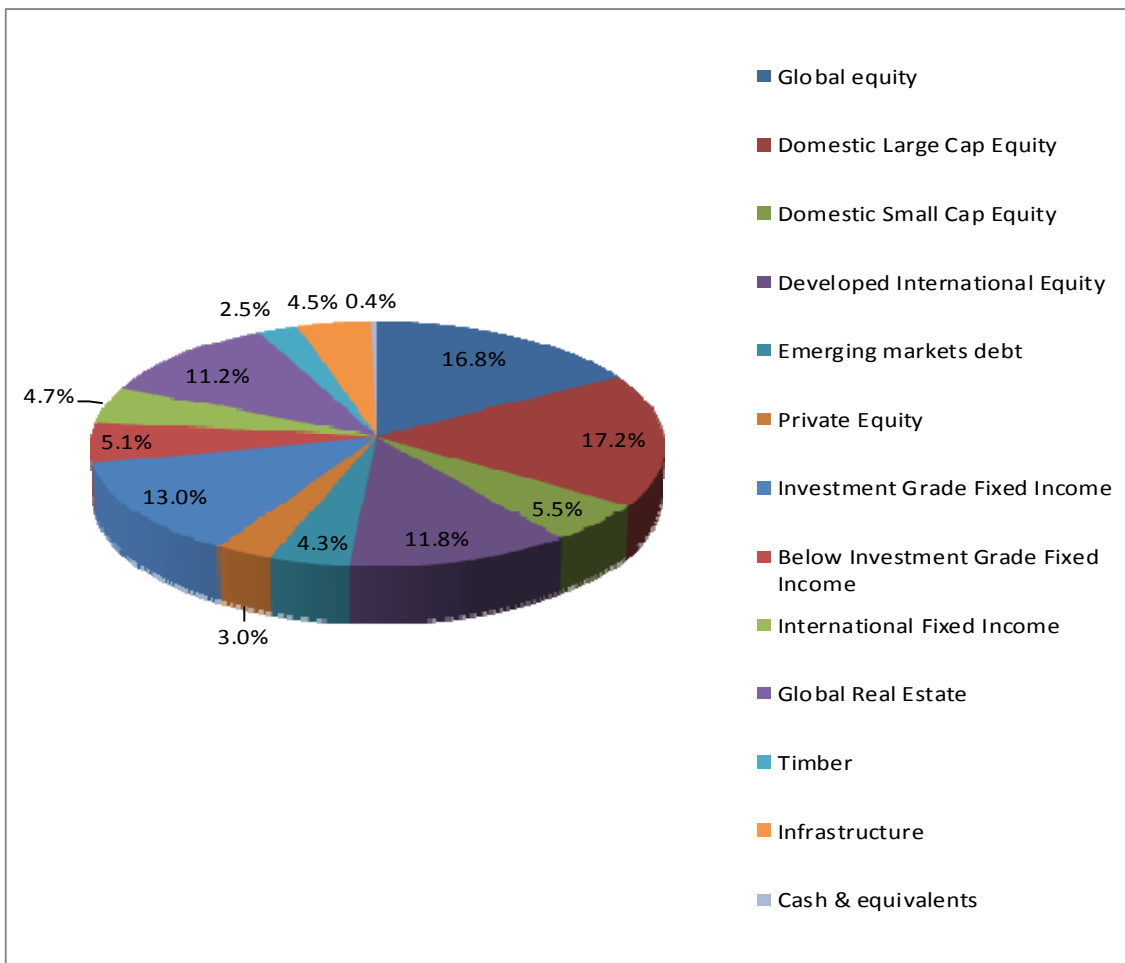
- To maintain a level of surplus sufficient to eliminate the need for future contributions.
- To achieve a rate of return which exceeds the rate of inflation, as measured by the Consumer Price Index, by 3.0 percentage points per year (based on current actuarial assumptions of 7.0% return and 2-3% inflation), over a complete market cycle.
- To maximize the Plan’s surplus to increase future benefit payments as a secondary objective.

The investment goals for the Retiree Health Insurance Credit Plan are:

- To accumulate sufficient wealth through a diversified portfolio of investments which will enable the State of North Dakota to pay all current and future retirement benefits and expense obligations of the fund.
- To obtain an investment return in excess of that needed to allow for increases in a retiree’s credit to maintain the purchasing power of their benefit.

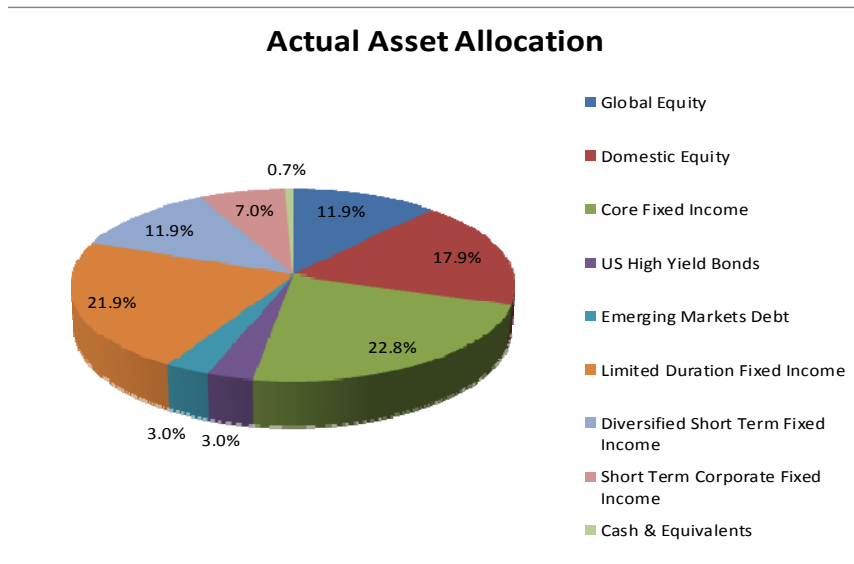
The SIB is responsible for carrying out the Retirement Board’s investment goals, objectives and policies; implementing the asset allocation plan submitted by the System, maintaining a separate accounting and preparing periodic investment performance reports for the System funds under their authority. The System’s assets may be pooled with other funds, at the discretion of the SIB.

## Public Employees and Highway Patrolmen's Retirement Systems Asset Allocation - June 30, 2017



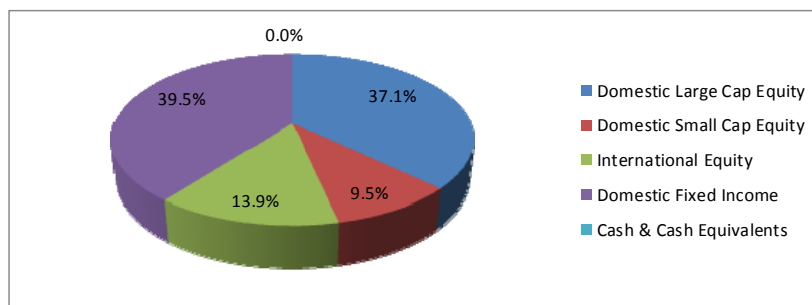
<u>Asset Class</u>	<u>Market Value</u>	<u>Actual %</u>	<u>Policy %</u>
Global equity	\$ 467,657,737	16.8%	16.0%
Domestic Large Cap Equity	478,681,027	17.2%	15.8%
Domestic Small Cap Equity	152,060,188	5.5%	4.8%
Developed International Equity	328,800,507	11.8%	11.0%
Emerging markets debt	118,125,957	4.3%	3.4%
Private Equity	83,862,751	3.0%	7.0%
Investment Grade Fixed Income	360,546,399	13.0%	13.0%
Below Investment Grade Fixed Income	141,885,169	5.1%	5.0%
International Fixed Income	129,523,200	4.7%	5.0%
Global Real Estate	310,338,344	11.2%	11.0%
Timber	68,942,677	2.5%	3.0%
Infrastructure	125,153,701	4.5%	5.0%
Cash & equivalents	10,472,896	0.4%	0.0%
<b>Total</b>	<b>\$ 2,776,050,553</b>	<b>100.0%</b>	<b>100.0%</b>

## Job Service Retirement Plan Asset Allocation - June 30, 2017



<u>Asset Class</u>	<u>Market Value</u>	<u>Actual %</u>	<u>Policy %</u>
Global Equity	\$ 11,590,995	11.9%	12.0%
Domestic Equity	17,417,741	17.9%	18.0%
Core Fixed Income	22,221,044	22.8%	23.0%
US High Yield Bonds	2,914,010	3.0%	3.0%
Emerging Markets Debt	2,891,558	3.0%	3.0%
Limited Duration Fixed Income	21,274,145	21.9%	22.0%
Diversified Short Term Fixed Income	11,590,995	11.9%	12.0%
Short Term Corporate Fixed Income	6,768,894	7.0%	7.0%
Cash & Equivalents	663,259	0.7%	0.0%
<b>Total</b>	<b>\$ 97,332,641</b>	<b>100.0%</b>	<b>100.0%</b>

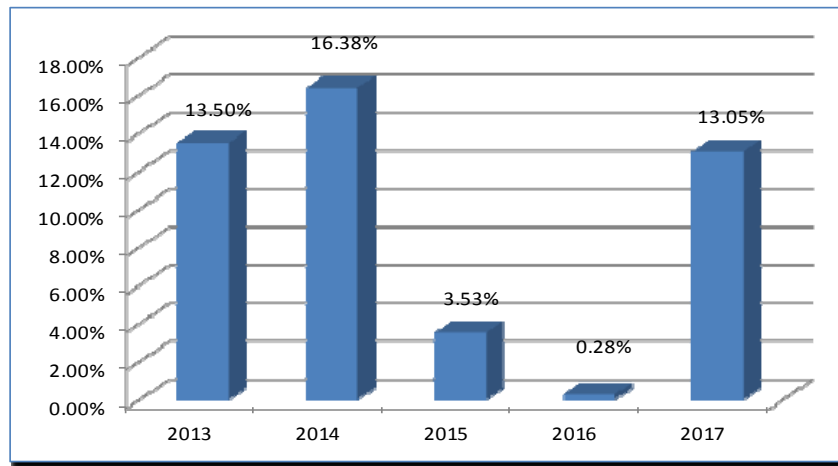
## Retiree Health Insurance Credit Program Asset Allocation - June 30, 2017



<u>Asset Class</u>	<u>Market Value</u>	<u>Actual %</u>	<u>Policy %</u>
Domestic Large Cap Equity	\$ 43,067,596	37.1%	37.0%
Domestic Small Cap Equity	11,018,083	9.5%	9.0%
International Equity	16,128,519	13.9%	14.0%
Domestic Fixed Income	45,921,115	39.5%	40.0%
Cash & Cash Equivalents	15,612	0.0%	0.0%
<b>Total</b>	<b>\$ 116,150,925</b>	<b>100.0%</b>	<b>100.0%</b>

**North Dakota Public Employees Retirement System – Investment Section  
Investment Results**

**Public Employees and Highway Patrolmen's  
Retirement Systems Investment Results**



**Public Employees and Highway Patrolmen's Retirement Systems (PERS)  
Schedule of Investment Results<sup>(1)</sup>  
For the Five Years Ended June 30, 2017**

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>3 Year</u>	<u>5 Year</u>
Total Fund (PERS)	13.50%	16.38%	3.53%	0.28%	13.05%	5.49%	9.16%
CPI	1.75%	2.04%	-0.38%	0.64%	1.50%	0.58%	1.11%
Global Equity <sup>(2)</sup>	17.06%	23.25%	4.67%	-7.27%	20.57%	5.10%	10.61%
MSCI World	18.58%	24.05%	1.43%	-2.78%	18.20%	5.24%	11.39%
Large Cap Domestic Equities	23.13%	25.21%	9.48%	4.52%	16.20%	9.90%	15.31%
Russell 1000	21.24%	25.35%	7.37%	2.93%	18.03%	9.26%	14.67%
Small Cap Domestic Equities	26.86%	24.73%	5.77%	-7.04%	20.08%	5.62%	13.17%
Russell 2000	24.21%	23.64%	6.49%	-6.73%	24.60%	7.36%	13.70%
Developed International Equities	20.94%	26.19%	-3.10%	-7.92%	21.05%	2.52%	10.31%
MSCI EAFE	18.62%	23.57%	-4.22%	-10.16%	20.27%	1.15%	8.69%
Emerging Markets Equities	4.55%	12.58%	-0.86%	-9.26%	21.55%	3.02%	4.98%
MSCI Emerging Markets Net	2.87%	14.31%	-5.12%	-12.05%	23.75%	1.07%	3.96%
Private Equity <sup>(3)</sup>	6.69%	4.07%	-5.39%	-7.20%	11.12%	-0.82%	1.55%
Investment Grade Fixed Income	5.13%	5.64%	3.66%	5.00%	3.65%	4.06%	4.55%
Barclays Aggregate	-0.69%	4.37%	1.86%	6.00%	-0.32%	2.48%	2.21%
Below Investment Grade Fixed Income	14.10%	13.51%	2.53%	0.28%	12.86%	4.93%	8.21%
Barclays High Yield Corp 2% Issuer Cap	9.49%	11.72%	-0.39%	1.65%	12.69%	4.50%	6.90%
International Fixed Income	0.83%	8.58%	-9.37%	7.50%	0.79%	-0.74%	1.23%
BC Global Aggregate ex US	-3.40%	9.42%	-13.19%	11.24%	-3.80%	-2.43%	-0.36%
Global Real Estate	11.05%	16.77%	15.78%	11.34%	9.13%	11.88%	12.46%
NCREIF Total	10.72%	11.21%	12.98%	10.64%	6.97%	10.17%	10.49%
Timber <sup>(2)</sup>	0.58%	2.62%	3.94%	4.34%	-9.44%	-0.60%	0.27%
NCREIF Timber	9.37%	9.92%	10.02%	3.39%	3.35%	5.54%	7.16%
Infrastructure <sup>(2)</sup>	12.33%	9.50%	1.23%	2.88%	9.21%	4.21%	6.52%
CPI	1.75%	2.04%	-0.38%	0.64%	1.50%	0.58%	1.11%
Cash	0.10%	0.04%	0.07%	0.29%	0.74%	0.37%	0.25%
90 Day T-bills	0.11%	0.05%	0.02%	0.19%	0.49%	0.23%	0.17%

<sup>(1)</sup> The investment return calculations were prepared using a monthly time-weighted rate of return methodology based upon market values

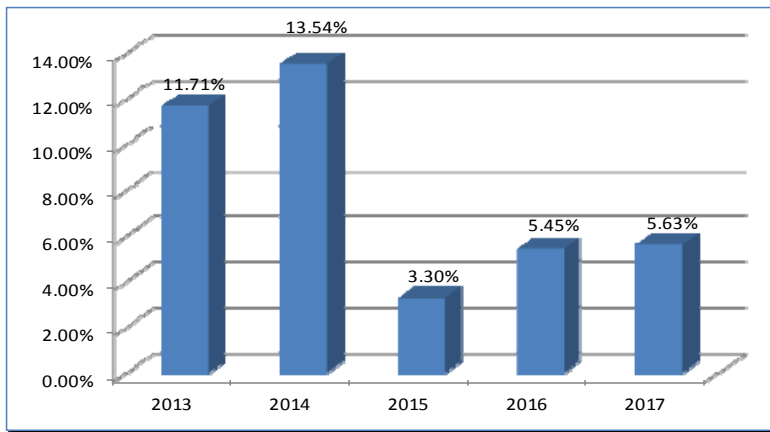
<sup>(2)</sup> This asset class has less than the indicated years under management due to the addition of this asset class during fiscal year 2012

<sup>(3)</sup> It has been determined that there is no benchmark that is an accurate reflection of the System's investments in this asset class. For total fund policy purposes, the actual asset class return is used.



**North Dakota Public Employees Retirement System – Investment Section  
Investment Results**

**Job Service Retirement Plan  
Investment Results**



**Job Service Retirement Plan  
Schedule of Investment Results<sup>(1)(4)</sup>  
For the Five Years Ended June 30, 2017**

	2013	2014	2015	2016	2017	Annualized	
						3 Year	5 Year
Total Fund	11.71%	13.54%	3.30%	5.45%	5.63%	4.79%	7.85%
CPI	1.75%	2.04%	-0.38%	0.64%	1.50%	0.58%	1.11%
Global Equity <sup>(2)</sup>	17.06%	23.25%	4.67%	6.41%	10.58%	7.30%	13.19%
MSCI World <sup>(4)</sup>	18.58%	24.05%	1.43%	-	-	-	-
Large Cap Domestic Equities	23.13%	25.21%	9.48%	-	-	-	-
Russell 1000	21.24%	25.35%	7.37%	-	-	-	-
Small Cap Domestic Equities	26.86%	24.73%	5.77%	-	-	-	-
Russell 2000	24.21%	23.64%	6.49%	-	-	-	-
Developed International Equities <sup>(3)</sup>	20.94%	26.19%	-	-	-	-	-
MSCI EAFE	18.62%	23.57%	-	-	-	-	-
Investment Grade Fixed Income	5.13%	5.64%	3.67%	-	-	-	-
Barclays Aggregate	-0.69%	4.37%	1.86%	-	-	-	-
Below Investment Grade Fixed Income	14.10%	13.51%	2.54%	-	-	-	-
Barclays High Yield Corp 2% Issuer Cap	9.49%	11.72%	-0.39%	-	-	-	-
International Fixed Income	0.83%	8.58%	-9.37%	-	-	-	-
BC Global Aggregate ex US	-3.40%	9.42%	-13.19%	-	-	-	-
Weighted Benchmark - Global Equity	-	-	-	-0.94%	18.86%	6.80%	12.68%
Global Fixed Income	-	-	-	4.87%	2.19%	3.03%	4.30%
Weighted Benchmark - Global Fixed Income	-	-	-	3.53%	0.98%	1.57%	2.16%
Cash	0.10%	0.04%	0.06%	0.29%	0.75%	0.37%	0.25%
90 Day T-bills	0.11%	0.05%	0.02%	0.19%	0.49%	0.23%	0.17%

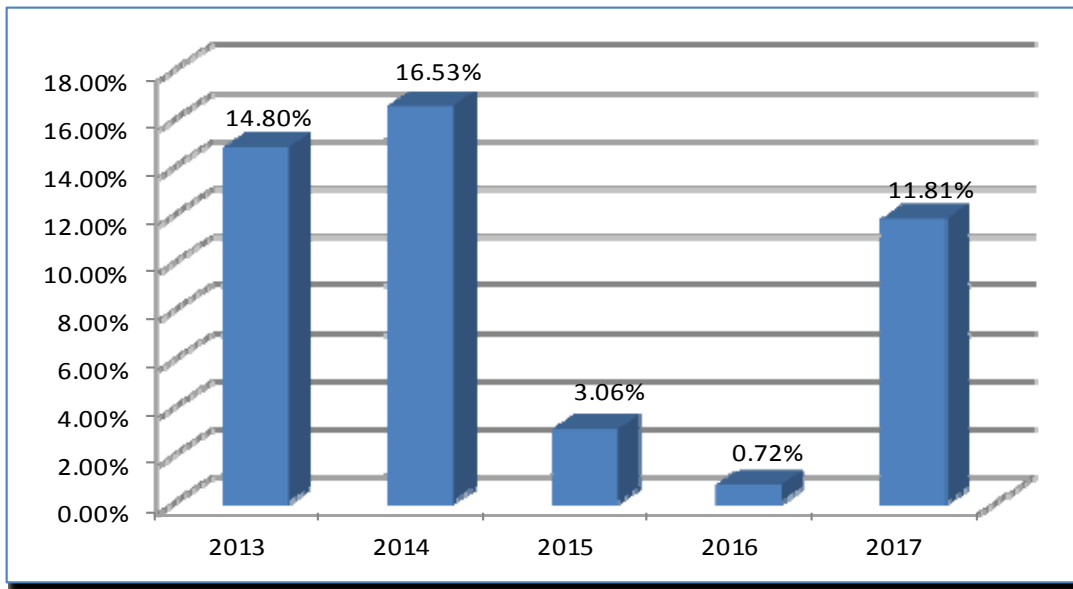
<sup>(1)</sup> The investment return calculations were prepared using a monthly time-weighted rate of return methodology based upon market values

<sup>(2)</sup> This asset class has less than the indicated years under management due to the addition of this asset class during fiscal year 2012

<sup>(3)</sup> Use of this asset class was discontinued during fiscal year 2015

<sup>(4)</sup> Mid year 2016 the investments were removed from pension pools and were directly managed

## Retiree Health Insurance Credit Program Investment Results



**Retiree Health Insurance Credit Plan  
Schedule of Investment Results<sup>(1)</sup>  
For the Five Years Ended June 30, 2017**

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	Annualized	
						<u>3 Year</u>	<u>5 Year</u>
Total Fund	14.80%	16.53%	3.06%	0.72%	11.81%	5.09%	8.80%
Large Cap Domestic Equity	22.50%	24.89%	7.38%	2.49%	17.50%	8.79%	14.21%
Russell 1000	21.24%	25.35%	7.37%	2.93%	18.03%	9.26%	14.67%
Small Cap Domestic Equity	24.63%	23.77%	5.99%	-5.67%	17.72%	5.43%	12.60%
Russell 2000	24.21%	23.64%	6.49%	-6.73%	24.60%	7.36%	13.70%
International Equity	20.87%	21.43%	-3.02%	-11.04%	21.47%	1.43%	8.04%
MSCI EAFE	18.62%	23.57%	-4.22%	-10.16%	20.27%	1.15%	8.69%
Core Plus Fixed Income	4.16%	5.73%	1.45%	4.90%	2.42%	2.77%	3.21%
Barclays Aggregate	-0.69%	4.37%	1.86%	6.00%	-0.32%	2.48%	2.21%

<sup>(1)</sup>The investment return calculations were prepared using a monthly time-weighted rate of return methodology based upon market values

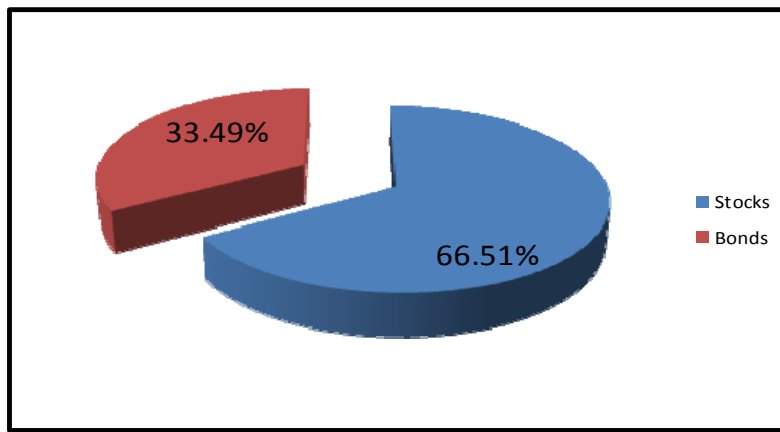
## Largest Holdings by Market Value at June 30, 2017

<b>Stocks</b>	<b>Fair Value</b>
Apple Incorporated	\$ 24,804,962
Microsoft Corporation	18,861,656
Amazon Company Incorporated	12,288,931
Facebook Incorporated	9,608,450
Allergan PLC	9,454,394
Morgan Stanley	8,883,121
Applied Materials Incorporated	8,585,137
JP Morgan Chase & Company	8,478,349
Visa Incorporated	8,319,777
United Health Group Incorporated	8,308,790

<b>Bonds</b>	<b>Fair Value</b>
FNMA Pool #AS9487 4% Due 05-01-2047	\$ 11,787,016
FHLMC Gold Single Family 3.5% 30 Years Settles August	6,867,462
FNMA Single Family Mortgage 3.5% 30 Years Settles September	6,750,982
GNMA II Jumbos 3.5% 30 Years Settles August	6,393,455
GNMA II Jumbos 5.4% 30 Years Settles August	5,743,339
FNMA Single Family Mortgage 3% 30 Years Settles September	4,692,254
GNMA Pool #AP0272 3.5% Due 09-15-2045	4,589,326
GNMA II Jumbos 4% 30 Years Settles August	4,330,881
United Kingdom (Government of) 1.25% Due 07-22-2018	4,033,931
Mexico (United Mexican States) 7.75% Notes Due 11-13-2042	4,015,512

*A complete list of all holdings is available upon request*

### Percentage of Largest Holdings



**North Dakota Public Employees Retirement System – Investment Section  
Schedule of Investment Fees**

Public Employees and Highway Patrolmen's Retirement System  
Schedule of Investment Fees  
For the Fiscal Year Ended June 30, 2017

<b>Investment Manager's Fees:</b>	<b><u>Assets Under Management</u></b>	<b><u>Fees</u></b>
Global Equity	\$468 Million	\$ 1,716,931
Domestic Large Cap Equity	\$479 Million	654,319
Domestic Small Cap Equity	\$152 Million	561,231
Developed International Equity	\$329 Million	969,488
Emerging Markets Equity	\$118 Million	898,494
Private Equity	\$84 Million	1,335,628
Investment Grade Fixed Income	\$361 Million	2,399,466
Below Investment Grade Fixed Income	\$142 Million	1,854,744
International Fixed Income	\$130 Million	452,558
Global Real Estate	\$310 Million	3,348,730
Timber	\$69 Million	485,605
Infrastructure	\$125 Million	917,728
Cash & Equivalents	\$10 Million	17,861
Total Investment Managers' Fees		<u>\$ 15,612,783</u>
<b>Other Investment Service Fees:</b>		
Custodian Fees	\$2.78 Billion	\$ 250,055
Investment Consultant Fees	\$2.78 Billion	111,406
SIB Administrative Fees	\$2.78 Billion	403,185
Total Investment Service Fees		<u>\$ 764,646</u>

**North Dakota Public Employees Retirement System – Investment Section  
Schedule of Investment Fees**

Job Service Retirement Plan  
Schedule of Investment Fees  
For the Fiscal Year Ended June 30, 2017

	<b>Assets Under Management</b>		<b>Fees</b>
Investment Management Fees	\$97 Million	\$	431,519
Custodian Fees	\$97 Million		10,608
SIB Contract Fees	\$97 Million		12,835
Total Investment Expense		<u>\$</u>	<u>454,962</u>

Retiree Health Insurance Credit Plan  
Schedule of Investment Fees  
For the Fiscal Year Ended June 30, 2017

<b>Other Investment Service Fees:</b>	<b>Assets Under Management</b>		<b>Fees</b>
Investment Management Fees	\$116 Million	\$	465,392
Custodian Fees	\$116 Million		8,209
SIB Contract Fees	\$116 Million		13,971
Total Investment Service Fees		<u>\$</u>	<u>487,572</u>

### **Defined Contribution Investments**

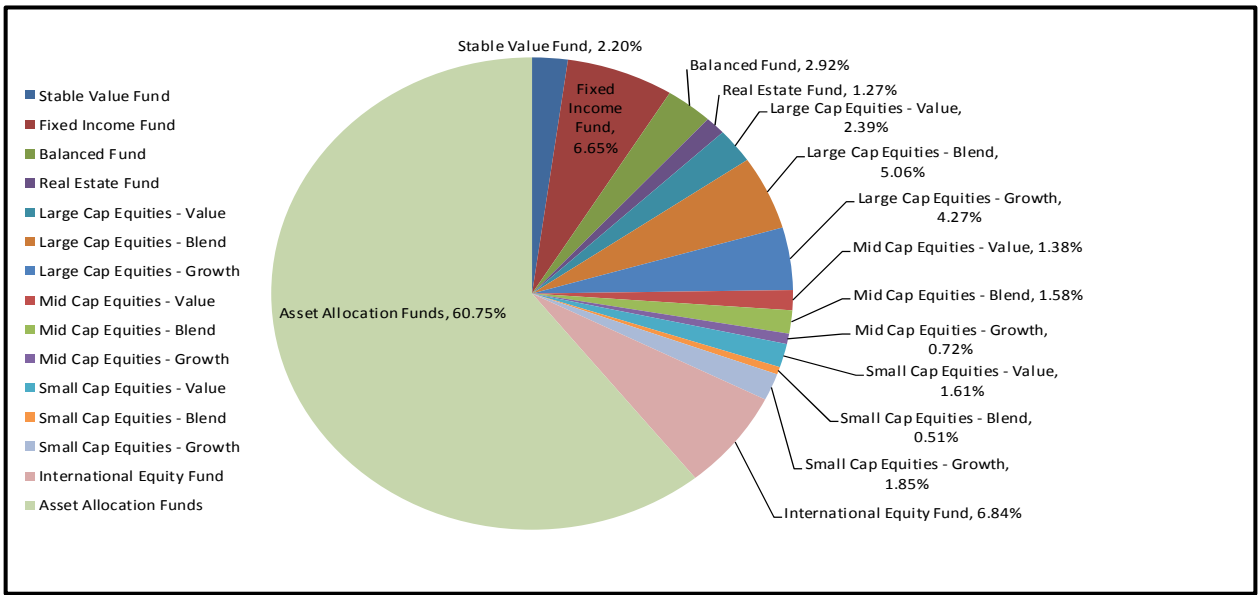
The Defined Contribution Retirement Plan (Plan) is a long-term retirement savings vehicle and is intended as a source of retirement income for eligible participants. Each participating member shall direct the investment of the individual's accumulated employer and employee contributions and earnings to one or more investment choices within available categories of investment provided by the Board. The available investment options cover a broad range of investment risk and rewards appropriate for this kind of retirement savings program. Participants bear the risk and reap the rewards of investment returns that result from the investment options that they select. TIAA is the record-keeper for the Plan.

The Board has adopted an investment policy that serves the following purposes:

- Establishes an investment program that will allow plan participants the opportunity to structure an investment strategy that meets their individual return objectives and risk tolerances
- Defines the investment categories offered by the Plan
- Establishes benchmarks and performance standards for each investment category to evaluate each fund's performance
- Establishes a procedure for reporting and evaluating the various funds and a methodology for monitoring their performance
- Defines the procedures for investment fund evaluation and formal fund review.

**Defined Contribution Retirement Plan  
 Investment Options - June 30, 2017**

<u>Investment Options</u>	<u>Market Value</u>	<u>Percent</u>
Stable Value Fund	\$ 265,474	2.20%
Fixed Income Fund	799,033	6.65%
Balanced Fund	352,008	2.92%
Real Estate Fund	153,478	1.27%
Large Cap Equities - Value	287,469	2.39%
Large Cap Equities - Blend	609,757	5.06%
Large Cap Equities - Growth	513,919	4.27%
Mid Cap Equities - Value	165,938	1.38%
Mid Cap Equities - Blend	190,476	1.58%
Mid Cap Equities - Growth	86,404	0.72%
Small Cap Equities - Value	193,760	1.61%
Small Cap Equities - Blend	61,971	0.51%
Small Cap Equities - Growth	222,994	1.85%
International Equity Fund	824,062	6.84%
Asset Allocation Funds	7,314,504	60.75%
<b>Total</b>	<b>\$ 12,041,247</b>	<b>100.00%</b>



**North Dakota Public Employees Retirement System – Investment Section  
Defined Contribution Schedule of Investment Results**

**Defined Contribution Retirement Plan - Schedule of Investment Results  
For the Five Years Ended June 30, 2017**

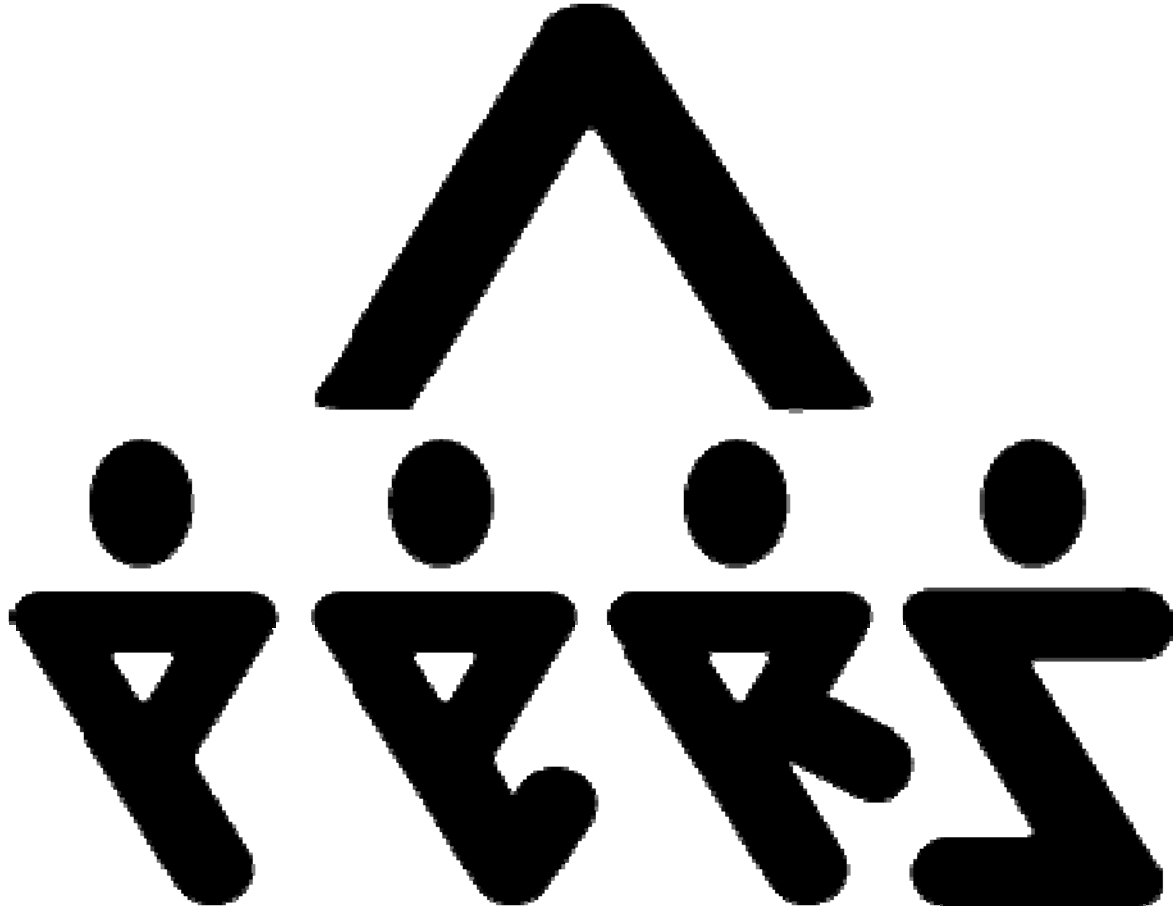
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>3-Year Annualized</u>	<u>5-Year Annualized</u>
<b>Stable Value Fund/Money Market Fund:</b>							
Vanguard Prime Money Market (2)	0.02%	0.02%	0.01%	0.13%	0.29%	0.19%	0.12%
Wells Fargo Stable Fund (2)	1.09%	0.70%	0.78%	0.89%	0.52%	0.89%	0.89%
3 Month T-Bill Index (2)	0.08%	0.04%	0.02%	0.41%	0.30%	0.20%	0.15%
<b>Fixed Income Fund:</b>							
PIMCO Real Return Admin (2)	-5.13%	5.27%	-3.29%	3.05%	1.45%	0.00%	-0.03%
PIMCO Total Return Bond Fund	0.95%	4.62%	1.04%	4.05%	3.33%	2.32%	2.50%
Barclays Aggregate Bond Index	-0.69%	4.37%	1.86%	6.00%	2.27%	2.48%	2.21%
Taxable Bond Fund Universe (2)	2.21%	5.47%	-0.58%	0.30%	3.68%	3.21%	3.94%
Prudential High Yield Z (2)	8.75%	11.63%	0.03%	2.42%	5.33%	4.85%	6.95%
ML High Yield Bond Fund Index (2)	9.55%	11.84%	-0.55%	1.71%	4.91%	4.48%	6.91%
High Yield Bond Universe (2)	9.04%	10.50%	-1.01%	2.92%	4.09%	3.02%	5.70%
Templeton Global Bond Adv (2)	7.95%	7.41%	-1.62%	-4.26%	3.29%	1.32%	3.82%
Citi World Govt Bond Index (2)	-4.50%	6.85%	-9.02%	11.26%	4.49%	-1.00%	-0.20%
World Bond Fund Universe (2)	0.15%	6.93%	-5.52%	4.77%	4.42%	0.31%	1.72%
<b>Real Estate Fund:</b>							
Cohen & Steers Realty Shares (2)	8.06%	14.14%	5.32%	21.31%	4.03%	8.58%	9.56%
FTSE NAREIT All Equity REITs Index (2)	10.21%	13.02%	4.33%	24.04%	2.70%	8.36%	9.52%
Real Estate Fund Universe (2)	7.75%	13.87%	5.05%	19.50%	2.89%	7.25%	8.49%
<b>Balanced Fund:</b>							
T Rowe Price Capital Appreciation (2)	17.89%	18.45%	8.47%	6.63%	8.98%	8.99%	12.57%
60% Large Cap Value Univ & 40% Taxable Bond Universe (2)	14.70%	15.59%	1.68%	0.07%	4.80%	5.12%	9.16%
60% Russell 1000 Value & 40% Agg Bond Index (2)	14.92%	16.03%	3.22%	4.14%	3.73%	5.43%	9.22%
<b>Large Cap Equities - Value:</b>							
Hartford Dividend & Growth (2)	21.49%	23.40%	4.26%	2.72%	6.89%	8.08%	13.61%
T Rowe Price Equity Income (2)	23.66%	20.66%	-0.34%	1.28%	5.57%	5.98%	12.18%
Russell 1000 Value Index	25.32%	22.33%	4.13%	2.90%	4.70%	7.40%	13.90%
Large Cap Value Fund Universe (2)	23.02%	23.81%	3.19%	-0.09%	5.55%	6.40%	12.64%
<b>Large Cap Equities - Blend:</b>							
Vanguard 500 Index Signal (2)	20.55%	24.55%	7.40%	3.75%	9.31%	9.58%	14.59%
Vanguard Dividend Growth Fund	19.65%	19.39%	6.19%	9.13%	9.94%	9.06%	13.13%
S&P 500 Index	20.60%	23.74%	7.42%	3.99%	9.34%	9.61%	14.63%
Large Cap Blend Fund Universe (2)	20.83%	23.83%	5.46%	-2.33%	8.65%	7.60%	13.35%
<b>Large Cap Equities - Growth:</b>							
Well's Fargo Adv Growth Adm (2)	14.40%	22.03%	9.71%	-4.89%	18.12%	7.82%	11.84%
Russell 3000 Growth Index	17.56%	26.75%	10.69%	1.88%	13.69%	10.83%	15.20%
Franklin Growth Adv (2)	16.27%	26.71%	10.94%	0.37%	13.77%	10.73%	14.87%
Russell 1000 Growth Index	17.07%	26.92%	10.56%	3.00%	14.00%	11.10%	15.30%
Large Cap Growth Fund Universe (2)	17.23%	26.38%	9.06%	-2.33%	14.14%	8.80%	13.87%
<b>Mid Cap Equities - Value:</b>							
RidgeWorth Mid Cap Value Equity I (2)	27.45%	27.99%	0.03%	-0.44%	6.68%	6.79%	14.71%
Russell Mid Cap Value	27.65%	25.21%	3.67%	3.25%	5.18%	7.46%	15.14%
Mid Cap Value Universe (2)	26.71%	27.76%	2.78%	-2.16%	4.58%	5.74%	13.37%
<b>Mid Cap Equities - Blend:</b>							
Columbia Mid Cap Index A (2)	24.54%	24.68%	5.92%	0.89%	5.71%	8.03%	14.38%
S&P Mid Cap 400	25.18%	25.24%	6.40%	1.33%	5.99%	8.53%	14.92%
ASTON/Fairpointe Mid Cap I (2)	34.07%	30.65%	-0.33%	-9.69%	5.23%	5.41%	15.46%
Wilshire 4500 Index	25.22%	24.42%	6.14%	-3.29%	7.14%	7.83%	14.91%
Mid Cap Blend Fund Universe (2)	25.06%	27.63%	8.51%	-4.33%	6.23%	5.51%	12.98%
<b>Mid Cap Equities - Growth:</b>							
Prudential Jennison Mid Cap Growth Z (2)	14.78%	21.52%	10.76%	-6.47%	11.74%	6.19%	10.80%
Russell Mid Cap Growth	22.88%	23.59%	9.45%	-2.14%	11.40%	7.83%	14.19%
Mid Cap Growth Fund Universe (2)	19.79%	26.04%	8.51%	-6.43%	12.37%	6.86%	12.72%



**North Dakota Public Employees Retirement System – Investment Section**  
**Defined Contribution Schedule of Investment Results**

**Defined Contribution Retirement Plan - Schedule of Investment Results**  
**For the Five Years Ended June 30, 2017**

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>3-Year Annualized</u>	<u>5-Year Annualized</u>
<b>Small Cap Equities - Value:</b>							
Allianz NFJ Small Cap Value	22.30%	24.55%	-3.63%	-5.11%	2.70%	3.58%	11.10%
Russell 2000 Value Index	24.76%	23.23%	0.78%	-2.58%	0.54%	7.02%	13.39%
Small Value Fund Universe (2)	25.62%	22.54%	-0.18%	-4.30%	0.52%	5.18%	12.47%
<b>Small Cap Equities - Blend:</b>							
Parnassus Small Cap (2) (Fund Replaced During FY15)	17.52%	20.99%	N/A	N/A	N/A	N/A	N/A
DFA US Small Cap (3)	N/A	N/A	5.76%	-4.05%	1.91%	7.25%	14.61%
Russell 2000 Index (2)	24.21%	23.64%	6.49%	-6.73%	4.99%	7.36%	13.70%
Small Blend Fund Universe (2)	24.56%	23.48%	2.69%	-5.78%	3.24%	5.70%	12.75%
<b>Small Cap Equities - Growth:</b>							
Brown Capital Mgmt Small Co Inv (2)	23.89%	27.08%	10.83%	3.25%	17.78%	12.89%	17.77%
Russell 2000 Growth Index	23.67%	22.04%	12.34%	-10.80%	10.00%	7.60%	14.00%
Small Growth Fund Universe (2)	22.25%	24.73%	8.61%	-9.86%	10.15%	6.67%	12.81%
<b>International Equity Funds</b>							
Mutual Global Discovery Z (2)	19.67%	20.95%	7.42%	-5.73%	6.68%	4.85%	10.78%
Vanguard Total International Stock Index Inv (2)	13.58%	22.44%	-4.60%	-9.11%	14.79%	1.35%	7.68%
MSCI EAFE	18.62%	23.16%	-4.19%	-10.24%	13.81%	1.15%	8.69%
International Stock Fund Universe	14.89%	20.11%	-2.17%	-4.17%	14.45%	1.18%	7.81%
Oppenheimer Developing Markets Y (2)	7.87%	19.75%	-10.41%	-10.13%	18.74%	-0.43%	4.98%
MSCI Emerging Markets Index (2)	2.87%	14.31%	-5.12%	-12.00%	18.43%	1.07%	3.96%
Diversified Emerging Markets Universe (2)	4.45%	14.05%	-6.98%	-9.89%	18.14%	0.48%	4.07%
<b>Asset Allocation Funds:</b>							
TIAA-CREF Lifecycle Ret Income (2)	7.64%	12.02%	2.23%	1.23%	5.98%	3.94%	6.25%
Income Benchmark (1)	8.88%	12.12%	2.19%	2.00%	5.08%	4.05%	6.17%
TIAA-CREF Lifecycle 2010 (2)	9.07%	13.43%	2.43%	0.88%	6.26%	4.12%	6.91%
2010 Benchmark (1)	10.08%	13.69%	2.37%	1.72%	5.34%	4.21%	6.51%
TIAA-CREF Lifecycle 2015 (2)	10.39%	14.66%	2.71%	0.44%	6.86%	4.39%	7.56%
2015 Benchmark (1)	11.22%	15.06%	2.48%	1.43%	5.78%	4.48%	7.09%
TIAA-CREF Lifecycle 2020 (2)	12.08%	16.20%	3.06%	-0.15%	7.52%	4.71%	8.38%
2020 Benchmark (1)	12.69%	16.83%	2.62%	0.91%	6.39%	4.84%	7.88%
TIAA-CREF Lifecycle 2025 (2)	13.86%	17.79%	3.27%	-0.91%	8.33%	5.03%	9.22%
2025 Benchmark (1)	14.17%	18.57%	2.77%	0.36%	7.10%	5.25%	8.83%
TIAA-CREF Lifecycle 2030 (2)	15.48%	19.33%	3.58%	-1.67%	9.14%	5.36%	10.02%
2030 Benchmark (1)	15.74%	19.82%	3.06%	-0.21%	7.82%	5.67%	9.77%
TIAA-CREF Lifecycle 2035 (2)	17.06%	20.74%	3.81%	-2.42%	9.91%	5.63%	10.75%
2035 Benchmark (1)	17.43%	21.42%	3.19%	-0.83%	8.52%	6.07%	10.69%
TIAA-CREF Lifecycle 2040 (2)	17.77%	21.72%	4.02%	-3.29%	10.58%	5.85%	11.20%
2040 Benchmark (1)	17.77%	22.37%	3.26%	-1.45%	9.19%	6.44%	11.59%
TIAA-CREF Lifecycle 2045 (2)	17.90%	21.52%	4.03%	-3.29%	11.00%	6.05%	11.31%
2045 Benchmark (1)	18.36%	22.38%	3.26%	-1.45%	9.53%	6.62%	12.03%
TIAA-CREF Lifecycle 2050 (2)	17.76%	21.63%	4.00%	-3.24%	10.96%	6.10%	11.34%
2050 Benchmark (1)	18.36%	22.38%	3.24%	-1.46%	9.63%	6.68%	12.17%
TIAA-CREF Lifecycle 2055 (2)	17.87%	21.53%	4.04%	-3.28%	11.08%	6.19%	11.40%
2055 Benchmark (1)	18.36%	22.38%	3.24%	-1.46%	9.73%	6.73%	12.30%
TIAA-CREF Lifecycle 2060 (2)	N/A	N/A	N/A	-3.18%	11.28%	N/A	N/A
2060 Benchmark (1)	N/A	N/A	3.24%	-1.46%	9.73%	6.73%	12.30%



**ACTUARIAL SECTION**



December 7, 2017

**Board Members**  
North Dakota Public Employees Retirement System  
Bismarck, North Dakota

**Members of the Board:**

At your request, we have performed an actuarial valuation which includes actuarial valuation results for funding purposes and separate actuarial valuation results for accounting purposes for the North Dakota Public Employees Retirement System ("NDPERS") as of July 1, 2017. The purpose of the funding actuarial valuation, which is performed annually, is to determine the funding status and actuarial employer contribution rate for NDPERS. The actuarial valuation was performed at the request of the Board and is intended for use by the Board and NDPERS and those designated by the Board and NDPERS. This report may be provided to parties other than the Board and NDPERS only in its entirety and only with the permission of the Board and NDPERS. GRS is not responsible for reliance upon this valuation for any other purpose, or by any other party.

#### **Actuarial Assumptions and Methods**

The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2017, actuarial valuation:

- The investment return assumption was lowered from 8.00 percent to 7.75 percent.
- The price inflation assumption was lowered from 3.50 percent to 2.50 percent.
- The payroll growth assumption used in calculating the amortization of the unfunded liability contribution for the actuarial contribution rate was lowered from 4.50 percent to 3.75 percent for Main System and Law Enforcement and from 4.00 percent to 3.25 percent for Judges.
- The asset valuation method used in the funding actuarial valuation was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017.

All other actuarial assumptions used in the actuarial valuation as of July 1, 2017, were based on an experience review for the five-year period ending July 1, 2014, which was performed by the prior actuary, and were first adopted for use commencing with the July 1, 2015, valuation.

The actuarial employer contribution rate is calculated using a 20-year open period, level percentage of payroll amortization method. The remaining amortization period will be reset to 20 years in each future actuarial valuation.

Board Members  
December 7, 2017  
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The actuarial assumptions and methods used, including the economic and demographic assumptions, the actuarial cost method and the asset valuation method, meet the Actuarial Standards of Practice issued by the Actuarial Standards Board for the funding of public sector pension plans and are set by the Board. Assumptions and methods required under GASB Statement 67 and 68 were used in the preparation of the accounting disclosures and schedules required by GASB 67 and 68.

#### **Benefit Provisions**

There were no changes since the previous valuation.

#### **Participant Data**

A total of 23,243 active members (including the Main System, Judges and Law Enforcement) were included in the actuarial valuation as of July 1, 2017. Between the 2016 and 2017 actuarial valuations, the number of active employees decreased by 173 members, or 0.7 percent. The average annual valuation pay increased by 2.2 percent, from \$44,779 to \$45,750 between the 2016 and 2017 actuarial valuations. There were 6,283 active members who were eligible for retirement (normal, early or Rule of 85) as of July 1, 2017.

The number of benefit recipients (excluding three members receiving benefits under the Special Prior Service Plan as of July 1, 2016) increased from 10,515 to 11,103, or 5.6 percent, since the last actuarial valuation. The average monthly benefit increased by 4.0 percent, from \$1,135 to \$1,181. During the year ending June 30, 2017, there were 904 members awarded a benefit.

There were 5,903 inactive members as of July 1, 2017, who were vested and elected to receive a deferred benefit. The average monthly deferred benefit is \$531. There were 5,751 inactive members as of July 1, 2017, who were not vested or elected to receive a refund of contributions.

#### **Actuarial Valuation Assets**

On a market value basis, NDPERS assets had an investment return of approximately 12.90 percent (net of investment expenses). On an actuarial value of asset basis, NDPERS assets had an investment return of approximately 8.98 percent on an actuarial value of assets basis, which compares to the prior year assumed rate of return of 8.00 percent.

The actuarial value of assets is currently 96.1 percent of the market value of assets. There is \$94,636,957 in net asset gains currently being deferred that will be phased into the actuarial value of assets over the next four years.



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**Statutory and Actuarial Employer Contributions**

The actuarially determined contribution rate is calculated as the normal cost contribution (to fund benefits accruing during the year) plus a contribution to amortize the unfunded liability. The unfunded liability contribution rate is calculated using a 20-year open period, level percentage of payroll amortization method. The remaining amortization period will be reset to 20 years in each future actuarial valuation. If employers contributed the actuarial contribution rate, the contribution rate would be expected to gradually decrease using a 20-year open amortization period as the funded ratio gradually increased. An open amortization period is expected to gradually improve the funded ratio. However, the funded ratio is not expected to reach 100 percent under this method (assuming no actuarial gains or losses) because the remaining unfunded liability at each future valuation date is re-amortized over a new 20-year period.

The contributions that are made by employers are based on fixed contribution rates that are set by statute (and not based on the actuarially determined rate). The statutory contribution rates and the actuarial contribution rates are as follows.

	<b>Employer Contribution Rates as a % of Projected Annual Compensation for Fiscal Year Ending June 30, 2018</b>	
	<b>Statutory Rate</b>	<b>Actuarial Rate</b>
Main System	7.12%	11.20%
Judges	17.52%	4.81%
Law Enforcement with prior Main System service	9.81%	8.25%
Law Enforcement without prior Main System service	7.93%	6.77%
Total PERS (Combined)	7.27%	11.05%

The portion of the statutory contribution that is applied toward the unfunded liability is the statutory contribution rate minus the employer normal cost rate. The unfunded liability contribution rate from the statutory contribution is significantly lower than the rate calculated using the 20-year level percentage of payroll amortization period. The unfunded liability contribution rate from the statutory contribution for the Main System rate is not high enough to amortize the unfunded liability over any period of time.

Because the statutory employer rate is higher than the actuarial employer rate (based on a 20-year amortization period) for the Judges and Law Enforcement Systems, the statutory employer rate amortizes the unfunded liability over a period shorter than 20 years.

We recommend an increase to the statutory contribution rate such that the unfunded liability is amortized over a period of no longer than 30 years. Based on the current actuarial valuation and the current actuarial assumptions and methods and benefit provisions, the current statutory employer contribution rate of 7.12% for the Main System is not expected to ever amortize the unfunded liability. The funded ratio is projected to ultimately decrease from the current funded ratio of about 70 percent. We recommend an increase to the Main System statutory employer contribution rate (to at least 9.62%) such that the



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unfunded liability is amortized over a period of no longer than 30 years and the funded ratio will increase toward 100%.

#### **Reliance on Others**

The actuarial valuation was based upon information furnished by the NDPERS Staff, concerning benefits provided by the North Dakota Public Employees Retirement System, financial transactions, plan provisions and census data for active members, terminated members, retirees and beneficiaries as of July 1, 2017. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the NDPERS Staff.

The trend data in the Financial Section and the schedules and other data in this Section are prepared by NDPERS Staff with our input. Data prior to fiscal year 2016 was prepared by NDPERS Staff and the prior actuary. Specifically these exhibits are:

- Actuarial Assumptions and Cost Method
- Changes in Actuarial Assumptions and Cost Method
- Active Member Valuation Data
- Retirees and Beneficiaries Added to and Removed from the Rolls
- Solvency Test
- Analysis of Financial Experience
- Schedule of Retired Members by Type of Benefit
- Schedule of Average Monthly Benefit Payments

#### **Accounting Schedules under GASB Statement Nos. 67 and 68**

The total pension liability (actuarial accrued liability) is based on a measurement date of July 1, 2017, under the Entry Age Normal actuarial cost method. A single discount rate of 6.44 percent was used to measure the total pension liability. The single discount rate was based on the expected rate of return on pension plan investments of 7.75 percent and the municipal bond rate of 3.56 percent. All other assumptions and methods used in the funding actuarial valuation for calculation of the actuarial accrued liabilities as of July 1, 2017, were used in the GASB 67/68 actuarial valuation for calculation of the total pension liability for fiscal year ending June 30, 2017.

The net pension liability is measured as the total pension liability, less the amount of the pension plan's fiduciary net position (market value of assets) as of June 30, 2017.



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**Certification**

To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the North Dakota Public Employees Retirement System as of the actuarial valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. Lance J. Weiss and Amy Williams are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

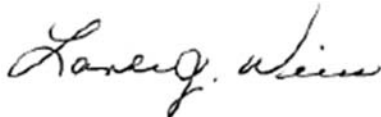
Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements in this report.

This report should not be relied on for any purpose other than the purpose stated.

The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



Lance J. Weiss, E.A., M.A.A.A., F.C.A.  
Senior Consultant and Team Leader



Amy Williams, A.S.A., M.A.A.A., F.C.A.  
Consultant

AW:nn



**North Dakota Public Employees Retirement System – Actuarial Section  
Public Employees Retirement System**

**Actuarial Assumptions and Cost Method – Public Employees Retirement System  
(Adopted July 1, 2017)**

**Mortality Tables:**

RP-2000 Combined Healthy Mortality table, sex-distinct, with rates set back 2 years for males and 3 years for females. RP 2000 Disabled Mortality table, sex-distinct, with rates set back 1 years for males (no setback for females), with rates multiplied by 125% for post-retirement disabled mortality. Mortality rates are projected from 2014 using the Social Security Administration (SSA) Intermediate Cost scale.

The underlying tables with generational projection to the ages of participants as of the measurement date reasonably reflect the mortality experience of the Plan as of the measurement date.

**Disability Incidence Rates**

Before Age 65:

Males: 20% of OASDI disability incidence rates

Females: 10% of OASDI disability incidence rates

Age 65 and Later : .25% per year

Sample rates are as follows:

<b>Age</b>	<b>Male</b>	<b>Female</b>
20	0.0120%	0.0060%
25	0.0171%	0.0085%
30	0.0220%	0.0110%
35	0.0295%	0.0147%
40	0.0440%	0.0220%
45	0.0719%	0.0360%
50	0.1212%	0.0606%
55	0.2018%	0.1009%
60	0.3254%	0.1627%
65	0.2500%	0.2500%

**Rates of Separation from Active Membership:**

<b>Service Beginning of Year</b>	<b>Service and Age-Based Rates For First Five Years of Service</b>					
	<b>Main System</b>			<b>Law Enforcement</b>		
	<b>Age</b>					
	<b>Under 30</b>	<b>30-39</b>	<b>40+</b>	<b>Under 30</b>	<b>30-39</b>	<b>40+</b>
0	22.00%	16.00%	12.00%	25.00%	20.00%	17.00%
1	18.00%	14.00%	10.00%	23.00%	17.00%	15.00%
2	16.00%	12.00%	10.00%	20.00%	15.00%	12.00%
3	14.00%	12.00%	8.00%	17.00%	13.00%	10.00%
4	14.00%	11.00%	7.00%	15.00%	11.00%	7.00%

<b>Age</b>	<b>Age-Based Rates Only After First Five Years of Service</b>	
	<b>Main System</b>	<b>Law Enforcement</b>
	20-24	8.80%
25-29	8.80%	8.80%
30-34	5.50%	5.50%
35-39	4.70%	4.70%
40-44	3.90%	3.90%
45-49	3.70%	3.70%
50-54	3.40%	3.40%
55-59	0.10%	0.10%
60+	0.20%	0.20%



**North Dakota Public Employees Retirement System – Actuarial Section  
Public Employees Retirement System**

No pre-retirement termination is assumed for Judges.

Vested participants that terminate are assumed to elect the option with the greater present value:

- 1) A refund of their accumulated contributions with interest or
- 2) A deferred benefit.

Withdrawal rates end upon eligibility for early retirement. Early retirement eligibility is as follows:

Main System: Earlier of 1) age 55 and 3 years of service, and 2) eligibility for Rule of 85. For members hired after 1/1/16, earlier of 1) age 55 and 3 years of service, and 2) eligibility for Rule of 90.

Judges: Earlier of 1) age 55 and 5 years of service, and 2) eligibility for Rule of 85.

Law Enforcement: Age 50 and 3 years of service.

**Refund of Employee Contributions**

Inactive vested members are assumed to elect a refund of employee contributions in lieu of a deferred pension benefit when it is more valuable than the deferred annuity

**Retirement Rates**

Age	Main System		Law Enforcement	Judges
	Reduced	Unreduced	Unreduced	Unreduced
50		30.00%	25.00%	
51		10.00%	25.00%	
52		10.00%	25.00%	
53		10.00%	25.00%	
54		10.00%	25.00%	
55	1.00%	10.00%	10.00%	10.00%
56	1.00%	8.00%	10.00%	10.00%
57	1.00%	8.00%	10.00%	10.00%
58	1.00%	8.00%	10.00%	10.00%
59	1.00%	8.00%	10.00%	10.00%
60	2.00%	8.00%	10.00%	10.00%
61	5.00%	15.00%	10.00%	10.00%
62	10.00%	30.00%	50.00%	10.00%
63	10.00%	30.00%	50.00%	10.00%
64	10.00%	20.00%	50.00%	10.00%
65		30.00%	50.00%	20.00%
66		20.00%	20.00%	20.00%
67		15.00%	20.00%	20.00%
68		15.00%	20.00%	20.00%
69		15.00%	20.00%	20.00%
70		15.00%	20.00%	20.00%
71		15.00%	20.00%	20.00%
72		15.00%	20.00%	20.00%
73		15.00%	20.00%	20.00%
74		15.00%	20.00%	20.00%
75+		100.00%	100.00%	100.00%

**North Dakota Public Employees Retirement System – Actuarial Section**  
**Public Employees Retirement System**

**Investment Rate of Return**

7.75% per annum, net of investment expenses

**Annual Administrative Expenses**

Prior year expenses, adjusted for inflation

Assumed expenses for 2017 are as follows:

Main System: \$2,568,029

Judges: \$12,094

Law Enforcement With Prior Main Service: \$38,513

Law Enforcement Without Prior Main Service: \$7,986

**Salary Scale**

<u>Service At Beginning of Year</u>	<u>State Employee</u>	<u>Non-State Employee</u>	<u>Law Enforcement</u>	<u>Judges</u>
0	12.00%	15.00%	20.00%	
1	9.50%	10.00%	20.00%	
2	7.25%	8.00%	20.00%	
3			10.00%	
4			10.00%	
<u>Age</u>				
Under 30	7.25%	10.00%	7.25%	4.00%
30-39	6.50%	7.50%	6.50%	4.00%
40-49	6.25%	6.75%	6.25%	4.00%
50-59	5.75%	6.50%	5.75%	4.00%
60+	5.00%	5.25%	5.00%	4.00%

**Inflation**

2.50% per annum

**Payroll Growth**

Main System and Law Enforcement: 3.75% per annum

Judges: 3.25% per annum

**Marital Status**

It is assumed that 75% of participants in the Main System and Law Enforcement and 100% of Judges have an eligible spouse at the time of retirement or pre-retirement death. The male spouse is assumed to be three years older than the female spouse

Spouses are assumed to be the opposite sex of the employees and retirees. The relatively low rate of same-sex spouses does not have a material actuarial impact on the actuarial valuation results

**Part Time Employees**

One full year of service is credited for each future year of service.

**Split Service**

Liabilities are held in both plans based on service in each plan, and are based on the actuarial assumptions of the plan in which they are currently active

# **North Dakota Public Employees Retirement System – Actuarial Section**

## **Public Employees Retirement System**

### **Actuarial Cost Method**

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using the Individual Entry Age Normal actuarial cost method having the following characteristics:

- The normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- Each annual normal cost is a constant percentage of the member's year by year projected covered pay

### **Actuarial Value of Assets**

The calculated value is determined by adjusting the market value of the assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last five years at a rate of 20% per year. The asset smoothing method was adopted by the Board for use beginning with July 1, 2017, actuarial valuation. Net deferred gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017.

### **Social Security Disability (for Judges' Disability Benefit Offset)**

Eligibility: 50% of disabled judges

Consumer Price Index Increase: 3.5% per annum

Wage Base Increases: 5.0% per annum

### **Workers' Compensation (for Judges' Disability Benefit Offset)**

None assumed for disability benefit offset

### **Account Balance Due to Vested Employer Contribution (PEP)**

Participation under Chapter 54/52.2: if not elected, none. If elected, 100% of active members of the Main System and Law Enforcement.

Contribution: Maximum allowed based on service at the beginning of the Plan year.

### **Benefit Election**

*Main System and Law Enforcement:*

- 50% of new retirements are assumed to elect the life annuity,
- 45% are assumed to elect the 50% joint and survivor annuity, and
- 5% are assumed to elect a Refund of Member Contributions

*Judges:*

- All participants elect the 50% joint and survivor annuity

### **Changes in Actuarial Assumptions and Methods - Public Employees Retirement System**

The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2017 valuation:

- The investment return assumption was lowered from 8% to 7.75%
- The price inflation assumption was lowered from 3.5% to 2.5%
- The payroll growth assumption used in calculating the amortization of the unfunded liability contribution for the actuarial contribution rate was lowered from 4.5% to 3.75%
- The asset valuation method was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017

**North Dakota Public Employees Retirement System – Actuarial Section  
Public Employees Retirement System**

**Summary of Plan Provisions - Public Employees Retirement System**

This section summarizes the major benefit provisions of the North Dakota Highway Public Employees Retirement System as included in the valuation. It is not intended to be, nor should it be, interpreted as a complete statement of all plan provisions. Benefits are set by statute. There are no provisions or policies with respect to automatic and ad hoc post-retirement benefit increases.

**1. Normal Service Retirement:**

*Main System and Judges:*

Eligibility: Attainment of age 65 with at least 10 years of eligible employment or with age plus service equal to at least 85 (Rule of 85)

For members enrolled after December 31, 2015, into the Main System, attainment of age 65 or at age 60 with age plus service equal to at least 90 (Rule of 90).

Benefit: 2% of final average salary multiplied by years of service for the Main System, and 3.50% of final

average salary for each of the first ten years of service, 2.80% for each of the next ten years

*Law Enforcement:*

Eligibility: Attainment of age 55 and three consecutive years of service, or if not former National Guard, at any age with age plus service equal to at least 85 (Rule of 85). Former National Guard is eligible for Rule of 85 on August 1, 2015.

Benefit: 2% of final average salary multiplied by years of service

**2. Early Service Retirement:**

*Main System*

Eligibility: Attainment of age 55 with three years of service

Benefit: The Normal Service Retirement Benefit as determined above. A benefit that begins before age 65 (or Rule of 85, if earlier) is reduced by one-half of one percent for each month before the earlier of age 65 or the age at which the Rule of 85 is met.

For members enrolled after December 31, 2015, into the Main System, a benefit that begins before age 65 (or Rule of 90, if earlier) is reduced by 2/3 of one percent for each month before the earlier of age 65 or the age at which the Rule of 90 is met.

*Judges*

Eligibility: Attainment of age 55 with five years of service

Benefit: The Normal Service Retirement Benefit as determined above. A benefit that begins before age 65 (or Rule of 85, if earlier) is reduced by one-half of one percent for each month before age 65 or the age at which the Rule of 85 is met.

*Law Enforcement:*

Eligibility: Attainment of age 50 with three years of service

Benefit: The Normal Service Retirement Benefit as determined above. A benefit that begins before age 55 (or Rule of 85, if earlier) is reduced by one-half of one percent for each month before the earlier of age 65 or the age at which the Rule of 85 is met.

**3. Disability Benefit:**

*Main System and Law Enforcement*

Eligibility: Six months of service and inability to engage in any substantial gainful activity

Benefit: 25% of the member's final average salary at disability minus workers' compensation benefits, with a minimum of \$100 per month.

**North Dakota Public Employees Retirement System – Actuarial Section**  
**Public Employees Retirement System**

*Judges*

Eligibility: Six months of service and inability to engage in any substantial gainful activity

Benefit: 70% of the member's final average salary at disability minus Social Security and Workers' Compensation benefits paid.

**4. Deferred Vested Retirement:**

*Main System*

Eligibility: Three years of service

Benefit: The Normal Service Retirement Benefit payable at age 65 or the Rule of 85, if earlier.  
Reduced early retirement benefits can be elected upon attainment of age 55.

*Law Enforcement*

Eligibility: Three years of service

Benefit: The Normal Service Retirement Benefit payable at age 55 or the Rule of 85, if earlier.  
Reduced early retirement benefits can be elected upon attainment of age 50.

*Judges*

Eligibility: Five years of service

Benefit: The Normal Service Retirement Benefit payable at age 65 or the Rule of 85, if earlier.  
Reduced early retirement benefits can be elected upon attainment of age 55.

**5. Pre-Retirement Death Benefits:**

*Main System and Law Enforcement*

Vested participants with a surviving spouse:

Eligibility: Three years of service

Benefit: One of the following options:

- Lump sum payout of member's accumulated contributions with interest
- 50% of the member's accrued benefit (not reduced on account of age) payable for the surviving spouse's lifetime
- Continuation portion of 100% joint and survivor annuity (only if participant was eligible for normal retirement).
- A partial lump sum payment in addition to the one of the annuity options above.

Non-vested members or vested members without a surviving spouse

Eligibility: Non-vested or no surviving spouse

Benefit: Lump sum payout of member's accumulated contributions with interest.

*Judges*

Vested participants with a surviving spouse:

Eligibility: Five years of service

Benefit: One of the following options:

- Lump sum payout of member's accumulated contributions with interest
- 100% of the member's accrued benefit (not reduced on account of age) payable for the surviving spouse's lifetime

**North Dakota Public Employees Retirement System – Actuarial Section**  
**Public Employees Retirement System**

Non-vested members or vested members without a surviving spouse

Eligibility: Non-vested or no surviving spouse

Benefit: Lump sum payout of member's accumulated contributions with interest.

**6. Refund of Member Contributions**

Paid to terminated non-vested members and terminated vested members who choose refund in lieu of a monthly retirement benefit.

**7. Accumulated Member Contributions**

Member contributions accumulate with interest at the following rates:

<u>Time Period</u>	<u>Per Annum Interest Rate</u>
Through June 30, 1981	5.00%
July 1, 1981 - June 30, 1986	6.00%
After June 30, 1986	0.5% less than the actuarial interest rate assumption

**8. Standard and Optional Forms of Payment:**

Standard form of payment:

*Main System and Law Enforcement:*

Monthly benefit for life with a refund to beneficiary at death of the remaining balance (if any) of accumulated member contributions

*Judges:*

Monthly benefit for life, with 50% payable to an eligible survivor

Optional forms of payment:

- Life annuity (for Judges).
- 50% joint and survivor annuity with pop-up (for Main System and Law Enforcement)
- 100% joint and survivor annuity with pop-up
- Ten-year certain and life annuity
- Twenty-year certain and life annuity
- Social Security level income annuity
- A partial lump sum payment in addition to one of the annuity options above
- An actuarially equivalent graduated benefit option with either a one percent or two percent increase to be applied the first day of January of each year. Not available for disability or early retirements or in combination with a partial lump sum option, a deferred normal retirement option, or a Social Security level income annuity.

**North Dakota Public Employees Retirement System – Actuarial Section  
Public Employees Retirement System**

**9. Final Average Salary:**

Average of the highest salary received by the member for any 36 months employed during the last 180 months of employment.

**10. Contributions:**

Contribution rates specified in the Century Code (except employer rate for Law Enforcement); differ between permanent full-time employees and part-time temporary employees. Rates are as follows:

	Rates Set by Statute		Rates determined by the Board of Retirement
	<u>Member</u>	<u>Employer</u>	<u>Employer</u>
Main System Full-Time Employees	7.00%	7.12%	
Main System Part-Time Employees	14.12%	0.00%	
Judges	8.00%	17.52%	
Law Enforcement with prior Main service	5.50%		9.81%
BCI Employees	6.00%		9.81%
National Guard members	5.50%		9.81%
Law Enforcement without prior Main service	5.50%		7.93%

Effective January 1, 2000: A member's account balance includes vested employer contributions equal to the member's contributions to the deferred compensation Plan under chapter 54-52.2. The vested employer contribution may not exceed:

- For months 1-12 of service credit, \$25 or 1% of the member's monthly salary, whichever is greater
- For months 13-24 of service credit, \$25 or 2% of the member's monthly salary, whichever is greater
- For months 25-36 of service credit, \$25 or 3% of the member's monthly salary, whichever is greater
- For service exceeding 36 months, \$25 or 4% of the member's monthly salary, whichever is greater

Vested employer contributions are credited to the member's account balance

**11. Rollovers**

The fund may accept rollovers from other qualified plans under ruled adopted by the Board for the purchase of additional service credit

**Changes in Plan Provisions Since the Previous Valuation:**

There have been no changes in plan provisions since the previous valuations as of July 1, 2016

**Solvency Test - PERS**  
**2007 – 2017**

A short-term solvency test is one means of checking a system’s progress under its funding program. In a short-term solvency test, the plan’s present assets (primarily cash and investments) are compared with:

- 1) Active member contributions on deposit
- 2) The liabilities for future benefits to present retired lives; and
- 3) The liabilities for service already rendered by active members.

In a system that has been following level percent of payroll financing, the liabilities for service already rendered by active members (liability 3) should be partially covered by the remainder of present assets. If the system continues using level cost financing, the funded portion of liability 3 will increase over time.

(Amounts in Millions)

Valuation Date	(1) Active Member Contributions	(2) Retirees, Beneficiaries, and Inactive Members	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	Portion (%) of Actuarial Accrued Liability By Assets		
					(1)	(2)	(3)
2007	\$1,609.2	\$433.7	\$611.3	\$1,503.1	100%	100%	81%
2008	1,737.6	468.1	655.7	1,609.8	100%	100%	79%
2009	1,901.2	507.6	728.1	1,617.1	100%	100%	57%
2010	2,208.4	600.5	822.2	1,621.7	100%	100%	25%
2011	2,339.8	588.3	908.3	1,650.5	100%	100%	18%
2012	2,501.3	626.2	1,070.7	1,627.4	100%	94%	0%
2013	2,716.5	687.9	1,126.0	1,683.0	100%	88%	0%
2014	2,938.8	746.5	1,255.4	1,895.8	100%	92%	0%
2015	3,052.4	788.3	1,437.0	2,094.3	100%	91%	0%
2016	3,396.6	879.3	1,559.5	2,265.3	100%	89%	0%
2017	3,726.8	943.0	1,751.0	2,633.2	100%	97%	0%

Values prior to July 1, 2016, were calculated by the prior actuary.



**Schedule of Active Member Valuation Data – PERS - 2008–2017**

Main System				
Valuation Date 7/1	Number	Annual Payroll (\$ in Millions)	Average Annual Pay <sup>1</sup>	% Increase in Avg Pay
2008	19,042	\$627.6	\$32,959	5.7%
2009	19,686	684.3	34,762	5.5%
2010	20,372	751.1	36,868	6.1%
2011	20,359	785.4	38,577	4.6%
2012	20,738	781.6	37,690	(2.3)%
2013	21,201	865.9	40,841	8.4%
2014	21,814	946.2	43,376	9.3%
2015	22,381	993.6	43,395	0.0%
2016	22,762	1,007.8	44,274	2.0%
2017	22,574	1,020.8	45,222	2.1%

Judges				
Valuation Date 7/1	Number	Annual Payroll (\$ in Millions)	Average Annual Pay <sup>1</sup>	% Increase in Avg Pay
2008	47	\$5.2	\$111,427	7.5%
2009	47	5.4	115,741	3.9%
2010	47	5.7	120,962	4.5%
2011	49	6.2	126,474	4.6%
2012	49	6.1	124,645	(1.4)%
2013	49	6.6	134,673	8.0%
2014	50	7.0	139,290	3.4%
2015	51	7.3	142,636	2.4%
2016	56	7.9	141,733	(0.6)%
2017	54	7.9	145,668	2.8%

<sup>1</sup> Prior to the valuation as of July 1, 2016, annual payroll is based on projected annual compensation for the upcoming year. Beginning with the valuation as of July 1, 2016, annual payroll and average annual pay are based on annualized payroll as of the valuation date.

Values prior to July 1, 2016, were calculated by the prior actuary.

**North Dakota Public Employees Retirement System – Actuarial Section**  
**Public Employees Retirement System**

<b>Law Enforcement with Prior Main System Service</b>				
<b>Valuation Date 7/1</b>	<b>Number</b>	<b>Annual Payroll (\$ in Millions)</b>	<b>Average Annual Pay<sup>1</sup></b>	<b>% Increase in Avg Pay</b>
2008	177	\$7.1	\$39,674	11.2%
2009	180	7.0	38,965	(1.8)%
2010	217	11.9	54,467	39.8%
2011	226	10.1	44,908	(17.6)%
2012	239	10.8	45,074	0.4%
2013	268	13.4	49,981	10.9%
2014	315	16.7	53,121	6.3%
2015	318	18.7	58,781	10.7%
2016	498	28.2	56,678	(3.6)%
2017	498	28.8	57,762	1.9%

<b>Law Enforcement without Prior Main System Service</b>				
<b>Valuation Date 7/1</b>	<b>Number</b>	<b>Annual Payroll (\$ in Millions)</b>	<b>Average Annual Pay<sup>1</sup></b>	<b>% Increase in Avg Pay</b>
2008	30	\$0.8	\$27,472	8.5%
2009	30	0.9	31,660	15.2%
2010	32	1.1	35,572	12.4%
2011	61	2.4	39,911	12.2%
2012	65	2.4	36,588	(8.3)%
2013	70	2.6	36,998	1.1%
2014	83	3.6	43,872	18.6%
2015	95	4.6	48,204	9.9%
2016	100	4.6	46,217	(4.1)%
2017	117	5.9	50,400	9.0%

*1 Prior to the valuation as of July 1, 2016, annual payroll is based on projected annual compensation for the upcoming year. Beginning with the valuation as of July 1, 2016, annual payroll and average annual pay are based on annualized payroll as of the valuation date.*

*Values prior to July 1, 2016, were calculated by the prior actuary.*

**North Dakota Public Employees Retirement System – Actuarial Section**  
**Public Employees Retirement System**

**Analysis of Financial Experience - PERS**

Changes in the Contribution Rate During Years Ended June 30  
 Resulting from Differences Between Assumed Experience and Actual Experience

<u>Plan Year Ended</u>	<b>Main System</b>			
	<u>June 30, 2014</u>	<u>June 30, 2015</u>	<u>June 30, 2016</u>	<u>June 30, 2017</u>
<b>Employer Cost Rate - Beginning of Year</b>	<b>12.14%</b>	<b>11.06%</b>	<b>12.21%</b>	<b>10.48%</b>
Death after Retirement	(0.02)	(0.02)	(0.01)	(0.15)
Death-in-Service	0.00	0.00	0.00	0.00
Disability Requirements	0.00	0.00	0.00	0.00
Withdrawal from Employment	0.02	0.01	(0.01)	0.01
Age and Service Requirements	0.03	0.08	(0.01)	0.03
Financial Experience-Investments	(0.82)	(0.52)	0.10	(0.14)
Salary Scale and Service	0.16	(0.03)	(0.31)	0.12
Contribution Income	0.29	0.23	0.22	0.25
Administrative Expenses	0.01	0.01	0.01	0.00
New and Reinstated Members	0.07	0.07	0.02	0.81
Demographic Changes	(0.04)	0.13	0.00	0.14
Assumption Changes	0.00	1.13	0.00	(0.20)
Plan Change	(0.50)	0.00	0.00	0.00
Effect of Maintaining 20 Year Amortization	(0.28)	(0.27)	0.00	0.00
Death and Retirement from Withdrawals	0.00	0.00	(0.02)	(0.15)
Payroll Growth	N/A	0.33	N/A	N/A
<b>Employer Cost Rate - End of Year</b>	<b>11.06%</b>	<b>12.21%</b>	<b>10.48%</b>	<b>11.20%</b>

<u>Plan Year Ended</u>	<b>Judges</b>			
	<u>June 30, 2014</u>	<u>June 30, 2015</u>	<u>June 30, 2016</u>	<u>June 30, 2017</u>
<b>Employer Cost Rate - Beginning of Year</b>	<b>16.66%</b>	<b>14.80%</b>	<b>10.75%</b>	<b>8.90%</b>
Plan Change	(0.50)	0.00	0.00	0.00
Plan Experience	0.22	0.95	(1.67)	(1.25)
Investment Loss/(Gain)	(1.45)	(1.15)	0.47	(0.33)
Contribution Loss/(Gain)	0.00	0.00	(0.65)	(0.52)
Assumption Changes	0.00	(3.77)	0.00	(1.99)
Effect of Maintaining 20-year amortization	(0.13)	(0.08)	0.00	0.00
<b>Employer Cost Rate - End of Year</b>	<b>14.80%</b>	<b>10.75%</b>	<b>8.90%</b>	<b>4.81%</b>

<u>Plan Year Ended</u>	<b>Law Enforcement With Prior Main Service*</b>			
	<u>June 30, 2014</u>	<u>June 30, 2015</u>	<u>June 30, 2016</u>	<u>June 30, 2017</u>
<b>Employer Cost Rate - Beginning of Year</b>	<b>11.18%</b>	<b>9.42%</b>	<b>9.78%</b>	<b>8.08%</b>
Plan Change	(0.18)	(0.04)	0.00	0.00
Plan Experience	(1.06)	0.22	(1.87)	0.40
Investment Loss/(Gain)	(0.25)	(0.07)	0.59	(0.12)
Contribution Loss/(Gain)	0.00	0.00	(0.42)	0.12
Assumption Changes	0.00	0.39	0.00	(0.23)
Effect of Maintaining 20-year amortization	(0.17)	(0.14)	0.00	0.00
<b>Employer Cost Rate - End of Year</b>	<b>9.52%</b>	<b>9.78%</b>	<b>8.08%</b>	<b>8.25%</b>

<u>Plan Year Ended</u>	<b>Law Enforcement Without Prior Main Service</b>			
	<u>June 30, 2014</u>	<u>June 30, 2015</u>	<u>June 30, 2016</u>	<u>June 30, 2017</u>
<b>Employer Cost Rate - Beginning of Year</b>	<b>8.11%</b>	<b>7.42%</b>	<b>8.03%</b>	<b>6.44%</b>
Plan Change	(0.25)	0.00	0.00	0.00
Plan Experience	0.00	0.87	(1.62)	0.64
Investment Loss/(Gain)	(0.41)	(0.05)	0.14	(0.11)
Contribution Loss/(Gain)	0.00	0.00	(0.11)	(0.01)
Assumption Changes	0.00	(0.18)	0.00	(0.19)
Effect of Maintaining 20-year amortization	(0.03)	(0.03)	0.00	0.00
<b>Employer Cost Rate - End of Year</b>	<b>7.42%</b>	<b>8.03%</b>	<b>6.44%</b>	<b>6.77%</b>

\* Years prior to the year ended June 30, 2016 do not include National Guard members.

**North Dakota Public Employees Retirement System – Actuarial Section**  
**Public Employees Retirement System**

**Retirees and Beneficiaries Added to and Removed from the Rolls PERS - 2008–2017**

**Main System**

Plan Year	Beg of Year		Added to Rolls		Removed from Rolls		End of Year Balance		Average Annual Benefit	% Increase in Annual Benefit
	No.	Ann. Benefits*	No.	Ann. Benefits*	No.	Ann. Benefits*	No.**	Ann. Benefits*		
<b>Retirement</b>										
2008	6,506	\$ 61.7	547	\$ 7.2	(240)	\$ (1.7)	6,813	\$ 67.2	\$ 9,869	8.9%
2009	6,813	67.2	567	7.1	(222)	(1.9)	7,158	72.4	10,120	7.7%
2010	7,158	72.4	468	6.5	(254)	(1.9)	7,372	77.0	10,451	6.4%
2011	7,372	77.0	618	9.4	(230)	(1.8)	7,760	84.6	10,904	9.9%
2012	7,760	84.6	698	12.5	(216)	(1.8)	8,242	95.3	11,566	12.6%
2013	8,242	95.3	708	10.9	(284)	(4.0)	8,666	102.2	11,798	7.2%
2014	8,666	102.2	855	13.2	(291)	(2.4)	9,230	113.0	12,243	10.6%
2015	9,230	113.0	992	19.3	(243)	(2.4)	9,979	129.9	13,017	15.0%
2016	9,979	129.9	703	12.3	(288)	(2.6)	10,394	139.6	13,435	7.5%
2017	10,394	139.6	870	16.1	(307)	(3.0)	10,957	152.8	13,943	9.4%

\*\$ in millions

\*\* Excludes 24 pensioners as of June 30, 2014, 28 pensioners as of June 30, 2015, 35 pensioners as of June 30, 2016, and 41 pensioners as of June 30, 2017 in suspended status.

**Judges**

Plan Year	Beg of Year		Added to Rolls		Removed from Rolls		End of Year Balance		Average Annual Benefit	% Increase in Annual Benefit
	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits		
<b>Retirement</b>										
2008	30	\$ 1,077,497	1	\$ 49,517	(1)	(\$33,795)	30	\$ 1,093,219	\$ 36,441	1.5%
2009	30	1,093,219	1	69,931	(3)	(92,038)	28	1,071,112	38,254	-2.0%
2010	28	1,071,112	4	194,159	(2)	(47,106)	30	1,218,165	40,605	13.7%
2011	30	1,218,165	5	273,928	(1)	(20,861)	34	1,471,232	43,272	20.8%
2012	34	1,471,232	0	0	0	(648)	34	1,470,584	43,252	0.0%
2013	34	1,470,584	2	60,181	0	0	36	1,530,765	42,521	4.1%
2014	36	1,530,765	2	190,156	0	0	38	1,720,921	45,287	12.4%
2015	38	1,720,921	6	462,888	0	0	44	2,183,809	49,632	26.9%
2016	44	2,183,809	2	85,597	(3)	(147,638)	43	2,121,768	49,343	-2.8%
2017	43	2,121,768	10	674,619	(3)	(156,433)	50	2,639,954	52,799	24.4%

Values prior to July 1, 2016, were calculated by the prior actuary.

**North Dakota Public Employees Retirement System – Actuarial Section**  
**Public Employees Retirement System**

**Law Enforcement with prior Main System Service**

Plan Year	Beg of Year		Added to Rolls		Removed from Rolls		End of Year Balance		Average Annual Benefit	% Increase in Annual Benefit
	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits		
<b>Retirement</b>										
2008	15	\$ 213,045	6	\$ 122,584	0	\$ 0	21	\$ 335,688	\$ 15,985	57.6%
2009	21	335,688	4	78,938	(1)	(23,246)	24	391,380	16,307	16.6%
2010	24	391,380	10	176,285	(2)	(26,749)	32	540,916	16,904	38.2%
2011	32	540,916	9	217,899	0	0	41	758,815	18,508	40.3%
2012	41	758,815	6	105,606	0	0	47	864,421	18,392	13.9%
2013	47	864,421	9	225,057	0	(13,776)	56	1,075,702	19,209	24.4%
2014	56	1,075,702	7	83,168	(1)	(57,253)	62	1,101,617	17,768	2.4%
2015	62	1,101,617	11	301,041	0	0	73	1,402,658	19,215	27.3%
2016	73	1,402,658	7	53,522	(1)	(10,529)	79	1,445,651	18,299	3.1%
2017	79	1,445,651	11	390,805	0	0	90	1,836,456	20,405	27.0%

**Law Enforcement without prior Main System Service**

Plan Year	Beg of Year		Added to Rolls		Removed from Rolls		End of Year Balance		Average Annual Benefit	% Increase in Annual Benefit
	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefits		
<b>Retirement</b>										
2008	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	\$ 0	NA
2009	0	0	0	0	0	0	0	0	0	NA
2010	0	0	0	0	0	0	0	0	0	NA
2011	0	0	0	0	0	0	0	0	0	NA
2012	0	0	0	0	0	0	0	0	0	NA
2013	0	0	1	9,792	0	0	1	9,792	9,792	100.0%
2014	1	9,792	0	0	0	0	1	9,792	9,792	0.0%
2015	1	9,792	0	0	0	0	1	9,792	9,792	0.0%
2016	1	9,792	1	3,264	0	0	2	13,056	6,528	33.3%
2017	2	13,056	4	57,609	0	0	6	70,665	11,778	441.2%

Values prior to July 1, 2016, were calculated by the prior actuary.

**North Dakota Public Employees Retirement System – Actuarial Section  
Actuary’s Certification Letter  
Highway Patrolmen’s Retirement System**



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December 7, 2017

Board Members  
North Dakota Highway Patrolmen’s Retirement System  
Bismarck, North Dakota

Members of the Board:

At your request, we have performed an actuarial valuation which includes actuarial valuation results for funding purposes and separate actuarial valuation results for accounting purposes for the North Dakota Highway Patrolmen’s Retirement System (“HPRS”) as of July 1, 2017. The purpose of the funding actuarial valuation, which is performed annually, is to determine the funding status and actuarial employer contribution rate for the HPRS. The actuarial valuation was performed at the request of the Board and is intended for use by the Board and HPRS and those designated by the Board and HPRS. This report may be provided to parties other than the Board and HPRS only in its entirety and only with the permission of the Board and HPRS. GRS is not responsible for reliance upon this valuation for any other purpose, or by any other party.

#### Actuarial Assumptions and Methods

The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2017, actuarial valuation:

- The investment return assumption was lowered from 8.00 percent to 7.75 percent.
- The price inflation assumption was lowered from 3.50 percent to 2.50 percent.
- The payroll growth assumption used in calculating the amortization of the unfunded liability contribution for the actuarial contribution rate was lowered from 4.50 percent to 3.75 percent;
- The benefit indexing assumption for inactive vested members was lowered from 4.00 percent to 3.00 percent.
- The assumed rate of increase in the projected IRC 415 limit was lowered from 3.50 percent to 2.50 percent. (Projected future benefits for future retirees are limited by the projected IRC 415 limit.)
- The asset valuation method used in the funding actuarial valuation was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017.

All other actuarial assumptions used in the actuarial valuation as of July 1, 2017, were based on an experience review for the five-year period ending July 1, 2014, which was performed by the prior actuary, and were first adopted for use commencing with the July 1, 2015, valuation.

The actuarial employer contribution rate is calculated using a 20-year open period, level percentage of payroll amortization method. The remaining amortization period will be reset to 20 years in each future actuarial valuation.

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The actuarial assumptions and methods used, including the economic and demographic assumptions, the actuarial cost method and the asset valuation method, meet the Actuarial Standards of Practice issued by the Actuarial Standards Board for the funding of public sector pension plans and are set by the Board. Assumptions and methods required under GASB Statement 67 and 68 were used in the preparation of the accounting disclosures and schedules required by GASB 67 and 68.

**Benefit Provisions**

There were no changes since the previous valuation. The Board set the rate at 0% for the indexing percentage for the year beginning July 1, 2017, applicable to the final average salaries of HPRS deferred vested members.

**Participant Data**

A total of 151 active members were included in the valuation as of July 1, 2017. Between the 2016 and 2017 valuations, the number of active employees decreased by 5 members, or 3.2 percent. The average annual valuation pay increased by 4.3 percent, from \$67,479 to \$70,393 between the 2016 and 2017 valuation. There were six active members who were eligible for retirement (normal, early or Rule of 80) as of July 1, 2017.

The number of benefit recipients increased from 123 to 127, or 3.3 percent, since the last valuation. The average monthly benefit slightly decreased, from \$3,107 to \$3,106. During the year ending June 30, 2017, there were four members awarded a benefit.

There were 21 inactive members as of July 1, 2017, who were vested and elected to receive a deferred benefit. The average monthly deferred benefit is \$ 224. There were 18 inactive members as of July 1, 2017, who elected to receive a refund of contributions.

There were 13 members who were previously active in the HPRS that transferred to the PERS.

**Actuarial Valuation Assets**

On a market value basis, HPRS assets had an investment return of approximately 13.00 percent (net of investment expenses). On an actuarial value of asset basis, NDPERS assets had an investment return of approximately 9.00 percent on an actuarial value of assets basis, which compares to the prior year assumed rate of return of 8.00 percent.

The actuarial value of assets is currently 96.4 percent of the market value of assets. There is \$2,614,014 in net asset gains currently being deferred that will be phased into the actuarial value of assets over the next four years.

**Statutory and Actuarial Employer Contributions**

The actuarially determined contribution rate is calculated as the normal cost contribution (to fund benefits accruing during the year) plus a contribution to amortize the unfunded liability. The unfunded liability contribution rate is calculated using a 20-year open period, level percentage of payroll amortization



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method. The remaining amortization period will be reset to 20 years in each future actuarial valuation. If employers contributed the actuarial contribution rate, the contribution rate would be expected to gradually decrease using a 20-year open amortization period as the funded ratio gradually increased. An open amortization period is expected to gradually improve the funded ratio. However, the funded ratio is not expected to reach 100 percent under this method (assuming no actuarial gains or losses) because the remaining unfunded liability at each future valuation date is re-amortized over a new 20-year period.

The contributions that are made by employers are based on fixed contribution rates that are set by statute (and not based on the actuarially determined rate). The statutory contribution rate of 19.70% is lower than the actuarial contribution rate of 25.91%.

The portion of the statutory contribution that is applied toward the unfunded liability is the statutory contribution rate minus the employer normal cost rate. The unfunded liability contribution rate from the statutory contribution is lower than the rate calculated using the 20-year level percentage of payroll amortization period. (The equivalent amortization period of the unfunded liability rate from the statutory contribution rate is 63.8 years based on the actuarial value of assets and 43.7 years based on the market value of assets.)

We recommend an increase to the statutory contribution rate such that the unfunded liability is amortized over a period of no longer than 30 years.

#### **Reliance on Others**

The actuarial valuation was based upon information furnished by the NDPERS Staff, concerning benefits provided by the North Dakota Highway Patrolmen’s Retirement System, financial transactions, plan provisions and census data for active members, terminated members, retirees and beneficiaries as of July 1, 2017. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the NDPERS Staff.

The trend data in the Financial Section and the schedules and other data in this Section are prepared by NDPERS Staff with our input. Data prior to fiscal year 2016 was prepared by NDPERS Staff and the prior actuary. Specifically these exhibits are:

- Actuarial Assumptions and Cost Method
- Changes in Actuarial Assumptions and Cost Method
- Active Member Valuation Data
- Retirees and Beneficiaries Added to and Removed from the Rolls
- Solvency Test
- Analysis of Financial Experience
- Schedule of Retired Members by Type of Benefit
- Schedule of Average Monthly Benefit Payments

#### **Accounting Schedules under GASB Statement Nos. 67 and 68**

The total pension liability (actuarial accrued liability) is based on a measurement date of July 1, 2017, under the Entry Age Normal actuarial cost method. A single discount rate of 7.75 percent, which is the same rate





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that is used in the funding actuarial valuation calculations, was used to measure the total pension liability. All other assumptions and methods used in the funding actuarial valuation for calculation of the actuarial accrued liabilities as of July 1, 2017, were used in the GASB 67/68 actuarial valuation for calculation of the total pension liability for fiscal year ending June 30, 2017.

The net pension liability is measured as the total pension liability, less the amount of the pension plan’s fiduciary net position (market value of assets) as of June 30, 2017.

**Certification**

To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the North Dakota Highway Patrolmen’s Retirement System as of the actuarial valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. Lance Weiss and Amy Williams are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

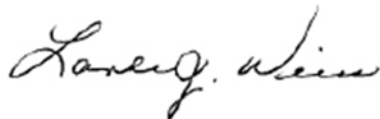
Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan’s funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary’s assignment, the actuary did not perform an analysis of the potential range of such future measurements in this report.

This report should not be relied on for any purpose other than the purpose stated.

The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



Lance J. Weiss, E.A., M.A.A.A., F.C.A.  
Senior Consultant and Team Leader



Amy Williams, A.S.A., M.A.A.A., F.C.A.  
Consultant

AW:nn



**North Dakota Public Employees Retirement System – Actuarial Section  
Highway Patrolmen’s Retirement System**

**Actuarial Assumptions and Cost Method – Highway Patrolmen’s Retirement System  
(Adopted July 1, 2017)**

**Mortality Tables:**

RP-2000 Combined Healthy Mortality table, sex-distinct, with rates set back 2 years for males and 3 years for females. RP 2000 Disabled Mortality table, sex-distinct, with rates set back 1 years for males (no setback for females), with rates multiplied by 125% for post-retirement disabled mortality. Mortality rates are projected from 2014 using the Social Security Administration (SSA) Intermediate Cost scale.

**Rates of Separation from Active Membership:**

<u>Service Beginning of Year</u>	<u>Rates</u>
0	10.00%
1-4	5.00%
 <u>Age</u>	
Under 35	2.50%
35+	1.00%

Withdrawal rates end upon eligibility for early retirement (age 50 and 10 years of service)

**Disability Incidence Rates**

Sample rates are as follows:

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	0.0120%	0.0060%
25	0.0171%	0.0085%
30	0.0220%	0.0110%
35	0.0295%	0.0147%
40	0.0440%	0.0220%
45	0.0719%	0.0360%
50	0.1212%	0.0606%
55	0.2018%	0.1009%
60	0.3254%	0.1627%
65	0.2500%	0.2500%

**Refund of Employee Contributions**

Inactive vested members are assumed to elect a refund of employee contributions in lieu of a deferred pension benefit when it is more valuable than the deferred annuity

**Retirement Rates**

Rates of retirement for members eligible to retire during the next year were as follows:

<u>Age</u>	<u>Rates</u>
50 - 54	20.00%
55+	100.00%

**Investment Rate of Return**

7.75% per annum, net of investment expenses

**Annual Administrative Expenses**

Prior year expenses, adjusted for inflation

**North Dakota Public Employees Retirement System – Actuarial Section  
Highway Patrolmen’s Retirement System**

**Salary Scale**

Less than three years of service:

<b><i>Service</i></b>	<b><i>Percent Increase</i></b>
0	15.00%
1	10.00%
2	8.00%

Three or more years of service (sample rates are as follows):

<b><i>Age</i></b>	<b><i>Percent Increase</i></b>
Under 36	8.00%
36-40	7.50%
41-49	6.00%
50+	5.00%

**Inflation**

2.50% per annum

**Payroll Growth**

3.75% per annum

**Marital Status**

It is assumed that 100 percent of participants have an eligible spouse at the time of retirement or pre-retirement death. The male spouse is assumed to be three years older than the female spouse.

Spouses are assumed to be the opposite sex of the employees and retirees. The relatively low rate of same-sex spouses does not have a material actuarial impact on the actuarial valuation results.

**Workers' Compensation**

None assumed for disability benefit offset

**Indexing for Benefits of Inactive Vested Members**

3.00% per annum

**Split Service**

Liabilities are held in both plans based on service in each plan, and are based on the actuarial assumptions of the plan in which they are currently active

**Transfers to PERS System**

Annual withdrawal, disability incidence and retirement rate assumptions for members who have transferred to the PERS System follow those specified in the PERS System, and are applied to the benefits held in the HPRS.

## **North Dakota Public Employees Retirement System – Actuarial Section Highway Patrolmen’s Retirement System**

### **Actuarial Cost Method**

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using the Individual Entry Age Normal actuarial cost method having the following characteristics:

- The normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- Each annual normal cost is a constant percentage of the member's year by year projected covered pay

### **Actuarial Value of Assets**

Calculated by determining the adjusted market value of assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last five years at the rate of 20% per year.

### **Benefit Election**

All participants are assumed to elect the 50% joint and survivor annuity

### **Changes in Actuarial Assumptions and Methods - Highway Patrolmen's Retirement System**

The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2017 valuation:

- The investment return assumption was lowered from 8% to 7.75%
- The price inflation assumption was lowered from 3.5% to 2.5%
- The payroll growth assumption used in calculating the amortization of the unfunded liability contribution for the actuarial contribution rate was lowered from 4.5% to 3.75%
- The benefit indexing assumption for inactive vested members was lowered from 4% to 3%
- The assumed rate of increase in the projected IRC 415 limit was lowered from 3.5% to 2.5% (Projected future benefits for future retirees are limited by the projected IRC 415 limit)
- The asset valuation method was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017

### **Summary of Plan Provisions - Highway Patrolmen's Retirement System**

This section summarizes the major benefit provisions of the North Dakota Highway Patrolmen's Retirement System as included in the valuation. It is not intended to be, nor should it be, interpreted as a complete statement of all plan provisions. Benefits are set by statute. There are no provisions or policies with respect to automatic and ad hoc post-retirement benefit increases.

#### **1. Normal Service Retirement:**

Eligibility: Attainment of age 55 with at least 10 years of eligible employment or with age plus service equal to at least 80 (Rule of 80)

Benefit: 3.6% of final average salary for each of the first 25 years of service plus 1.75% of final average salary for service in excess of 25 years.

#### **2. Early Service Retirement:**

Eligibility: Attainment of age 50 with 10 years of eligible employment

Benefit: The Normal Service Retirement Benefit as determined above, reduced by one-half of one percent for each month before age 55.

#### **3. Disability Benefit:**

Eligibility: Accumulation of six months of service and inability to engage in substantial gainful activity

Benefit: 70% of the member's final average salary at disability minus workers' compensation, with a minimum of \$100 per month

**North Dakota Public Employees Retirement System – Actuarial Section  
Highway Patrolmen’s Retirement System**

**4. Deferred Vested Retirement:**

Eligibility: 10 years of eligible employment.

Benefit: The Normal Service Retirement Benefit payable at age 55 or the Rule of 80, if earlier. Vested benefits are indexed at a rate set by the Retirement Board based on the increase in final average salary from date of termination to benefit commencement date, as follows:

<u>Year Beginning</u>	<u>Average Annual Increase</u>	<u>Three-Year Average Increase</u>
07/01/1994	3.00%	3.01%
07/01/1995	2.00%	2.86%
07/01/1996	2.00%	2.33%
07/01/1997	3.00%	2.33%
07/01/1998	1.80%	2.27%
07/01/1999	1.26%	2.02%
07/01/2000	2.00%	1.69%
07/01/2001	1.81%	1.69%
07/01/2002	1.73%	1.85%
07/01/2003	0.00%	1.18%
07/01/2004	0.00%	0.58%
07/01/2005	4.00%	1.33%
07/01/2006	4.00%	2.67%
07/01/2007	4.00%	4.00%
07/01/2008	4.00%	4.00%
07/01/2009	5.00%	4.33%
07/01/2010	5.00%	4.67%
07/01/2011	2.00%	4.00%
07/01/2012	2.00%	3.00%
07/01/2013	3.00%	2.33%
07/01/2014	3.00%	2.67%
07/01/2015	3.00%	3.00%
07/01/2016	2.00%	2.67%
07/01/2017	0.00%	1.67%

Reduced early retirement benefits can be elected upon attainment of age 50

**5. Pre-Retirement Death Benefits:**

Eligibility: Ten years of eligible employment

Benefit: One of the following options:

- 1) Lump sum payout of member's accumulated contributions with interest
- 2) 50% of the member's accrued benefit (not reduced on account of age) for the surviving spouse's lifetime.

Eligibility: Less than 10 years of service

Benefit: Lump sum payment of member's accumulated contributions with interest.

**North Dakota Public Employees Retirement System – Actuarial Section  
Highway Patrolmen’s Retirement System**

**6. Normal and Optional Forms of Payment:**

Normal Form of Payment: Monthly benefit for life with 50% of the benefit continuing for the life of the surviving spouse (if any).

Optional forms of payment:

- 1) 100% joint and survivor annuity
- 2) Twenty-year certain and life annuity
- 3) Ten-year certain and life annuity
- 4) A partial lump sum payment in addition to one of the annuity options above.
- 5) An actuarially equivalent graduated benefit option with either a one percent or two percent increase to be applied the first day of January of each year. Not available for disability or early retirements or in combination with a partial lump sum option or a deferred normal retirement option.

**7. Final Average Salary:**

Average of the highest salary received by the member for any 36 months employed during the last 180 months of employment.

**8. Contributions:**

Member contributions as a percent of monthly salary: 13.3%

Member contributions earn interest at an annual rate of 7.5% compounded monthly.

State contributions as a percent of monthly salary for each participating member: 19.7%

**Changes in Plan Provisions Since the Previous Valuation:**

There have been no changes in plan provisions since the previous valuations as of July 1, 2016

**Schedule of Active Member Valuation Data - HPRS  
2008 – 2017**

Valuation Date 7/1	Number	Annual Payroll (\$ in Millions)	Average Annual Pay <sup>1</sup>	% Increase in Avg Pay
2008	130	\$ 6.5	\$ 50,066	8.6%
2009	133	7.0	52,701	5.3%
2010	139	7.7	55,666	5.6%
2011	133	8.0	60,168	8.1%
2012	145	8.2	56,323	(6.4)%
2013	149	9.3	62,741	11.4%
2014	156	10.1	65,037	3.7%
2015	161	10.8	66,921	2.9%
2016	156	10.5	67,479	0.8%
2017	151	10.6	70,393	4.3%

<sup>1</sup>Prior to the valuation as of July 1, 2016, annual payroll and average annual pay are based on projected annual compensation for the upcoming year. Beginning with the actuarial valuation as of July 1, 2016, annual payroll and average annual pay are based on annualized payroll as of the valuation date.

**North Dakota Highway Patrolmen's Retirement System  
Retirees and Beneficiaries Added to and Removed from the Rolls, 2008 – 2017**

Year	Beg of Year		Added to Rolls		Removed from Rolls		End of Year Balance		Average Annual Benefit	% Increase in Annual Benefit
	No.	Ann. Benefits*	No.	Ann. Benefits*	No.	Ann. Benefits*	No.**	Ann. Benefits*		
<b>Retirement</b>										
2008	101	\$ 2,963,415	7	\$ 256,680	(3)	\$ (48,925)	105	\$ 3,171,170	\$ 30,202	7.0%
2009	105	3,171,170	8	249,776	(4)	(96,523)	109	3,324,423	30,499	4.8%
2010	109	3,324,423	5	191,085	(1)	(13,126)	113	3,502,382	30,995	5.4%
2011	113	3,502,382	2	58,150	0	0	115	3,560,532	30,961	1.7%
2012	115	3,560,532	3	179,349	(2)	(45,783)	116	3,694,098	31,846	3.8%
2013	116	3,694,098	4	169,974	(4)	(114,418)	116	3,749,654	32,325	1.5%
2014	116	3,749,654	2	138,200	(1)	(64,069)	117	3,823,785	32,682	2.0%
2015	117	3,823,785	16	967,969	(5)	(94,620)	128	4,697,134	36,696	22.8%
2016	128	4,697,134	2	68,562	(7)	(179,032)	123	4,586,664	37,290	-2.4%
2017	123	4,586,664	6	172,703	(6)	(175,412)	123	4,583,955	37,268	-0.1%

\* \$ in millions.

\*\* Includes alternate payees.

**North Dakota Public Employees Retirement System – Actuarial Section  
Highway Patrolmen’s Retirement System**

**Solvency Test - HPRS  
2008 – 2017**

A short-term solvency test is one means of checking a system’s progress under its funding program. In a short-term solvency test, the plan’s present assets (primarily cash and investments) are compared with:

- 1) Active member contributions on deposit
- 2) The liabilities for future benefits to present retired lives; and
- 3) The liabilities for service already rendered by active members.

In a system that has been following level percent of payroll financing, the liabilities for service already rendered by active members (liability 3) should be partially covered by the remainder of present assets. If the system continues using level cost financing, the funded portion of liability 3 will increase over time.

(Amounts in Millions)

Valuation Date	Total Actuarial Accrued Liability	(1)	(2)	(3)	Actuarial Value of Assets	Portion (%) of Present Value Covered		
		Active Member Contributions	Retirees, Term Vested and Beneficiaries	Active Members (Employer Financed Portion)		(1)	(2)	(3)
6/30								
2008	\$ 54.6	\$ 9.5	\$ 32.6	\$ 12.5	\$ 50.8	100%	100%	70%
2009	57.6	10.0	34.3	13.3	50.2	100%	100%	44%
2010	61.8	10.5	36.1	15.2	49.3	100%	100%	18%
2011	67.1	11.6	37.4	18.1	49.5	100%	100%	3%
2012	68.5	12.1	39.3	17.1	48.1	100%	92%	0%
2013	71.9	13.5	40.5	17.9	49.0	100%	88%	0%
2014	75.5	14.8	41.9	18.8	54.6	100%	95%	0%
2015	80.1	12.3	54.1	13.7	58.9	100%	86%	0%
2016	87.9	14.3	53.9	19.7	61.7	100%	88%	0%
2017	94.0	16.0	57.3	20.7	70.7	100%	95%	0%

**Analysis of Financial Experience - HPRS**

Changes in the Contribution Rate During Years Ended June 30  
Resulting from Differences Between Assumed Experience and Actual Experience

<u>Plan Year Ended</u>	<u>June 30, 2014</u>	<u>June 30, 2015</u>	<u>June 30, 2016</u>	<u>June 30, 2017</u>
<b>Employer Cost Rate - Beginning of Year</b>	<b>25.11%</b>	<b>21.70%</b>	<b>21.42%</b>	<b>27.11%</b>
Plan Change	(0.50)	0.00	0.00	0.00
Plan Experience	(1.03)	(0.12)	5.17	(0.03)
Change in Amortization Schedule	(0.54)	(0.50)	0.00	0.00
Assumption Changes	0.00	1.16	0.00	(1.36)
Investment Loss/(Gain)	(1.60)	(0.89)	0.00	(0.39)
Contribution Loss/(Gain)	(0.26)	0.07	0.52	0.58
<b>Employer Cost Rate - End of Year</b>	<b>21.70%</b>	<b>21.42%</b>	<b>27.11%</b>	<b>25.91%</b>



**North Dakota Public Employees Retirement System – Actuarial Section  
Actuary's Certification Letter  
Job Service Retirement Plan**



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December 7, 2017

**Board Members**  
Retirement Plan for Employees of Job Service North Dakota  
Bismarck, North Dakota

**Members of the Board:**

At your request, we have performed an actuarial valuation which includes actuarial valuation results for funding purposes and separate actuarial valuation results for accounting purposes for the Retirement Plan for Employees of Job Service North Dakota as of July 1, 2017. The purpose of the funding actuarial valuation, which is performed annually, is to determine the funding status and actuarial employer contribution rate for the Retirement Plan for Employees of Job Service North Dakota. The actuarial valuation was performed at the request of the Board and is intended for use by the Board and the Retirement Plan for Employees of Job Service North Dakota and those designated by the Board and the Retirement Plan for Employees of Job Service North Dakota. This report may be provided to parties other than the Board and the Retirement Plan for Employees of Job Service North Dakota only in its entirety and only with the permission of the Board and the Retirement Plan for Employees of Job Service North Dakota. GRS is not responsible for reliance upon this actuarial valuation for any other purpose, or by any other party.

**Actuarial Assumptions and Methods**

The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2017, actuarial valuation:

- The investment return assumption was lowered from 7.00 percent to 5.70 percent;
- The price inflation assumption was lowered from 3.50 percent to 2.50 percent;
- The Cost of Living Adjustment (COLA) assumption was lowered from 3.00 percent to 2.50 percent; and
- The asset valuation method used in the funding actuarial valuation was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017.

All other actuarial assumptions used in the actuarial valuation as of July 1, 2017, were based on an experience review for the five-year period ending July 1, 2014, which was performed by the prior actuary, and were first adopted for use commencing with the July 1, 2015, valuation.

The actuarial employer contribution rate under the Frozen Initial Liability Actuarial Cost Method is equal to the normal cost plus the payment required to amortize the initial unfunded actuarial accrued liability over a selected period of years. The normal cost is determined by calculating the total present value of

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all future benefits, subtracting the outstanding balance (if any) of the initial unfunded actuarial accrued liability, subtracting the actuarial value of assets and determining payments (not less than zero) that are a level percent of pay over the future working lifetime of all participants. In the absence of an initial unfunded actuarial accrued liability, the Frozen Initial Liability Actuarial Cost Method is the same as the Aggregate Cost Method.

The actuarial assumptions and methods used, including the economic and demographic assumptions, the actuarial cost method and the asset valuation method, meet the Actuarial Standards of Practice issued by the Actuarial Standards Board for the funding of public sector pension plans and are set by the Board. Assumptions and methods required under GASB Statement 67 and 68 were used in the preparation of the accounting disclosures and schedules required by GASB 67 and 68.

**Benefit Provisions**

There were no changes since the previous actuarial valuation.

**Participant Data**

A total of eight active members were included in the valuation as of July 1, 2017. Between the 2016 and 2017 valuations, the number of active employees decreased by 1 member, or 11.1 percent. The average annual valuation pay decreased by 0.7 percent, from \$62,743 to \$62,321 between the 2016 and 2017 valuation. All eight active members were eligible for retirement (normal, optional or early) as of July 1, 2017.

The number of benefit recipients decreased from 206 to 199, since the last actuarial valuation. The average monthly benefit increased by 1.7 percent, from \$1,864 to \$1,896. During the year ending June 30, 2017, there were two members awarded a benefit.

There was one inactive member as of July 1, 2017, who was vested and elected to receive a deferred benefit.

**Actuarial Valuation Assets**

On a market value basis, the Retirement Plan for Employees of Job Service North Dakota assets had an investment return of approximately 5.56 percent (net of investment expenses). On an actuarial value of asset basis, the Retirement Plan for Employees of Job Service North Dakota had an estimated net asset rate of return of 6.71 percent, which compares to the prior year assumed rate of return of 7.00 percent.

The actuarial value of assets is currently 101 percent of the market value of assets.

**Statutory and Actuarial Employer Contributions**

The "actuarial contribution" under the Frozen Initial Liability Actuarial Cost Method is the normal cost plus the payment required to amortize the unfunded initial actuarial accrued liability over a selected period of



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years. The normal cost is determined by calculating the total present value of all future benefits, subtracting the outstanding balance (if any) of the unfunded initial actuarial accrued liability, subtracting the actuarial value of assets and determining payments (not less than zero) that are a level percent of pay over the future working lifetime of all participants. In the absence of an unfunded initial actuarial accrued liability, the Frozen Initial Liability Actuarial Cost Method is the same as the Aggregate Cost Method.

An “actuarial contribution” will be determined when the plan is not in surplus and will be based on a funding policy adopted by the Employer.

**Reliance on Others**

The actuarial valuation was based upon information furnished by the NDPERS Staff, concerning benefits provided by the Retirement Plan for Employees of Job Service North Dakota, financial transactions, plan provisions and census data for active members, terminated members, retirees and beneficiaries as of July 1, 2017. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the NDPERS Staff.

The trend data in the Financial Section and the schedules and other data in this Section are prepared by NDPERS Staff with our input. Data prior to fiscal year 2016 was prepared by NDPERS Staff and the prior actuary. Specifically these exhibits are:

- Actuarial Assumptions and Cost Method
- Changes in Actuarial Assumptions and Cost Method
- Active Member Valuation Data
- Retirees and Beneficiaries Added to and Removed from the Rolls
- Solvency Test
- Analysis of Financial Experience
- Schedule of Retired Members by Type of Benefit
- Schedule of Average Monthly Benefit Payments

**Accounting Schedules under GASB Statement Nos. 67 and 68**

The total pension liability (actuarial accrued liability) is based on a measurement date of July 1, 2017, under the Entry Age Normal actuarial cost method. A single discount rate of 5.70 percent, which is the same rate that is used in the funding actuarial valuation calculations, was used to measure the total pension liability. All other assumptions and methods used in the funding actuarial valuation for calculation of the actuarial accrued liabilities as of July 1, 2017, were used in the GASB 67/68 actuarial valuation for calculation of the total pension liability for fiscal year ending June 30, 2017.

The net pension liability is measured as the total pension liability, less the amount of the pension plan’s fiduciary net position (market value of assets) as of June 30, 2017.



**North Dakota Public Employees Retirement System – Actuarial Section  
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**Certification**

To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Plan for Employees of Job Service North Dakota as of the actuarial valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. Lance Weiss and Amy Williams are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

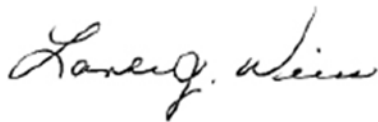
Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements in this report.

This report should not be relied on for any purpose other than the purpose stated.

The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



Lance J. Weiss, E.A., M.A.A.A., F.C.A.  
Senior Consultant and Team Leader



Amy Williams, A.S.A., M.A.A.A., F.C.A.  
Consultant

AW:nn



**Actuarial Assumptions and Cost Method  
Retirement Plan for Employees of Job Service of North Dakota  
(Adopted July 1, 2017)**

**Actuarial Cost Method:**

There is a wide range of funding methods that are considered acceptable by the actuarial profession and meet government standards. The frozen initial liability actuarial cost method is the method used currently for the Retirement Plan for Employees of Job Service North Dakota.

The "annual contribution" under this method is the normal cost plus the payment required to amortize the unfunded initial actuarial accrued liability over a selected period of years. The normal cost is determined by calculating the total value of all future benefits, subtracting the outstanding balance (if any) of the unfunded initial actuarial accrued liability, subtracting the actuarial value of assets, and determining payments (not less than zero) that are a level percent of pay over the future working lifetime of all participants. In the absence of an unfunded initial liability actuarial accrued liability, the frozen initial liability actuarial cost method is the same as the aggregate cost method.

The "scheduled contribution" will be determined when the plan is not in surplus and will be based on a funding policy adopted by the Employer.

**Asset Valuation Method:**

The asset value indicates the portion of the benefits already funded. The method used to determine this value is called the actuarial asset valuation method. The actuarial asset valuation method is as follows:

The calculated value is determined by adjusting the market value of assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last five years at the rate of 20 percent per year. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017. This asset smoothing method was first adopted by the Board to use beginning with the July 1, 2017 actuarial valuation.

**Actuarial Assumptions:**

The information and analysis is used in selecting each assumption that has a significant effect on this actuarial valuation is shown in our report titled Experience Review: July 2009 - June 2014, issued in May 2015.

**Mortality Tables:**

RP-2000 Combined Healthy Mortality table, sex-distinct, with rates set back 2 years for males and 3 years for females. RP 2000 Disabled Mortality table, sex-distinct, with rates set back 1 years for males (no setback for females), with rates multiplied by 125% for post-retirement disabled mortality. Mortality rates are projected from 2014 using the Social Security Administration (SSA) Intermediate Cost scale.

These underlying tables with generational projection to the ages of participants as one of the measurement date reasonably reflect the mortality experience as of the measurement date.

**North Dakota Public Employees Retirement System – Actuarial Section  
Job Service Retirement Plan**

<b>Age</b>	<b><u>Healthy Mortality</u></b>		<b><u>Disability Mortality</u></b>	
	<b><u>Future Life Expectancy in Years in 2017</u></b>		<b><u>Future Life Expectancy in Years in 2017</u></b>	
	<b><u>Men</u></b>	<b><u>Women</u></b>	<b><u>Men</u></b>	<b><u>Women</u></b>
20	67.75	72.15	32.53	49.96
25	62.35	66.74	30.59	46.09
30	56.96	61.32	28.56	42.15
35	51.59	55.91	26.39	38.13
40	46.27	50.54	24.01	33.98
45	41.01	45.21	21.30	29.66
50	35.80	39.93	18.42	25.41
55	30.67	34.73	15.88	21.64
60	25.72	29.65	13.67	18.33
65	21.06	24.80	11.63	15.32
70	16.82	20.31	9.67	12.54
75	13.00	16.20	7.81	10.04
80	9.67	12.54	6.19	7.87
85	6.92	9.35	4.87	6.04
90	4.83	6.75	3.68	4.55
95	3.44	4.93	2.59	3.44
100	2.61	3.88	1.95	2.78
105	2.17	3.15	1.62	2.16

**Disability Incidence Rates:**

Sample rates are as follows:

<b><u>Age</u></b>	<b><u>Male</u></b>	<b><u>Female</u></b>
20	0.0120%	0.0060%
25	0.0171%	0.0085%
30	0.0220%	0.0110%
35	0.0295%	0.0147%
40	0.0440%	0.0220%
45	0.0719%	0.0360%
50	0.1212%	0.0606%
55	0.2018%	0.1009%
60	0.3254%	0.1627%
65	0.2500%	0.2500%

**Withdrawal Rates:**

There are no withdrawal rates for Job Service members.

**Retirement Rates**

Rates of retirement for members eligible to retire during the next year were as follows:

<b><u>Age</u></b>	<b><u>Rates</u></b>
50-64	15.00%
65+	100.00%

**Salary Scale**

2.5% per year.

**Post-retirement cost-of-living adjustment:**

2.5% per year.

## **North Dakota Public Employees Retirement System – Actuarial Section Job Service Retirement Plan**

### **Marital Status**

It is assumed that 85 percent of participants have an eligible spouse at the time of retirement or pre-retirement death. The male spouse is assumed to be four years older than the female spouse.

Spouses are assumed to be the opposite sex of the employees and retirees. The relatively low rate of same-sex spouses does not have a material actuarial impact on the actuarial valuation results

### **Rate of Return on Assets/Discount Rate:**

5.7% per year, compounded annually, net of investment expenses

### **Future Benefit Accruals:**

One year of credited service per year per active employee included in the valuation

### **Annual Administrative Expenses**

Prior year expenses, adjusted for inflation

### **Benefit Election:**

55% of participants are assumed to elect the Single Life Annuity with 120 month guarantee, and 45% are assumed to elect the 55% Contingent Annuitant Option.

### **Changes in Actuarial Assumptions or Cost Method**

The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2017 valuation:

- The investment return assumption was lowered from 7% to 5.7%
- The price inflation assumption was lowered from 3.5% to 2.5%
- The Cost of Living Adjustment (COLA) assumption was lowered from 3% to 2.5%
- The asset valuation method was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017

### **Summary of Plan Provisions - Job Service Retirement Plan**

This section summarizes the major benefit provisions of the Retirement Plan for Employees of Job Service as included in the valuation. It is not intended to be, nor should it be, interpreted as a complete statement of all plan provisions. Benefits are established through the plan document, as amended. The system provides a post-retirement cost-of-living adjustment each year, based on the Consumer Price Index

#### **1. Normal Retirement**

Age Requirement: 65

Service Requirement: None

Benefit: Average monthly earnings multiplied by the sum of:

- a. 1.5% times credited service up to five years, plus
- b. 1.75% times credited service between six and ten years, plus
- c. 2.00% times credited service in excess of ten years

Average Monthly Earnings - monthly average earnings during the highest three consecutive years of employment

#### **2. Optional Retirement**

Age and Service Requirements:

- Age 62 with 5 years of credited service, or
- Age 60 with 20 years of credited service, or
- Age 55 with 30 years of credited service.

Benefit: Accrued normal retirement benefit.

**North Dakota Public Employees Retirement System – Actuarial Section  
Job Service Retirement Plan**

**3. Early Retirement**

Age Requirement: Ten years before normal or optional retirement age

Service Requirement: Same as optional retirement

Benefit: Accrued normal retirement benefit, reduced if payments begin before normal or optional retirement

**4. Disability Benefit**

Age Requirement: None

Service Requirement: Five years of credited service

Benefit: Greater or accrued normal retirement benefit or 40% of average monthly earnings

**5. Deferred Vested Retirement**

Age Requirement: None

Service Requirement: Five years of credited service

Benefit: Accrued normal retirement benefit payable at normal or optional retirement. After attainment of early retirement age, reduced benefits may not be paid.

Employees who meet the requirements for a vested benefit may elect to receive a return of their accumulated employee contributions (including interest at 4% per year) in lieu of all other benefits under the plan.

**6. Refund of Member Contributions:**

Employees who do not meet the requirements for a vested benefit will receive a return of their accumulated employee contributions (including interest at 4% per year).

**7. Pre-Retirement Death Benefits**

*Married participants or single participants with eligible children*

**Surviving Spouse's Benefit:**

Age Requirement: None

Service Requirement: None

**Benefit: 55% of the greater of (a) or (b)**

(a) Accrued normal retirement benefit

(b) The lesser of (1) or (2)

(1) 40% of average monthly earnings

(2) Normal retirement benefit based on credited service to age 60

**Children's Benefit:**

Provided for children under age 18 (age 22 if a full-time student) note: the actuarial valuation does not consider the benefits for expected surviving children



**North Dakota Public Employees Retirement System – Actuarial Section  
Job Service Retirement Plan**

*Single participants with no eligible children*

**120 Payment Guarantee:**

Age Requirement: None

Service Requirement: Five years of credited service

Benefit: Accrued normal retirement benefit payable for 120 months. Not payable if surviving spouse or children's benefit is payable.

**Lump Sum Benefit:**

Age Requirement: None

Service Requirement: None

Benefit: Accumulated employee contributions (including interest at 4% per year). Not payable if the surviving spouse, children's benefit or 120 payment guarantee is in effect

**8. Post-Retirement Death Benefits**

Based on form of payment elected by the pensioner.

**9. Post-Retirement Cost-of-Living Adjustment**

Based on the Consumer Price Index as approved by the Board.

**10. Participation**

Plan participant before October 1, 1980

**11. Credited Service**

Monthly salaried employment in a probationary or permanent status including only: service for which contributions were made (including purchased service), eligible military service and unused sick leave.

**12. Contribution Rate**

Employee: 7% of average monthly earnings (4% picked up by employer)

Employer: remaining scheduled contribution, if any.

**13. Normal and Optional Forms of Payment:**

- Single Life Annuity with 120 month guarantee (Normal);
- Single Life Annuity with 240 month guarantee;
- Single Life Annuity with 180 month guarantee;
- 55% Contingent Annuitant Option;
- 75% Contingent Annuitant Option;
- 100% Contingent Annuitant Option; and
- Uniform Income Option

**Changes in Plan Provisions Since the Previous Valuation:**

There have been no changes in plan provisions since the previous valuations as of July 1, 2016

**Schedule of Active Member Valuation Data  
Job Service Retirement Plan 2008 – 2017**

<b>Valuation Date 7/1</b>	<b>Number</b>	<b>Annual Payroll (\$ in Millions)</b>	<b>Average Annual Pay<sup>1</sup></b>	<b>% Increase in Avg Pay</b>
2008	38	\$1.8	\$46,385	0.7%
2009	35	1.7	48,841	5.3%
2010	31	1.6	51,975	6.4%
2011	23	1.2	52,208	0.4%
2012	19	1.0	54,892	5.1%
2013	15	0.8	56,173	2.3%
2014	13	0.8	60,819	8.3%
2015	11	0.7	63,402	4.2%
2016	9	0.6	62,743	3.2%
2017	8	0.5	62,321	(0.7)%

<sup>1</sup>Prior to the valuation as of July 1, 2016, annual payroll and average annual pay are based on projected annual compensation for the upcoming year. Beginning with the actuarial valuation as of July 1, 2016, annual payroll and average annual pay are based on annualized payroll as of the valuation date.

**Retirement Plan for Employees of Job Service North Dakota  
Retirees and Beneficiaries (Including Traveler's Annuitants)  
Added to and Removed from the Rolls, 2008 – 2017**

Plan Year	Beg of Year		Added to Rolls		Removed from Rolls		End of Year Balance		Average Annual Benefit	% Increase in Annual Benefit
	No.	Ann. Benefits*	No.	Ann. Benefits*	No.	Ann. Benefits*	No.**	Ann. Benefits*		
<b>Retirement</b>										
2008	220	\$ 3,459,148	7	\$ 195,354	(11)	(\$99,492)	216	\$ 3,555,010	\$ 16,458	2.8%
2009	216	3,555,010	4	354,356	(6)	(80,657)	214	3,828,709	17,891	7.7%
2010	214	3,828,709	4	116,464	(7)	(121,601)	211	3,866,281	18,324	1.0%
2011	211	3,866,281	8	229,678	(6)	(96,255)	213	3,999,704	18,778	3.5%
2012	213	3,999,704	9	543,433	(10)	(153,978)	212	4,389,159	20,704	9.7%
2013	212	4,389,159	8	273,087	(7)	(250,470)	213	4,411,776	20,713	0.5%
2014	213	4,411,776	6	300,806	(6)	(86,706)	213	4,625,876	21,718	4.9%
2015	213	4,625,876	2	106,825	(9)	(119,238)	206	4,613,463	22,395	-0.3%
2016	206	4,613,463	7	119,994	(7)	(126,408)	206	4,607,049	22,364	-0.1%
2017	206	4,607,049	2	110,266	(9)	(189,860)	199	4,527,455	22,751	-1.7%

\* Includes cost of living adjustment of 3.6% for retirement benefits in pay status as of July 1, 2011, 1.7% as of July 1, 2015, and 0.3% as of July 1, 2017. Excludes benefits paid by Travelers.

\*\* Includes 2 alternate payees

Results prior to 2016 provided by NDPERS prior actuary.

**North Dakota Public Employees Retirement System – Actuarial Section  
Job Service Retirement Plan**

**Solvency Test – Job Service Retirement Plan  
2008 – 2017**

A short-term solvency test is one means of checking a system’s progress under its funding program. In a short-term solvency test, the plan’s present assets (primarily cash and investments) are compared with:

- 1) The liabilities for future benefits to present retired lives; and
- 2) The liabilities for future benefits to inactive vested employees not in pay status; and
- 3) The liabilities for future benefits to current active employees.

In a system that has been following level percent of payroll financing, the liabilities for service already rendered by active members (liability 3) should be partially covered by the remainder of present assets. If the system continues using level cost financing, the funded portion of liability 3 will increase over time.

(Amounts in Millions)

Valuation Date	Present Value of Future Benefits	(1)	(2)	(3)	Actuarial Value of Assets	Portion (%) of Present Value Covered By Assets		
		Retirees, Term Vested and Beneficiaries	Inactive Vested Employee (Not in Pay Status)	Active Members		(1)	(2)	(3)
2008	\$71.9	\$54.8	\$0.2	\$16.9	\$77.0	100%	100%	100%
2009	72.0	55.3	0.2	16.5	74.5	100%	100%	100%
2010	70.9	55.1	0.2	15.6	73.5	100%	100%	100%
2011	68.2	55.7	0.9	11.6	74.2	100%	100%	100%
2012	72.0	61.1	0.7	10.2	75.1	100%	100%	100%
2013	66.4	56.7	1.9	7.8	76.3	100%	100%	100%
2014	65.5	57.9	0.0	7.6	78.2	100%	100%	100%
2015	63.6	56.2	0.0	7.4	79.2	100%	100%	100%
2016	61.4	55.0	0.0	6.4	81.0	100%	100%	100%
2017	63.8	57.4	0.0	6.4	98.4	100%	100%	100%

*As of July 1, 2017, the asset smoothing method was revised and net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized.*

**Analysis of Financial Experience - Job Service Retirement Plan**

Changes in the Contribution Rate During Years Ended June 30  
Resulting from Differences Between Assumed Experience and Actual Experience

<i>Plan Year Ended</i>	<i>June 30, 2014</i>	<i>June 30, 2015</i>	<i>June 30, 2016</i>	<i>June 30, 2017</i>
<b>Employer Cost Rate - Beginning of Year</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>
Plan Change	0.00	0.00	0.00	0.00
Plan Experience	0.00	0.00	0.00	0.00
Change in Amortization Schedule	0.00	0.00	0.00	0.00
Assumption Changes	0.00	0.00	0.00	0.00
Investment Loss/(Gain)	0.00	0.00	0.00	0.00
Contribution Loss/(Gain)	0.00	0.00	0.00	0.00
<b>Employer Cost Rate - End of Year</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>



December 7, 2017

**Board Members**  
North Dakota Retiree Health Insurance Credit Fund  
Bismarck, North Dakota

**Members of the Board:**

At your request, we have performed an actuarial valuation which includes actuarial valuation results for funding purposes and separate actuarial valuation results for accounting purposes for the North Dakota Retiree Health Insurance Credit Fund ("RHIC") as of July 1, 2017. The purpose of the funding actuarial valuation, which is performed annually, is to determine the funding status and actuarial employer contribution rate for the RHIC. The actuarial valuation was performed at the request of the Board and is intended for use by the Board and RHIC and those designated by the Board and RHIC. This report may be provided to parties other than the Board and RHIC only in its entirety and only with the permission of the Board and RHIC. GRS is not responsible for reliance upon this valuation for any other purpose, or by any other party.

#### **Actuarial Assumptions and Methods**

The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2017, actuarial valuation:

- The investment return assumption was lowered from 8.00 percent to 7.50 percent.
- The price inflation assumption was lowered from 3.50 percent to 2.50 percent.
- The payroll growth assumption used in calculating the amortization of the unfunded liability contribution for the actuarial contribution rate was lowered from 4.50 percent to 3.75 percent.
- The asset valuation method used in the funding actuarial valuation was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017.
- The actuarial cost method used in the funding actuarial valuation to calculate the actuarial accrued liability and normal cost for active members was changed from the Projected Unit Credit to the Entry Age Normal actuarial cost method.

All other actuarial assumptions used in the actuarial valuation as of July 1, 2017, were based on an experience review for the five-year period ending July 1, 2014, which was performed by the prior actuary, and were first adopted for use commencing with the July 1, 2015, valuation.

The plan was changed a few years ago to no longer require enrollment in the NDPERS health insurance plan in order to receive payments from the RHIC. As a result, beginning with the 2016 actuarial valuation, all eligible retirees were included in the actuarial valuation (including those not enrolled in the

Board Members  
December 7, 2017  
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NDPERS health insurance plan). In addition, it is assumed that only members retiring directly from active status will receive payments from the RHIC.

Prior to the next actuarial valuation as of July 1, 2018, we recommend that an analysis be performed to develop assumptions regarding the percentage of eligible members who are expected to receive payments from the RHIC (including those who are currently not active members and are deferred vested members in the Public Employees Retirement System or in the Highway Patrolmen's Retirement System).

The actuarial contribution rate is calculated using a 40-year closed period (beginning July 1, 1990) level-percentage of pay amortization of the unfunded liability. The remaining amortization period is 13 years as of the actuarial valuation date.

The actuarial assumptions and methods used, including the economic and demographic assumptions, the actuarial cost method and the asset valuation method, meet the Actuarial Standards of Practice issued by the Actuarial Standards Board for the funding of public sector pension plans and are set by the Board. Assumptions and methods required under GASB Statement 67 and 68 were used in the preparation of the accounting disclosures and schedules required by GASB 67 and 68.

#### **Benefit Provisions**

There were no changes since the previous valuation.

#### **Participant Data**

A total of 23,497 active members were included in the actuarial valuation as of July 1, 2017. Between the 2016 and 2017 actuarial valuations, the number of active employees decreased by 167 members, or 0.7 percent. The average annual valuation pay increased by 2.1 percent, from \$45,075 to \$46,042 between the 2016 and 2017 actuarial valuations.

The number of eligible current benefit recipients increased from 10,320 to 11,232, or 8.8 percent, since the last actuarial valuation. All eligible retirees, including those not enrolled in the NDPERS health insurance plan, were included beginning with the 2016 actuarial valuation.

The average monthly benefit decreased by 3.0 percent, from \$100 to \$97.

#### **Actuarial Valuation Assets**

On a market value basis, RHIC assets had an investment return of approximately 11.59 percent (net of investment expenses). On an actuarial value of asset basis, RHIC assets had an investment return of approximately 8.72 percent, which compares to the prior year assumed rate of return of 8.00 percent.



Board Members  
December 7, 2017  
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The actuarial value of assets is currently 97 percent of the market value of assets. There is \$2,990,763 in net asset gains currently being deferred that will be phased into the actuarial value of assets over the next four years.

#### **Statutory and Actuarial Employer Contributions**

The actuarially determined contribution rate is calculated as the normal cost contribution (to fund benefits accruing during the year) plus a contribution to amortize the unfunded liability. The unfunded liability contribution rate is calculated using a 40-year closed period (beginning July 1, 1990) level-percentage of pay amortization of the unfunded liability. The remaining amortization period is 13 years as of the actuarial valuation date. If employers contributed the actuarial contribution rate, the contribution rate would be expected to remain level using a 40-year closed amortization period (assuming the actuarial assumptions are realized, including a 7.50 return on the actuarial value of assets). A closed amortization period is expected to increase the funded ratio to 100 percent by the end of the closed period (assuming no actuarial gains or losses).

The contributions that are made by employers are based on fixed contribution rates that are set by statute (and not based on the actuarially determined rate). The statutory contribution rate of 1.14% is slightly higher than the actuarial contribution rate of 1.05%.

The portion of the statutory contribution that is applied toward the unfunded liability is the statutory contribution rate minus the employer normal cost rate. The unfunded liability contribution rate from the statutory contribution is higher than the rate calculated using the 13-year level percentage of payroll amortization period. (The equivalent amortization period of the unfunded liability rate from the statutory contribution rate is 11.3 years based on the actuarial value of assets and 10.8 years based on the market value of assets.)

#### **Reliance on Others**

The actuarial valuation was based upon information furnished by the NDPERS Staff, concerning benefits provided by the North Dakota Retiree Health Insurance Credit Fund, financial transactions, plan provisions and census data for active members, terminated members, retirees and beneficiaries as of July 1, 2017. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the NDPERS Staff.

The trend data in the Financial Section and the schedules and other data in this Section are prepared by NDPERS Staff with our input. Data prior to fiscal year 2016 was prepared by NDPERS Staff and the prior actuary. Specifically these exhibits are:

- Actuarial Assumptions and Cost Method
- Changes in Actuarial Assumptions and Cost Method
- Active Member Valuation Data
- Retirees and Beneficiaries Added to and Removed from the Rolls
- Solvency Test
- Analysis of Financial Experience
- Schedule of Retired Members by Type of Benefit



Board Members  
December 7, 2017  
Page 4

- Schedule of Average Monthly Benefit Payments

**Accounting Schedules Under GASB Statement Nos. 74 and 75**

The total OPEB liability (actuarial accrued liability) is based on a measurement date of July 1, 2017, under the Entry Age Normal actuarial cost method. A single discount rate of 7.50 percent was used to measure the total pension liability. The single discount rate was based on the expected rate of return on OPEB plan investments of 7.50 percent and the municipal bond rate of 3.56 percent. All other assumptions and methods used in the funding actuarial valuation for calculation of the actuarial accrued liabilities as of July 1, 2017, were used in the GASB 74/75 actuarial valuation for calculation of the total OPEB liability for fiscal year ending June 30, 2017.

The net OPEB liability is measured as the total OPEB liability, less the amount of the OPEB plan's fiduciary net position (market value of assets) as of June 30, 2017.

**Certification**

To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the North Dakota Retiree Health Insurance Credit Fund as of the actuarial valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. Lance J. Weiss and Amy Williams are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

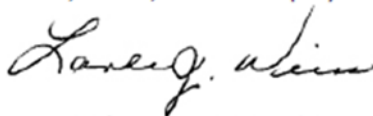
Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements in this report.

This report should not be relied on for any purpose other than the purpose stated.

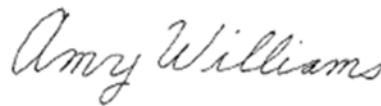
The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



Lance J. Weiss, E.A., M.A.A.A., F.C.A.  
Senior Consultant and Team Leader



Amy Williams, A.S.A., M.A.A.A., F.C.A.  
Consultant



**Actuarial Assumptions and Cost Method  
Retiree Health Insurance Credit Fund  
(Adopted July 1, 2017)**

**Mortality Tables:**

**Active PERS Members and Retirees:**

RP-2000 Combined Healthy Mortality table, sex-distinct, with rates set back 2 years for males and 3 years for females. RP 2000 Disabled Mortality table, sex-distinct, with rates set back 1 year for males (no setback for females), with rates multiplied by 125% for post-retirement disabled mortality. Mortality rates are projected from 2014 using the Social Security Administration (SSA) Intermediate Cost scale.

These underlying tables with generational projection to the ages of participants as one of the measurement date reasonably reflect the mortality experience as of the measurement date.

<b>Age</b>	<b><u>Healthy Mortality</u></b>		<b><u>Disability Mortality</u></b>	
	<b><u>Future Life</u></b>		<b><u>Future Life</u></b>	
	<b><u>Expectancy in</u></b>		<b><u>Expectancy in</u></b>	
	<b><u>Years in 2016</u></b>		<b><u>Years in 2016</u></b>	
	<b><u>Men</u></b>	<b><u>Women</u></b>	<b><u>Men</u></b>	<b><u>Women</u></b>
20	67.75	72.15	32.53	49.96
25	62.35	66.74	30.59	46.09
30	56.96	61.32	28.56	42.15
35	51.59	55.91	26.39	38.13
40	46.27	50.54	24.01	33.98
45	41.01	45.21	21.30	29.66
50	35.80	39.93	18.42	25.41
55	30.67	34.73	15.88	21.64
60	25.72	29.65	13.67	18.33
65	21.06	24.80	11.63	15.32
70	16.82	20.31	9.67	12.54
75	13.00	16.20	7.81	10.04
80	9.67	12.54	6.19	7.87
85	6.92	9.35	4.87	6.04
90	4.83	6.75	3.68	4.55
95	3.44	4.93	2.59	3.44
100	2.61	3.88	1.95	2.78
105	2.17	3.15	1.62	2.16

**Withdrawal Rates:**

Different withdrawal rates are applied to the active members of the Main and DC Systems, Highway Patrol, Judges and Law Enforcement. Rates for the Main and Law Enforcement Systems are detailed below. The withdrawal assumptions applied to the active members in the other groups are detailed in the valuation report for their retirement system.

Rates of separation from active membership are represented by the following table (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members terminating employment.



**North Dakota Public Employees Retirement System – Actuarial Section  
Retiree Health Insurance Credit Fund**

<b>Service and Age-Based Rates for First Five Years of Service</b>						
<b>Service Beginning of Year</b>	<b>Main System</b>			<b>Law Enforcement</b>		
	<b>Age</b>					
	<b>Under 30</b>	<b>30-39</b>	<b>40+</b>	<b>Under 30</b>	<b>30-39</b>	<b>40+</b>
0	22.00%	16.00%	12.00%	25.00%	20.00%	17.00%
1	18.00%	14.00%	10.00%	23.00%	17.00%	15.00%
2	16.00%	12.00%	10.00%	20.00%	15.00%	12.00%
3	14.00%	12.00%	8.00%	17.00%	13.00%	10.00%
4	14.00%	11.00%	7.00%	15.00%	11.00%	7.00%

<b>Age</b>	<b>Age-Based Rates Only After First Five Years of Service</b>	
	<b>Main System</b>	<b>Law Enforcement</b>
	20-24	8.80%
25-29	8.80%	8.80%
30-34	5.50%	5.50%
35-39	4.70%	4.70%
40-44	3.90%	3.90%
45-49	3.70%	3.70%
50-54	3.40%	3.40%
55-59	0.10%	0.10%
60+	0.20%	0.20%

No pre-retirement termination is assumed for Judges.

**Disability Incidence Rates:**

Sample rates are as follows:

<b>Age</b>	<b>Male</b>	<b>Female</b>
20	0.0120%	0.0060%
25	0.0171%	0.0085%
30	0.0220%	0.0110%
35	0.0295%	0.0147%
40	0.0440%	0.0220%
45	0.0719%	0.0360%
50	0.1212%	0.0606%
55	0.2018%	0.1009%
60	0.3254%	0.1627%
65	0.2500%	0.2500%

**Retirement Rates**

Different retirement rates are applied to the active members of the Main and DC Systems, Highway Patrol, Judges, and Law Enforcement. Retirement rates for the Systems are detailed below. The retirement rates applied to the active members of the other groups are detailed in the valuation report for the retirement system.

**North Dakota Public Employees Retirement System – Actuarial Section  
Retiree Health Insurance Credit Fund**

Rates of retirement for members eligible to retire during the next year were as follows:

Age	Main System		Law Enforcement	Judges
	Reduced	Unreduced	Unreduced	Unreduced
50		30.00%	25.00%	
51		10.00%	25.00%	
52		10.00%	25.00%	
53		10.00%	25.00%	
54		10.00%	25.00%	
55	1.00%	10.00%	10.00%	10.00%
56	1.00%	8.00%	10.00%	10.00%
57	1.00%	8.00%	10.00%	10.00%
58	1.00%	8.00%	10.00%	10.00%
59	1.00%	8.00%	10.00%	10.00%
60	2.00%	8.00%	10.00%	10.00%
61	5.00%	15.00%	10.00%	10.00%
62	10.00%	30.00%	50.00%	10.00%
63	10.00%	30.00%	50.00%	10.00%
64	10.00%	20.00%	50.00%	10.00%
65		30.00%	50.00%	20.00%
66		20.00%	20.00%	20.00%
67		15.00%	20.00%	20.00%
68		15.00%	20.00%	20.00%
69		15.00%	20.00%	20.00%
70		15.00%	20.00%	20.00%
71		15.00%	20.00%	20.00%
72		15.00%	20.00%	20.00%
73		15.00%	20.00%	20.00%
74		15.00%	20.00%	20.00%
75+		100.00%	100.00%	100.00%

**Highway Patrol**

Age	Rates
50	20.00%
51	20.00%
52	20.00%
53	20.00%
54	20.00%
55+	100.00%

Unreduced retirement is achieved when reaching age 65 or meeting the Rule of 85.

**Participation Rates**

All members are assumed to participate.

**Benefit Election**

*Main and DC Systems and Law Enforcement:*

- 50% of participants are assumed to elect the Single Life Annuity with 120 month guarantee,
- 45% are assumed to elect the 55% Contingent Annuitant Option,
- 5% of new retirements are assumed to elect a Refund of Member Contributions

Valued without reduction for optional form of payment

*Judges and HPRS:*

- 100% of retirees will elect a 100% joint and survivor form of pension from the retirement system

Valued without reduction for optional form of payment

## **North Dakota Public Employees Retirement System – Actuarial Section Retiree Health Insurance Credit Fund**

### **Interest Rate**

7.5% per annum, net of investment expenses

### **Inflation**

2.5% per annum

### **Annual Administrative Expenses**

Prior year expenses, adjusted for inflation

### **Marital Status**

It is assumed that 75% of participants in the Main System and Law Enforcement and 100% of Judges and Highway Patrol participants have an eligible spouse at the time of retirement or pre-retirement death. The male spouse is assumed to be three years older than the female spouse.

Spouses are assumed to be the opposite sex of the employees and retirees. The relatively low rate of same-sex spouses does not have a material actuarial impact on the actuarial valuation results

### **Payroll Growth**

3.75% per annum

### **Actuarial Cost Method:**

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using the Individual Entry Age Normal actuarial cost method having the following characteristics:

- The normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- Each annual normal cost is a constant percentage of the member's year by year projected covered

### **Asset Valuation Method:**

Calculated by determining the adjusted market value of assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last five years at the rate of 20% per year.

### **Changes in Actuarial Assumptions or Cost Method**

The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2017 valuation:

- The investment return assumption was lowered from 8% to 7.50%
- The price inflation assumption was lowered from 3.5% to 2.5%
- The payroll growth assumption used in calculating the amortization of the unfunded liability contribution for the actuarial contribution rate was lowered from 4.5% to 3.75%
- The asset valuation method was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017
- The asset valuation method was updated to smooth total investment gains or losses compared to the investment return assumption over a five-year period. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017

## **North Dakota Public Employees Retirement System – Actuarial Section Retiree Health Insurance Credit Fund**

### **Summary of Plan Provisions - Retiree Health Insurance Credit Fund**

This section summarizes the major benefit provisions of the North Dakota Public Employees Retirement System Retiree Health Insurance Credit Fund as included in the valuation. It is not intended to be, nor should it be, interpreted as a complete statement of all plan provisions. Benefits are set by statute. There are no provisions or policies with respect to automatic and ad hoc post-retirement benefit increases.

#### **1. Covered Employees**

Members of the Public Employees Retirement System, the Highway Patrolmen's Retirement System and the Defined Contribution Retirement Plan

#### **2. Eligibility**

Receiving a periodic payment from Public Employees Retirement System, the Highway Patrolmen's Retirement System or the Defined Contribution Retirement Plan and incurring an eligible insurance premium expense.

#### **3. Normal Retirement**

Age Requirement:

Main, DC Systems, and Judges: Age 65, or at any age with age plus service equal to at least 85 (rule of 85). For member enrolled after December 31, 2015 into the Main System, attainment of age 65, or at any age with age plus service equal to at least 90 (rule of 90).

Highway Patrol: Age 55 or at any age with age plus service equal to at least 80 (rule of 80)

Law Enforcement: Age 55, or if not National Guard, at any age with age plus service equal to at least 85 (rule of 85). National Guard is eligible for Rule of 85 on August 1, 2015.

Service Requirement:

Main, DC Systems, and Judges: None

Highway Patrol: 10 years

Law Enforcement: 3 consecutive years

Effective July 1, 2015, the Retiree Health Insurance Credit benefit may be used for any health insurance and/or prescription drug plan for which a retiree incurs an eligible premium expense. In addition, the benefit can also be applied toward NDPERS administered dental, vision, and long-term care plan premium expenses

Benefit Amount: A monthly stipend equal to \$5.00 times years of service.

#### **4. Early Retirement**

Age Requirement:

Main, DC Systems, and Judges: Age 55

Highway Patrol and Law Enforcement: Age 50

**North Dakota Public Employees Retirement System – Actuarial Section  
Retiree Health Insurance Credit Fund**

Service Requirement:

Main, DC Systems, and Law Enforcement: 3 years

Judges: 5 years

Highway Patrol: 10 years

Benefit:

Main, DC Systems and Judges: The Normal Retirement Benefit reduced by 3% for retirements at age 64 and an additional 6% for each year by which retirement precedes age 64.

Benefits are unreduced upon the fulfillment of the Rule of 85

Highway Patrol and Law Enforcement: The Normal Retirement Benefit reduced by 3% for retirements at age 54 and an additional 6% for each year by which retirement precedes age 54.

Benefits are unreduced upon the fulfillment of the Rule of 80, for Highway Patrol and Rule of 85 for Law Enforcement

**5. Disability Retirement**

Age Requirement: None

Service Requirement: 6 months

Other Requirements: As required by applicable pension plan

Benefit: Same as Normal Retirement Benefit

**6. Pre-Retirement Death Benefits**

Age Requirement: None

Service Requirement:

Main, DC Systems, and Law Enforcement: 3 years

Judges: 5 years

Highway Patrol: 10 years

Benefit Amount: Same as Normal Retirement Benefit accrued to the date of the member's death, payable for as long as benefits are payable to the spouse from the Retirement System under the standard option

**7. Post-Retirement Death Benefits**

Following a retired member's death, the Retiree Health Insurance Credit Fund will:

- 1) Continue benefits to the member's spouse if the spouse continues to receive a monthly pension from member's Retirement Plan, or
- 2) Provide benefits to the member's spouse if the member selected a joint and survivor option from the Retiree Health Insurance Credit Fund.

**North Dakota Public Employees Retirement System – Actuarial Section  
Retiree Health Insurance Credit Fund**

**8. Alternative Options**

If benefits from the member's Retirement Plan are paid under single life, level Social Security, or 10 or 20-year term certain options (without a continuation to the spouse after the certain period ends), actuarially reduced health credit benefits may be elected for the spouse. Alternative options in the Retiree Health Insurance Credit Fund include 50% and 100% joint and survivor annuities

**9. Service**

Members receive credit for each year and month of employment

**10. Contributions**

The employer contributes 1.14% of covered salaries and wages for participating employees.

**Plan Amendments - Retiree Health Insurance Credit Fund**

There have been no changes made in the plan provisions since the prior valuation

**Retired Members and Beneficiaries,  
Average Annual Benefit and Active Member/Retiree Comparison  
Retiree Health Insurance Credit Fund 2008 – 2017**

Valuation Date 7/1	Number of Active Members*	Number of Retired Members	Average Annual Benefit	Number of Active Members Per Retiree
2008	19,675	3,935	\$1,200	5.0
2009	20,150	4,030	1,356	5.0
2010	20,936	4,105	1,377	5.1
2011	21,210	4,242	1,394	5.0
2012	21,322	4,442	1,416	4.8
2013	21,785	4,635	1,428	4.7
2014	22,642	4,828	1,428	4.7
2015	23,237	5,212	1,455	4.5
2016	23,664	10,320	1,199	2.3
2017	23,497	11,232	1,164	2.1

\* Number of active members prior to 7/1/2014 is approximated based on figures from the NDPERs Comprehensive Annual Financial Report

**North Dakota Public Employees Retirement System – Actuarial Section  
Retiree Health Insurance Credit Fund**

**Assets and Actuarial Accrued Liabilities  
Retiree Health Insurance Credit Fund 2008 - 2017**

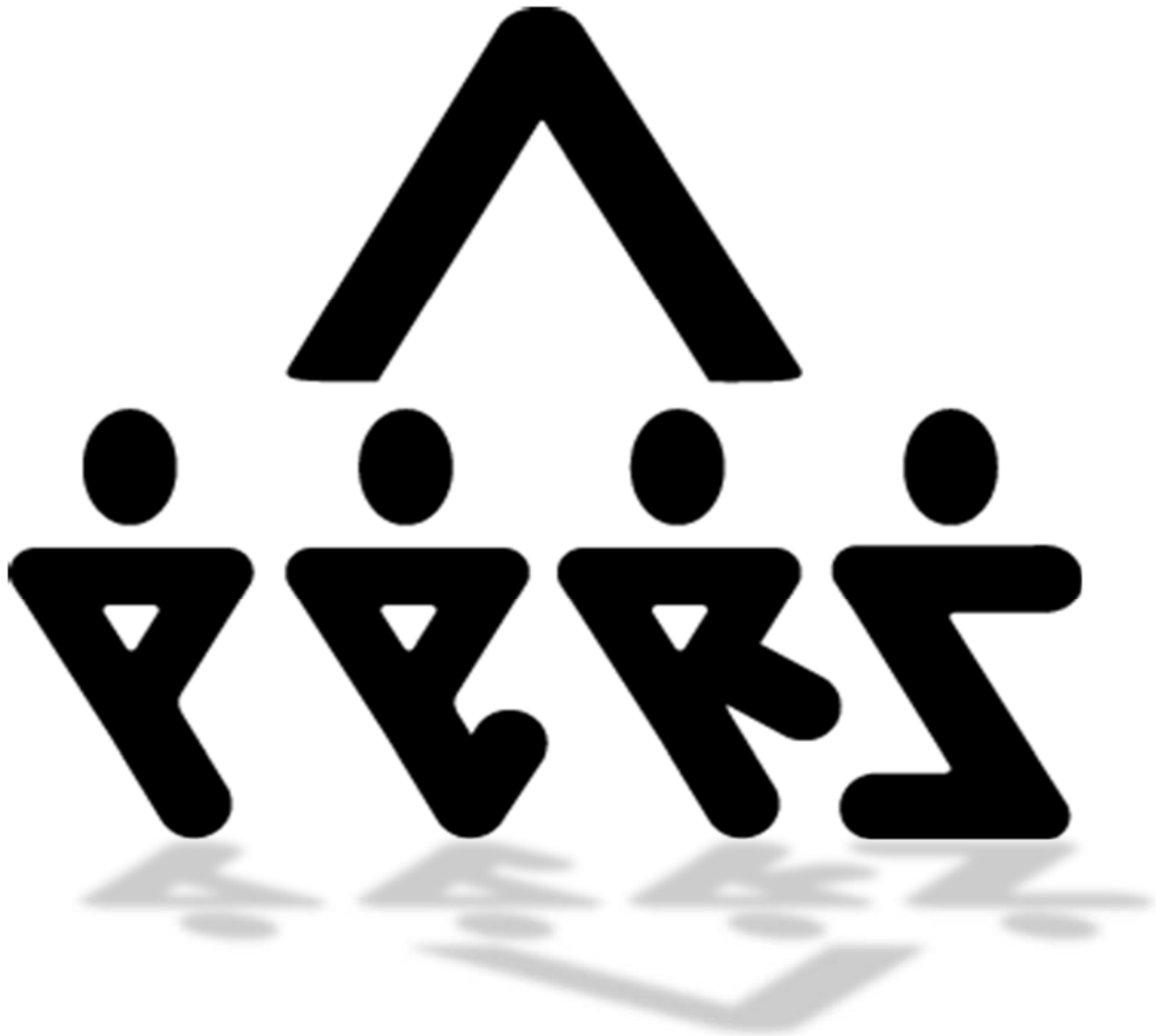
(Amounts in Millions)

<u>July 1</u>	<u>Total Actuarial Accrued Liability</u>	<u>Total Actuarial Value of Assets</u>	<u>Assets as of % of Total Actuarial Accrued Liability</u>	<u>Unfunded Actuarial Accrued Liability</u>	<u>Total Payroll</u>	<u>Total Unfunded Liability as % of Payroll</u>
2008	87.6	42.5	48.6	45.1	660.9	6.8
2009	102.2	44.8	43.9	57.4	719.8	8.0
2010	102.8	48.7	47.4	54.1	793.6	6.8
2011	108.4	53.7	49.6	54.7	829.0	6.6
2012	112.4	58.3	51.9	54.1	824.9	6.6
2013	114.1	66.0	57.8	48.1	914.4	5.3
2014	116.6	77.9	66.8	38.7	1,001.2	3.9
2015	128.9	89.4	69.4	39.5	1,052.7	3.8
2016	176.6	97.8	55.4	78.8	1,142.4	6.9
2017	196.7	114.6	58.3	82.1	1,157.5	7.1

**Analysis of Financial Experience -Retiree Health Insurance Credit Fund**

Changes in the Contribution Rate During Years Ended June 30  
Resulting from Differences Between Assumed Experience and Actual Experience

<u>Plan Year Ended</u>	<u>June 30, 2014</u>	<u>June 30, 2015</u>	<u>June 30, 2016</u>	<u>June 30, 2017</u>
<b>Employer Cost Rate - Beginning of Year</b>	<b>0.77%</b>	<b>0.64%</b>	<b>0.72%</b>	<b>1.02%</b>
Plan Change	(0.08)	0.04	0.00	0.00
Plan Experience	0.00	0.00	0.30	0.01
Change in Amortization Schedule	(0.02)	(0.01)	0.00	0.00
Assumption Changes	0.00	(0.10)	0.00	0.03
Investment Loss/(Gain)	0.00	0.15	0.00	(.01)
Contribution Loss/(Gain)	(0.03)	0.00	0.00	0.00
<b>Employer Cost Rate - End of Year</b>	<b>0.64%</b>	<b>0.72%</b>	<b>1.02%</b>	<b>1.05%</b>



# STATISTICAL SECTION

The Statistical Section contains membership and financial information for the programs administered by the System. Included in this section are schedules providing financial trend information for administrative cost per member, benefits paid, changes in net position and deferred compensation assets by provider. Information on the operations of the System is provided in the schedules of members by type of benefit, average benefit payments, participating employers, Group Health insurance contracts and premiums.



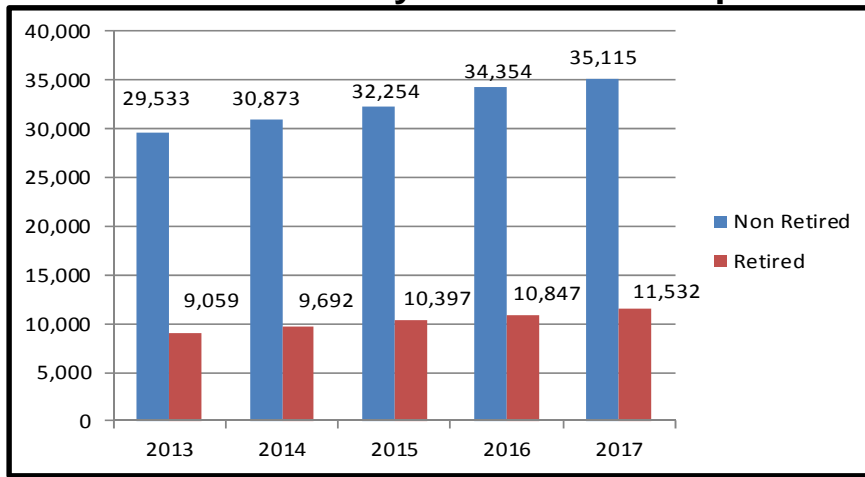
**North Dakota Public Employees Retirement System – Statistical Section  
Retirement System Membership**

**Retirement System Membership - PERS, HPRS, and Job Service  
As of June 30**

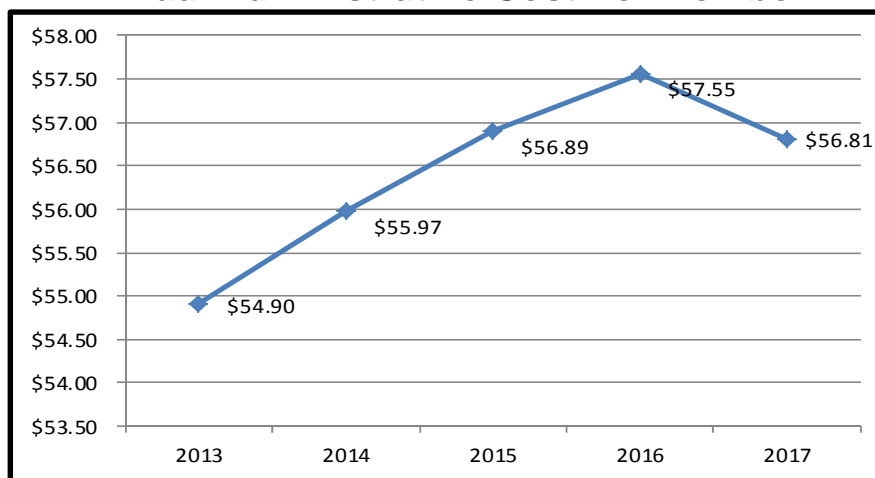
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
State Agencies	13,985	14,176	14,284	15,254	15,157
Cities	1,908	2,142	2,391	2,641	2,820
Counties	5,040	5,410	5,750	5,986	6,157
School Districts	7,821	8,314	8,939	9,528	9,971
Other Political Subdivisions	779	831	890	945	1,010
Total Non-Retired <sup>(1)</sup>	29,533	30,873	32,254	34,354	35,115
Retired Members & Beneficiaries	9,059	9,692	10,397	10,847	11,532
Total Membership	38,592	40,565	42,651	45,201	46,647
Administrative Expenses	\$ 2,118,566	\$ 2,270,230	\$ 2,426,496	\$ 2,601,502	\$ 2,650,122
Administrative Cost Per Member	\$ 54.90	\$ 55.97	\$ 56.89	\$ 57.55	\$ 56.81

<sup>(1)</sup> Total non-retired members includes all contributing members plus all non-contributing members who have not begun to receive retirement benefits

**Retirement System Membership**



**Annual Administrative Cost Per Member**



**North Dakota Public Employees Retirement System – Statistical Section  
Benefit Expenses**

**Schedule of Benefit Expenses by Type - PERS  
Fiscal Year Ended June 30**

FY Ended June 30	Annuities			Refunds			Total
	Retirant	Disability	Survivor	Death	Separation	Transfers <sup>(1)</sup>	
2012	85,599,845	1,934,357	6,549,185	706,326	4,098,719	412,994	99,301,426
2013	95,023,504	1,930,968	6,341,305	1,045,556	4,738,268	212,500	109,292,101
2014	104,765,144	1,964,820	6,570,735	652,235	5,585,607	347,783	119,886,324
2015	117,545,803	1,901,631	7,732,091	1,221,279	5,996,286	532,647	134,929,737
2016	131,207,803	1,804,201	8,251,792	706,059	7,295,910	398,649	149,664,414
2017	143,554,696	1,750,399	8,505,934	1,228,689	7,712,641	239,609	162,991,968

**Schedule of Benefit Expenses by Type - HPRS  
Fiscal Year Ended June 30**

FY Ended June 30	Annuities			Refunds			Total
	Retirant	Disability	Survivor	Death	Separation	Transfers	
2012	3,290,516	105,131	266,002	0	598	0	3,662,247
2013	3,353,261	105,131	291,496	0	22,428	0	3,772,316
2014	3,297,164	105,131	350,332	0	32,108	0	3,784,735
2015	4,049,384	105,131	373,663	0	217,332	0	4,745,510
2016	4,179,070	105,131	374,031	0	55,263	0	4,713,495
2017	4,237,782	105,131	425,683	0	37,723	0	4,806,319

**Schedule of Benefit Expenses by Type - Job Service  
Fiscal Year Ended June 30**

FY Ended June 30	Annuities			Refunds			Total
	Retirant	Disability	Survivor	Death	Separation	Transfers	
2012	3,821,456	143,649	205,864	0	0	0	4,170,969
2013	3,977,545	126,601	249,838	0	0	0	4,353,984
2014	4,208,982	118,440	267,040	0	0	0	4,594,462
2015	4,402,680	150,008	141,483	0	0	0	4,694,171
2016	4,175,496	107,092	318,608	0	0	0	4,601,196
2017	4,117,689	92,459	324,005	0	0	0	4,534,153

<sup>(1)</sup> Includes transfers to Deferred Compensation Plan to offset software development costs

**North Dakota Public Employees Retirement System – Statistical Section  
Changes in Net Position**

**Changes in Net Position**

<b>Additions:</b>	<b>FY Ended 30-Jun</b>	<b>Member Contributions</b>	<b>Employer Contributions</b>	<b>Purchased Service Credit</b>	<b>Investment Income</b>	<b>Miscellaneous Income</b>	<b>Total Additions</b>	<b>Employer Contributions as a % of Covered Payroll</b>
<b>Public Employees Retirement System:</b>								
	2008	27,105,614	25,253,902	3,454,411	(97,388,032)	5,187	(41,568,918)	3.94%
	2009	26,237,554	27,705,267	3,732,801	(421,049,421)	1,983	(363,371,816)	3.90%
	2010	28,579,338	30,253,093	4,005,571	173,592,763	3,406	236,434,171	3.93%
	2011	30,479,702	32,278,056	3,797,333	308,352,471	2,129	374,909,691	4.01%
	2012	36,095,927	38,005,854	6,503,853	(3,472,695)	8,700	77,141,639	4.75%
	2013	46,815,060	48,846,796	7,470,218	231,849,472	-	334,981,546	5.50%
	2014	59,394,200	61,661,050	8,325,140	316,628,462	1,101	446,009,953	6.33%
	2015	68,392,061	70,842,535	6,651,879	81,536,565	-	227,423,040	6.92%
	2016	74,218,276	77,080,576	9,179,163	11,333,124	23,575,649	195,386,788	6.86%
	2017	76,007,456	78,933,571	11,805,070	311,760,863	32,183	478,539,143	6.94%
<b>Highway Patrolmen's Retirement System:</b>								
	2008	649,861	1,058,825	-	(3,100,879)	21	(1,392,172)	16.27%
	2009	692,320	1,122,720	-	(13,215,900)	14	(11,400,846)	16.02%
	2010	741,271	1,196,562	-	53,466,677	25	7,284,535	15.46%
	2011	793,028	1,285,699	46,844	9,332,725	4	11,458,300	16.07%
	2012	893,784	1,423,154	13,911	(104,302)	68	2,226,615	17.43%
	2013	1,028,615	1,586,186	133,169	6,854,552	-	9,602,522	16.97%
	2014	1,243,520	1,864,632	87,418	9,239,929	-	12,435,499	18.38%
	2015	1,351,798	2,002,291	96,429	2,334,780	-	5,785,298	18.58%
	2016	1,436,236	2,127,355	-	316,958	5	3,880,554	18.85%
	2017	1,455,540	2,155,944	249,436	8,500,352	221	12,361,493	18.94%
<b>Job Service Retirement Plan:</b>								
	2008	123,718	-	-	(1,310,119)	-	(1,186,401)	0.00%
	2009	119,115	-	-	(14,092,621)	-	(13,973,506)	0.00%
	2010	114,626	-	-	9,307,523	-	9,422,149	0.00%
	2011	97,591	-	-	11,999,421	2	12,097,014	0.00%
	2012	83,351	-	-	3,100,706	-	3,184,057	0.00%
	2013	72,174	-	-	9,984,241	-	10,056,415	0.00%
	2014	55,748	-	-	11,887,840	-	11,943,588	0.00%
	2015	50,142	-	-	3,260,507	-	3,310,649	0.00%
	2016	44,178	-	-	4,840,333	-	4,884,511	0.00%
	2017	39,417	-	-	5,238,877	-	5,278,294	0.00%
<b>Retiree Health Insurance Credit Plan:</b>								
	2008	7,593	6,174,940	227,655	(6,469,252)	-	(59,064)	0.93%
	2009	9,094	6,771,699	169,242	(6,251,486)	-	698,549	0.94%
	2010	10,653	8,392,847	237,735	6,658,687	-	15,299,922	1.06%
	2011	15,592	8,929,903	166,962	9,788,886	-	18,907,343	1.08%
	2012	13,246	9,388,040	423,449	1,604,475	-	11,429,210	1.14%
	2013	13,300	9,959,603	371,587	7,963,391	-	18,307,881	1.09%
	2014	15,539	10,709,792	368,859	12,366,408	-	23,460,598	1.07%
	2015	12,625	11,478,599	347,238	2,760,953	-	14,599,415	1.09%
	2016	16,655	12,349,883	383,089	793,705	-	13,543,332	1.08%
	2017	16,173	12,575,627	464,323	12,074,082	-	25,130,205	1.09%

**North Dakota Public Employees Retirement System – Statistical Section  
Changes in Net Position**

## Changes in Net Position

Deductions:	FY Ended <u>30-Jun</u>	<u>Benefits</u>	<u>Administrative Expenses</u>	<u>Transfers &amp; Refunds</u>	<u>Total Deductions</u>	<u>Change in Net Position</u>
<b>Public Employees Retirement System:</b>						
	2008	70,153,871	1,118,233	4,860,814	76,132,918	(117,701,836)
	2009	71,169,574	1,261,120	5,417,235	77,847,929	(441,219,745)
	2010	76,884,950	1,214,733	4,152,792	82,252,475	154,181,696
	2011	84,307,028	1,797,287	4,933,760	91,038,075	283,871,616
	2012	94,083,387	1,856,915	5,218,039	101,158,341	(24,016,702)
	2013	103,295,777	2,059,315	5,996,324	111,351,416	223,630,130
	2014	113,300,699	2,210,792	6,585,625	122,097,116	323,912,837
	2015	127,179,525	2,365,357	7,750,212	137,295,094	90,127,946
	2016	141,263,796	2,537,799	8,400,345	152,201,940	43,184,848
	2017	153,811,029	2,607,243	9,180,939	165,599,211	312,939,932
<b>Highway Patrolmen's Retirement System:</b>						
	2008	3,077,105	18,364	134,475	3,229,944	(4,622,116)
	2009	3,176,258	18,834	17,911	3,213,003	(14,613,849)
	2010	3,402,021	18,154	131	3,420,306	3,864,229
	2011	3,531,145	22,734	37,156	3,591,035	7,867,265
	2012	3,661,649	26,674	598	3,688,921	(1,462,306)
	2013	3,749,888	29,237	22,428	3,801,553	5,800,969
	2014	3,752,627	27,983	32,108	3,812,718	8,622,781
	2015	4,528,178	217,332	30,925	4,776,435	1,008,863
	2016	4,658,232	31,450	55,263	4,744,945	(864,391)
	2017	4,768,596	30,195	37,723	4,836,514	7,524,979
<b>Job Service Retirement Plan:</b>						
	2008	3,564,811	22,212	-	3,587,023	(4,773,424)
	2009	3,759,618	25,101	-	3,784,719	(17,758,225)
	2010	3,891,996	24,318	-	3,916,314	5,505,835
	2011	4,012,707	26,368	-	4,039,075	8,057,939
	2012	4,170,969	25,980	-	4,196,949	(1,012,892)
	2013	4,353,984	30,014	-	4,383,998	5,672,417
	2014	4,594,462	31,455	-	4,625,917	7,317,671
	2015	4,694,171	30,214	-	4,724,385	7,317,671
	2016	4,601,196	32,253	-	4,633,449	251,062
	2017	4,534,153	12,684	-	4,546,837	731,457
<b>Retiree Health Insurance Credit Plan:</b>						
	2008	4,704,087	89,877	2,673	4,796,637	(4,855,701)
	2009	4,854,724	115,207	2,846	4,972,777	(4,274,228)
	2010	5,563,631	102,353	3,932	5,669,916	9,630,006
	2011	5,789,371	151,388	1,745	5,942,504	12,958,839
	2012	6,092,429	171,393	2,071	6,265,893	5,163,317
	2013	6,458,449	185,619	8,765	66,652,833	11,655,048
	2014	6,798,427	201,471	2,992	7,002,890	16,457,708
	2015	7,246,091	217,989	6,994	7,471,074	7,128,341
	2016	9,329,881	431,291	3,135	9,764,307	3,779,025
	2017	10,012,681	443,220	1,689	10,457,590	14,672,615

**North Dakota Public Employees Retirement System – Statistical Section  
Schedule of Average Benefit Payments**

**Schedule of Retired Members by Type of Benefit - PERS  
As of June 30, 2017  
Main System**

Monthly Amount	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under \$200	601	535	2	6	183	1,327	1,144
\$200 - \$400	659	810	33	33	238	1,773	1,535
\$400 - \$600	574	575	39	29	175	1,392	1,217
\$600 - \$800	488	295	40	17	116	956	840
\$800 - \$1,000	561	134	20	14	50	779	729
\$1,000 - \$1,200	542	118	5	20	47	732	685
\$1,200 - \$1,400	500	46	1	41	37	625	588
\$1,400 - \$1,600	421	24	1	35	21	502	481
\$1,600 - \$1,800	381	16	0	39	20	456	436
\$1,800 - \$2,000	331	9	0	47	19	406	387
\$2,000 - \$2,200	270	4	0	45	9	328	319
\$2,200 - \$2,400	253	7	0	44	12	316	304
\$2,400 - \$2,600	204	2	0	34	4	244	240
\$2,600 - \$2,800	184	1	0	24	5	214	209
\$2,800 - \$3,000	128	2	0	15	4	149	145
\$3,000 and Over	642	1	0	95	20	758	738
<b>Total</b>	<b>6,739</b>	<b>2,579</b>	<b>141</b>	<b>538</b>	<b>960</b>	<b>10,957</b>	<b>9,997</b>
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	3,875	1,842	120	275	202	6,314	6,112
Life 1% Graduated Benefits	1	3	0	1	0	5	5
Life 2% Graduated Benefits	3	1	0	0	0	4	4
Level Social Security Payment	85	21	0	22	0	128	128
Joint & 100% Survivor	1,687	443	13	156	502	2,801	2,299
Joint & 100% Survivor 1% Graduated Benefits	5	0	0	0	0	5	5
Joint & 100% Survivor 2% Graduated Benefits	5	1	0	1	2	9	7
Joint & 50% Survivor	944	177	8	73	217	1,419	1,202
Joint & 50% Survivor 1% Graduated Benefits	0	0	0	0	0	0	0
Joint & 50% Survivor 2% Graduated Benefits	2	1	0	1	0	4	4
20 Year C & L	38	17	0	2	20	77	57
10 Year C & L	80	64	0	5	11	160	149
10 Year C & L 1% Graduated Benefits	0	0	0	0	0	0	0
5 Year C & L	14	9	0	2	6	31	25
<b>Total</b>	<b>6,739</b>	<b>2,579</b>	<b>141</b>	<b>538</b>	<b>960</b>	<b>10,957</b>	<b>9,997</b>
Age	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under 50	0	0	17	1	26	44	18
50 - 54	0	0	22	27	22	71	49
55 - 59	126	47	45	153	47	418	371
60 - 64	720	391	56	149	85	1,401	1,316
65 - 69	2,030	699	1	114	118	2,962	2,844
70 - 74	1,626	488	0	61	170	2,345	2,175
75 and Over	2,237	954	0	33	492	3,716	3,224
<b>Total</b>	<b>6,739</b>	<b>2,579</b>	<b>141</b>	<b>538</b>	<b>960</b>	<b>10,957</b>	<b>9,997</b>

\* Includes Rule of 85, Rule of 88 and Rule of 90.

\*\* Includes alternate payees

\*\*\* Total excluding beneficiaries

**North Dakota Public Employees Retirement System – Statistical Section  
Schedule of Average Benefit Payments**

**Schedule of Retired Members by Type of Benefit - PERS  
As of June 30, 2017  
Judges**

Monthly Amount	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under \$400	0	0	0	0	0	0	0
\$400 - \$800	0	0	0	0	1	1	0
\$800 - \$1,200	1	0	0	0	0	1	1
\$1,200 - \$1,600	2	0	0	0	1	3	2
\$1,600 - \$2,000	0	2	0	0	2	4	2
\$2,000 - \$2,400	0	0	0	0	0	0	0
\$2,400 - \$2,800	1	0	0	0	1	2	1
\$2,800 - \$3,200	3	0	0	0	2	5	3
\$3,200 - \$3,600	2	1	0	0	1	4	3
\$3,600 - \$4,000	3	1	0	0	0	4	4
\$4,000 - \$4,400	0	0	0	0	1	1	0
\$4,400 - \$4,800	5	0	0	0	1	6	5
\$4,800 - \$5,200	2	0	0	0	2	4	2
\$5,200 - \$5,600	1	0	0	0	0	1	1
\$5,600 - \$6,000	2	0	0	0	0	2	2
\$6,000 and Over	10	0	1	0	1	12	11
<b>Total</b>	<b>32</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>13</b>	<b>50</b>	<b>37</b>
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	0	0	0	0	4	4	0
Level Social Security Payment	0	0	0	0	0	0	0
Joint & 100% Survivor	20	2	0	0	8	30	22
Joint & 50% Survivor	12	2	1	0	1	16	15
10 Year C & L	0	0	0	0	0	0	0
5 Year C & L	0	0	0	0	0	0	0
<b>Total</b>	<b>32</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>13</b>	<b>50</b>	<b>37</b>
Age	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under 50	0	0	0	0	0	0	0
50 - 54	0	0	0	0	0	0	0
55 - 59	0	0	1	0	0	1	1
60 - 64	0	1	0	0	0	1	1
65 - 69	12	1	0	0	6	19	13
70 - 74	6	0	0	0	3	9	6
75 and Over	14	2	0	0	4	20	16
<b>Total</b>	<b>32</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>13</b>	<b>50</b>	<b>37</b>

\* Includes Rule of 85, Rule of 88 and Rule of 90.

\*\* Includes alternate payees

\*\*\* Total excluding beneficiaries

**North Dakota Public Employees Retirement System – Statistical Section  
Schedule of Average Benefit Payments**

**Schedule of Retired Members by Type of Benefit - PERS  
As of June 30, 2017  
Law Enforcement with Prior Main Service**

Monthly Amount	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under \$200	3	1	0	0	3	7	4
\$200 - \$400	1	1	0	0	2	4	2
\$400 - \$600	4	2	0	1	1	8	7
\$600 - \$800	3	1	0	1	2	7	5
\$800 - \$1,000	3	1	0	2	0	6	6
\$1,000 - \$1,200	8	0	1	1	0	10	10
\$1,200 - \$1,400	2	0	0	0	0	2	2
\$1,400 - \$1,600	7	2	0	0	0	9	9
\$1,600 - \$1,800	3	0	0	0	0	3	3
\$1,800 - \$2,000	1	1	0	1	0	3	3
\$2,000 - \$2,200	4	0	0	2	0	6	6
\$2,200 - \$2,400	2	0	0	2	0	4	4
\$2,400 - \$2,600	1	1	0	0	0	2	2
\$2,600 - \$2,800	2	0	0	0	0	2	2
\$2,800 - \$3,000	1	0	0	0	0	1	1
\$3,000 and Over	11	1	0	4	0	16	16
<b>Total</b>	<b>56</b>	<b>11</b>	<b>1</b>	<b>14</b>	<b>8</b>	<b>90</b>	<b>82</b>
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	25	5	1	5	0	36	36
Level Social Security Payment	1	4	0	1	0	6	6
Joint & 100% Survivor	18	2	0	7	2	29	27
Joint & 100% Survivor 1% Graduated Benefits	1	0	0	0	0	1	1
Joint & 50% Survivor	11	0	0	1	0	12	12
20 Year C & L	0	0	0	0	6	6	0
10 Year C & L	0	0	0	0	0	0	0
5 Year C & L	0	0	0	0	0	0	0
20 Year Certain	0	0	0	0	0	0	0
<b>Total</b>	<b>56</b>	<b>11</b>	<b>1</b>	<b>14</b>	<b>8</b>	<b>90</b>	<b>82</b>
Age	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under 50	0	0	0	0	5	5	0
50 - 54	0	1	0	0	0	1	1
55 - 59	6	1	1	5	0	13	13
60 - 64	15	4	0	7	2	28	26
65 - 69	24	2	0	1	1	28	27
70 - 74	9	3	0	1	0	13	13
75 and Over	2	0	0	0	0	2	2
<b>Total</b>	<b>56</b>	<b>11</b>	<b>1</b>	<b>14</b>	<b>8</b>	<b>90</b>	<b>82</b>

\* Includes Rule of 85, Rule of 88 and Rule of 90.

\*\* Includes alternate payees

\*\*\* Total excluding beneficiaries

**North Dakota Public Employees Retirement System – Statistical Section  
Schedule of Average Benefit Payments**

**Schedule of Retired Members by Type of Benefit - PERS  
As of June 30, 2017  
Law Enforcement without Prior Main Service**

Monthly Amount	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under \$200	1	0	0	0	0	1	1
\$200 - \$400	1	0	0	0	0	1	1
\$400 - \$600	1	0	0	0	0	1	1
\$600 - \$800	0	0	0	0	0	0	0
\$800 - \$1,000	0	0	1	0	0	1	1
\$1,000 - \$1,200	0	0	0	0	0	0	0
\$1,200 - \$1,400	1	0	0	0	0	1	1
\$1,400 - \$1,600	0	0	0	0	0	0	0
\$1,600 - \$1,800	0	0	0	0	0	0	0
\$1,800 - \$2,000	0	0	0	0	0	0	0
\$2,000 - \$2,200	0	0	0	0	0	0	0
\$2,200 - \$2,400	0	0	0	0	0	0	0
\$2,400 - \$2,600	0	0	0	0	0	0	0
\$2,600 - \$2,800	0	0	0	0	0	0	0
\$2,800 - \$3,000	0	0	0	0	0	0	0
\$3,000 and Over	1	0	0	0	0	1	1
<b>Total</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>6</b>
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	1	0	1	0	0	2	2
Level Social Security Payment	0	0	0	0	0	0	0
Joint & 100% Survivor	2	0	0	0	0	2	2
Joint & 50% Survivor	2	0	0	0	0	2	2
10 Year C & L	0	0	0	0	0	0	0
5 Year C & L	0	0	0	0	0	0	0
<b>Total</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>6</b>
Age	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under 50	0	0	1	0	0	1	1
50 - 54	0	0	0	0	0	0	0
55 - 59	0	0	0	0	0	0	0
60 - 64	4	0	0	0	0	4	4
65 - 69	1	0	0	0	0	1	1
70 - 74	0	0	0	0	0	0	0
75 and Over	0	0	0	0	0	0	0
<b>Total</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>6</b>

\* Includes Rule of 85, Rule of 88 and Rule of 90.

\*\* Includes alternate payees

\*\*\* Total excluding beneficiaries



**North Dakota Public Employees Retirement System – Statistical Section  
Schedule of Average Benefit Payments**

**Schedule of Retired Members by Type of Benefit - HPRS  
As of June 30, 2017**

Monthly Amount	Normal	Early	Disability	Service*	Beneficiary**	Total
Under \$200	1	0	0	0	2	3
\$200 - \$400	0	0	0	0	4	4
\$400 - \$600	0	0	0	0	0	0
\$600 - \$800	0	0	0	0	2	2
\$800 - \$1,000	1	0	0	0	3	4
\$1,000 - \$1,200	1	0	0	0	5	6
\$1,200 - \$1,400	1	0	0	0	7	8
\$1,400 - \$1,600	0	0	1	0	2	3
\$1,600 - \$1,800	0	0	0	0	2	2
\$1,800 - \$2,000	0	0	0	0	0	0
\$2,000 - \$2,200	1	1	1	1	1	5
\$2,200 - \$2,400	4	0	1	0	0	5
\$2,400 - \$2,600	3	0	0	4	2	9
\$2,600 - \$2,800	1	0	0	5	0	6
\$2,800 - \$3,000	0	0	1	5	0	6
\$3,000 - \$3,200	3	0	0	7	0	10
\$3,200 - \$3,400	1	0	0	2	0	3
\$3,400 - \$3,600	1	0	0	6	1	8
\$3,600 - \$3,800	2	0	0	2	0	4
\$3,800 - \$4,000	0	0	0	3	0	3
\$4,000 - \$4,200	0	0	0	2	1	3
\$4,200 - \$4,400	0	0	0	4	0	4
\$4,400 - \$4,600	1	0	0	4	0	5
\$4,600 - \$4,800	1	0	0	4	0	5
\$4,800 - \$5,000	0	0	0	2	0	2
\$5,000 and Over	2	0	0	15	0	17
<b>Total</b>	<b>24</b>	<b>1</b>	<b>4</b>	<b>66</b>	<b>32</b>	<b>127</b>
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total
Life	1	0	0	0	5	6
Level Social Security Payment	0	0	0	0	0	0
Joint & 100% Survivor	9	0	0	39	3	51
Joint & 50% Survivor	14	1	4	27	24	70
5 Year C & L	0	0	0	0	0	0
10 Year C & L	0	0	0	0	0	0
<b>Total</b>	<b>24</b>	<b>1</b>	<b>4</b>	<b>66</b>	<b>32</b>	<b>127</b>
Age	Normal	Early	Disability	Service*	Beneficiary**	Total
Under 50	0	0	0	0	1	1
50 - 54	0	0	4	9	1	14
55 - 59	5	0	0	13	0	18
60 - 64	3	0	0	19	4	26
65 - 69	4	0	0	11	5	20
70 - 74	0	0	0	12	5	17
75 - 79	1	1	0	2	6	10
80 - 84	6	0	0	0	5	11
85 - 89	5	0	0	0	4	9
90 and Over	0	0	0	0	1	1
<b>Total</b>	<b>24</b>	<b>1</b>	<b>4</b>	<b>66</b>	<b>32</b>	<b>127</b>

\* Includes Rule of 80.

\*\* Includes alternate payees

**North Dakota Public Employees Retirement System – Statistical Section  
Schedule of Average Benefit Payments**

**Schedule of Retired Members by Type of Benefit -  
Job Service Retirement Plan as of June 30, 2017**

Monthly Amount	Normal	Early	Disability	Beneficiary*	Total
Under \$200	9	0	0	1	10
\$200 - \$400	11	0	0	1	12
\$400 - \$600	5	0	0	3	8
\$600 - \$800	9	0	0	2	11
\$800 - \$1,000	6	1	0	1	8
\$1,000 - \$1,200	9	0	0	4	13
\$1,200 - \$1,400	7	0	3	2	12
\$1,400 - \$1,600	14	0	1	0	15
\$1,600 - \$1,800	8	0	0	2	10
\$1,800 - \$2,000	11	0	0	2	13
\$2,000 - \$2,200	8	0	0	3	11
\$2,200 - \$2,400	8	0	0	0	8
\$2,400 - \$2,600	11	0	0	0	11
\$2,600 - \$2,800	9	0	0	2	11
\$2,800 - \$3,000	7	0	0	3	10
\$3,000 - \$3,200	12	0	0	1	13
\$3,200 - \$3,400	3	0	0	0	3
\$3,400 - \$3,600	5	0	0	0	5
\$3,600 - \$3,800	3	0	0	1	4
\$3,800 - \$4,000	1	0	0	0	1
\$4,000 - \$4,200	5	0	0	0	5
\$4,200 - \$4,400	0	0	0	0	0
\$4,400 - \$4,600	0	0	0	1	1
\$4,600 - \$4,800	1	0	0	0	1
\$4,800 - \$5,000	1	0	0	0	1
\$5,000 and Over	0	0	0	2	2
<b>Total</b>	<b>163</b>	<b>1</b>	<b>4</b>	<b>31</b>	<b>199</b>
Payment Option	Normal	Early	Disability	Beneficiary*	Total
Life	44	0	0	12	56
Joint & 55% Survivor	34	1	3	7	45
Joint & 75% Survivor	20	0	0	5	25
Joint & 100% Survivor	17	0	0	1	18
10 Year C & L	20	0	1	4	25
15 Year C & L	2	0	0	1	3
20 Year C & L	26	0	0	1	27
<b>Total</b>	<b>163</b>	<b>1</b>	<b>4</b>	<b>31</b>	<b>199</b>
Age	Normal	Early	Disability	Beneficiary*	Total
Under 50	0	0	0	0	0
50 - 54	0	0	0	0	0
55 - 59	0	0	0	0	0
60 - 64	13	0	1	3	17
65 - 69	28	0	0	9	37
70 - 74	44	0	0	5	49
75 - 79	25	0	2	3	30
80 - 84	22	0	0	5	27
85 - 89	20	1	1	3	25
90 and Over	11	0	0	3	14
<b>Total</b>	<b>163</b>	<b>1</b>	<b>4</b>	<b>31</b>	<b>199</b>

\* Includes 2 alternate payees

**North Dakota Public Employees Retirement System – Statistical Section  
Schedule of Average Benefit Payments**

**Monthly Benefit Amount -  
Retiree Health Insurance Credit Plan as of June 30, 2017**

Age	Under \$30	\$30-\$59	\$60-\$89	\$90-\$119	\$120-\$149	\$150-\$179	\$180 and over	Total
Under 50	10	14	9	1	0	1	0	35
50 - 54	13	10	16	7	8	27	3	84
55 - 59	51	55	29	14	90	183	30	452
60 - 64	163	221	139	96	339	343	155	1,456
65 - 69	369	649	461	364	573	370	267	3,053
70 - 74	318	501	405	375	415	221	142	2,377
75 - 79	207	348	318	241	246	133	89	1,582
80 - 84	131	257	274	146	156	108	72	1,144
85 - 89	68	168	151	101	75	53	44	660
90 and Over	20	87	111	72	51	26	22	389
<b>Total</b>	<b>1,350</b>	<b>2,310</b>	<b>1,913</b>	<b>1,417</b>	<b>1,953</b>	<b>1,465</b>	<b>824</b>	<b>11,232</b>

**Schedule of Average Benefit Payments - As of June 30  
Retiree Health Insurance Credit Fund**

	<u>Total</u>
<b>2013</b>	
Total Participants	4,635
Average Monthly Benefits	\$119
<b>2014</b>	
Total Participants	4,828
Average Monthly Benefits	\$119
<b>2015</b>	
Total Participants	5,212
Average Monthly Benefits	\$121
<b>2016</b>	
Total Participants	10,320
Average Monthly Benefits	\$100
<b>2017</b>	
Total Participants	11,232
Average Monthly Benefits	\$97

**North Dakota Public Employees Retirement System – Statistical Section  
Schedule of Average Benefit Payments**

**Schedule of Average Benefit Payments - PERS As of June 30**

**Main System**

Years of Credited Service

	< 10	10-14	15-19	20-24	25-29	>=30	Total
<b>2013</b>							
Number of Retirees	1,611	1,258	1,146	1,136	1,174	1,519	7,844
Average Monthly Benefits	\$ 242	\$ 423	\$ 626	\$ 1,031	\$ 1,503	\$ 2,270	\$ 1,023
Average Years of Service	6.10	12.32	17.35	22.50	27.26	35.01	19.88
<b>2014</b>							
Number of Retirees	1,760	1,330	1,193	1,191	1,252	1,662	8,388
Average Monthly Benefits	\$ 248	\$ 440	\$ 647	\$ 1,068	\$ 1,547	\$ 2,345	\$ 1,061
Average Years of Service	6.07	12.32	17.33	22.53	27.25	35.07	19.91
<b>2015</b>							
Number of Retirees	1,957	1,418	1,231	1,273	1,352	1,863	9,094
Average Monthly Benefits	\$ 290	\$ 462	\$ 674	\$ 1,123	\$ 1,616	\$ 2,462	\$ 1,128
Average Years of Service	5.90	12.32	17.30	22.55	27.27	35.08	19.93
<b>2016</b>							
Number of Retirees	1,848	1,471	1,268	1,336	1,470	2,095	9,488
Average Monthly Benefits	\$ 255	\$ 469	\$ 684	\$ 1,151	\$ 1,613	\$ 2,432	\$ 1,163
Average Years of Service	6.25	12.33	17.29	22.57	27.27	35.17	20.61
<b>2017</b>							
Number of Retirees	1,940	1,529	1,324	1,395	1,557	2,252	9,997
Average Monthly Benefits	\$ 260	\$ 484	\$ 714	\$ 1,184	\$ 1,657	\$ 2,507	\$ 1,207
Average Years of Service	6.26	12.33	17.28	22.57	27.29	35.33	20.75

**Schedule of Average Benefit Payments - PERS As of June 30**

**Judges**

Years of Credited Service

	< 10	10-14	15-19	20-24	25-29	>=30	Total
<b>2013</b>							
Number of Retirees	1	5	8	4	7	2	27
Average Monthly Benefits	\$ 1,057	\$ 2,445	\$ 4,124	\$ 4,740	\$ 4,404	\$ 3,740	\$ 3,835
Average Years of Service	3.33	11.92	17.54	23.78	26.56	31.86	20.82
<b>2014</b>							
Number of Retirees	1	5	8	5	7	3	29
Average Monthly Benefits	\$ 1,057	\$ 2,445	\$ 4,124	\$ 5,303	\$ 4,404	\$ 5,258	\$ 4,117
Average Years of Service	3.33	11.92	17.54	23.75	26.56	31.86	20.82
<b>2015</b>							
Number of Retirees	1	6	8	5	9	4	33
Average Monthly Benefits	\$ 1,057	\$ 2,817	\$ 4,288	\$ 5,303	\$ 5,097	\$ 5,887	\$ 4,491
Average Years of Service	3.33	12.25	17.73	23.78	26.82	32.27	21.46
<b>2016</b>							
Number of Retirees	1	6	8	5	9	4	33
Average Monthly Benefits	\$ 1,057	\$ 2,817	\$ 4,288	\$ 5,303	\$ 5,097	\$ 5,887	\$ 4,491
Average Years of Service	3.33	12.25	17.73	23.78	26.82	32.27	21.46
<b>2017</b>							
Number of Retirees	3	3	5	10	8	8	37
Average Monthly Benefits	\$ 2,467	\$ 2,773	\$ 3,545	\$ 5,380	\$ 4,598	\$ 6,644	\$ 4,789
Average Years of Service	6.92	11.58	17.62	23.07	26.92	36.77	23.89

**North Dakota Public Employees Retirement System – Statistical Section  
Schedule of Average Benefit Payments**

**Schedule of Average Benefit Payments - PERS As of June 30  
Law Enforcement with Prior Main Service<sup>(1)</sup>**

	Years of Credited Service						Total
	< 10	10-14	15-19	20-24	25-29	>=30	
<b>2013</b>							
Number of Retirees	6	5	3	9	12	10	45
Average Monthly Benefits	\$ 500	\$ 423	\$ 626	\$ 1,031	\$ 1,503	\$ 2,270	\$ 1,738
Average Years of Service	7.10	12.70	18.94	21.57	27.10	33.00	22.49
<b>2014</b>							
Number of Retirees	6	5	3	10	12	10	46
Average Monthly Benefits	\$ 500	\$ 939	\$ 1,161	\$ 1,307	\$ 1,997	\$ 3,129	\$ 1,738
Average Years of Service	7.10	12.70	18.64	21.64	27.18	33.00	22.55
<b>2015</b>							
Number of Retirees	10	9	5	13	15	13	65
Average Monthly Benefits	\$ 981	\$ 865	\$ 1,158	\$ 1,554	\$ 1,958	\$ 3,141	\$ 1,751
Average Years of Service	5.10	12.45	18.56	21.94	27.12	32.78	21.14
<b>2016</b>							
Number of Retirees	10	10	6	16	15	14	71
Average Monthly Benefits	\$ 455	\$ 795	\$ 1,239	\$ 1,635	\$ 1,958	\$ 2,992	\$ 1,653
Average Years of Service	5.84	12.63	18.43	22.08	27.12	32.89	21.35
<b>2017</b>							
Number of Retirees	12	11	7	17	17	18	82
Average Monthly Benefits	\$ 528	\$ 790	\$ 1,291	\$ 1,770	\$ 2,180	\$ 3,261	\$ 1,828
Average Years of Service	6.22	12.58	18.13	22.09	27.38	33.03	21.65

<sup>(1)</sup> Includes former National Guard members.

**Schedule of Average Benefit Payments - PERS As of June 30  
Law Enforcement without Prior Main Service**

	Years of Credited Service						Total
	< 10	10-14	15-19	20-24	25-29	>=30	
<b>2013</b>							
Number of Retirees	1	0	0	0	0	0	1
Average Monthly Benefits	\$ 816	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 816
Average Years of Service	0.58	0.00	0.00	0.00	0.00	0.00	0.58
<b>2014</b>							
Number of Retirees	1	0	0	0	0	0	1
Average Monthly Benefits	\$ 816	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 816
Average Years of Service	0.58	0.00	0.00	0.00	0.00	0.00	0.58
<b>2015</b>							
Number of Retirees	1	0	0	0	0	0	1
Average Monthly Benefits	\$ 816	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 816
Average Years of Service	0.58	0.00	0.00	0.00	0.00	0.00	0.58
<b>2016</b>							
Number of Retirees	2	0	0	0	0	0	2
Average Monthly Benefits	\$ 544	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 544
Average Years of Service	2.29	0.00	0.00	0.00	0.00	0.00	2.29
<b>2017</b>							
Number of Retirees	4	1	0	0	1	0	6
Average Monthly Benefits	\$ 390	\$ 1,204	\$ -	\$ -	\$ 3,126	\$ -	\$ 981
Average Years of Service	4.12	12.58	0.00	0.00	26.17	0.00	9.21

**North Dakota Public Employees Retirement System – Statistical Section  
Schedule of Average Benefit Payments**

**Schedule of Average Benefit Payments - PERS As of June 30**

**HPRS**

Years of Credited Service

	< 10	10-14	15-19	20-24	25-29	>=30	Total
<b>2013</b>							
Number of Retirees	1	1	4	6	58	16	86
Average Monthly Benefits	\$ 1,456	\$ 2,054	\$ 2,135	\$ 2,598	\$ 3,277	\$ 3,708	\$ 3,227
Average Years of Service	2.25	11.17	17.10	22.14	27.92	31.31	27.15
<b>2014</b>							
Number of Retirees	1	1	4	6	56	17	85
Average Monthly Benefits	\$ 1,456	\$ 2,054	\$ 2,135	\$ 2,598	\$ 3,315	\$ 4,222	\$ 3,354
Average Years of Service	2.25	11.17	17.10	22.14	27.89	31.27	27.15
<b>2015</b>							
Number of Retirees	1	1	5	5	66	18	96
Average Monthly Benefits	\$ 1,456	\$ 2,054	\$ 2,135	\$ 2,777	\$ 3,751	\$ 4,359	\$ 3,698
Average Years of Service	2.25	11.17	17.18	22.20	27.84	31.16	27.18
<b>2016</b>							
Number of Retirees	1	1	4	4	63	19	92
Average Monthly Benefits	\$ 1,456	\$ 2,054	\$ 2,135	\$ 2,741	\$ 3,756	\$ 4,387	\$ 3,728
Average Years of Service	2.25	11.17	17.11	22.46	27.90	31.22	27.42
<b>2017</b>							
Number of Retirees	3	0	5	6	62	18	94
Average Monthly Benefits	\$ 809	\$ -	\$ 2,315	\$ 2,975	\$ 3,886	\$ 4,359	\$ 3,737
Average Years of Service	2.36	0.00	17.18	22.24	27.84	31.16	26.74

**Schedule of Average Benefit Payments - PERS As of June 30**

**Job Service Plan**

	Retirement Plan	Travelers Annuity	Total
<b>2013</b>			
Number of Retirees	137	76	213
Average Monthly Benefits	\$ 2,289	\$ 710	\$ 1,726
<b>2014</b>			
Number of Retirees	140	73	213
Average Monthly Benefits	\$ 2,359	\$ 757	\$ 1,810
<b>2015</b>			
Number of Retirees	142	64	206
Average Monthly Benefits	\$ 2,361	\$ 770	\$ 1,866
<b>2016</b>			
Number of Retirees	142	64	206
Average Monthly Benefits	\$2,360	\$763	\$1,864
<b>2017</b>			
Number of Retirees	139	60	199
Average Monthly Benefits	\$2,382	\$770	\$1,896

## Stage Agency Employers

Adjutant General ND National Guard Aeronautics Commission Attorney General's Office Bank Of North Dakota Beef Commission Bismarck State College Board Of Medical Examiners Board Of Pharmacy Career & Technical Education Central Services Dairy Promotion Commission Department Of Commerce Department Of Corrections And Rehabilitation Department Of Corrections Transitional Services Department Of Financial Institutions Department Of Human Services Department Of Transportation Dept Of Agriculture Dickinson State University Education Standards & Practice Electrical Board Facility Management Field Services Division Game & Fish Department Governor's Office Highway Patrol Historical Society Housing Finance Agency Indian Affairs Commission Industrial Commission Information Technology Dept Insurance Department	James River Correctional Ctr Job Service North Dakota Juvenile Services - DOOCR Lake Region State College Land Department Legislative Assembly Legislative Council Life Skills and Transition Center Mayville State University Milk Marketing Board Mill & Elevator Association Minot State University ND Barley Council ND Board Of Nursing ND Corn Utilization Council ND Council On The Arts ND Department Of Health ND Department Of Labor ND Oilseed Council ND Public Employees Retirement System ND Securities Department ND Soybean Council ND St College Of Science ND State Board Of Accountancy ND State Board Of Cosmetology ND State Library ND State Plumbing Board ND Supreme Court ND System Information Technology Services ND University System Office ND Veterans Home ND Wheat Commission	ND Youth Correctional Center North Dakota State Hospital North Dakota State University Office Of Administrative Hearings Office Of Management & Budget Parks & Recreation Department Protection & Advocacy Project Public Finance Authority Public Instruction Public Service Commission Racing Commission Real Estate Commission Retirement & Investment Office Rough Rider Industries School For The Blind School for the Deaf Secretary Of State Soil Conservation Committee State Auditor's Office State Board Of Law Examiners State Fair Association State Penitentiary State Seed Department State Treasurer's Office Tax Department Tobacco Prevention/Control Committee University Of North Dakota Valley City State University Veterans Affairs Department Water Commission Williston State College Workforce Safety & Insurance
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**Total State Employers = 96**

## County Employers

Adams County Barnes County Benson County Billings County Bottineau County Bowman County Burke County Burleigh County Cass County Cavalier County Dickey County Divide County Dunn County Eddy County Emmons County Foster County Grand Forks County	Grant County Griggs County Hettinger County Lamoure County Logan County Mchenry County Mcintosh County Mckenzie County Mclean County Mercer County Morton County Mountrail County Nelson County Oliver County Pembina County Pierce County Ramsey County	Ransom County Renville County Richland County Rolette County Sheridan County Slope County Stark County Steele County Stutsman County Towner County Traill County Walsh County Ward County Wells County Williams County
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**Total County Employers = 49**

## School District Employers

Anamoose Public School District #14  
Apple Creek Elementary School  
Beach Public School District #3  
Belcourt School District #7  
Belfield Public School #13  
Beulah Public School #27  
Billings County School District  
Bismarck Public Schools  
Bottineau Public School  
Bowman County School District #1  
Burke Central School  
Burleigh County Special Education Unit  
Carrington School District #49  
Cavalier Public Schools  
Center Stanton Public School  
Central Cass Public School District #7  
Dakota Prairie Public School  
Devils Lake Public School  
Dickinson Public Schools  
Divide County School Dist #1  
Drake Public School District  
Drayton Public School #19  
Dunseith School District #1  
East Central Special Education Unit  
Ellendale Public School District #40  
Enderlin Area School District #24  
Fargo Public Schools  
Fort Totten School District # 30  
Garrison Public School District #51  
Glen Ullin Public School #48  
Glenburn School District  
Grafton Public School District #3  
Great Northwest Education Cooperative  
Halliday Public School  
Harvey Public School Dist #38  
Hazen Public School District #3  
Hillsboro Public School  
James River Multidistrict Special Education Unit  
Jamestown Public School District #1  
Kenmare Public School District #28  
Killdeer Public School #16  
Kindred Public School District #2  
Kulm Public School District #7  
Lake Region Special Education Unit  
Lakota Public School District # 66  
Lamoure School District #8  
Larimore Public School District #44  
Leeds Public School District 6  
Lewis & Clark Public Schools  
Lidgerwood Public School  
Linton Public School District #36  
Lisbon Public School  
Lonetree Special Education Unit  
Mandan Public School District #1  
Mandaree Public School #36  
Manvel Public School  
Maple Valley School District  
Mapleton Public School  
Max Public School  
Mcclusky Public Schools  
Mckenzie Cty Public School #1  
Medina Public School District #3  
Midkota School  
Midway Public School District #128  
Milnor Public School District #2  
Minot Public School District #1  
Minto Public School District #20  
Mohall Lansford Sherwood School  
Mott/Regent School Dist #1  
Mt Pleasant School Dist #4  
Napoleon Public School District #2  
New Public School #8  
New Rockford Sheyenne Public School  
New Salem Almont School District #49  
New Town Public School District  
Newburg United Public School  
North Border School District # 100  
North Sargent School District #3  
North Valley Career and Tech Center  
Northern Cass School District # 97  
Northern Plains Special Ed Unit  
Oakes Public Schools  
Oliver-Mercer Special Education Unit  
Park River Area School District  
Peace Garden Special Services  
Pingree-Buchanan School District  
Richland School District # 44  
Rolette County Alt Ed Consortium  
Rolette Public School  
Roughrider Education Services Program (RESP)  
Rugby Public School District #5  
Rural Cass Special Education Unit  
Sawyer Public School  
Sheyenne Valley Career And Tech Center  
Sheyenne Valley Special Education Unit  
Solen Public School Dist #3  
Souris Valley Special Services  
South East Education Cooperative  
South Heart Public School District #9  
South Prairie School District #70  
St John School District #3  
Stanley Community Public School District # 2  
Surrey Schools  
Sw Special Education Unit  
Tgu School District #60  
Thompson Public School  
Tioga Public School District #15  
Turtle Lake Mercer School District #72  
Underwood School District #8  
United Public School District # 7  
Valley City Public School  
Velva Public School  
Wahpeton Public School District 37  
Warwick Public School  
Washburn Public School  
West Fargo Public School #6  
West River Student Services  
Westhope Public School #17  
White Shield School Dist #85  
Williston Public School #1  
Wilmac Multidistrict Special Education Unit  
Wilton Public School District  
Yellowstone School District # 14  
Zeeland Public Schools

**Total School District Employers = 124**



**North Dakota Public Employees Retirement System – Statistical Section  
Schedule of Participating Employers**

## City Employers

City of Alexander	City of Grand Forks	City of McClusky	City of Sawyer
City of Ashley	City of Granville	City of Medora	City of Scranton
City of Beach	City of Gwinner	City of Michigan	City of Sherwood
City of Belfield	City of Halliday	City of Minto	City of St John
City of Berthold	City of Hankinson	City of Mohall	City of Stanley
City of Bowman	City of Harvey	City of Mott	City of Surrey
City of Burlington	City of Harwood	City of Napoleon	City of Thompson
City of Carrington	City of Hatton	City of Neche	City of Tioga
City of Carson	City of Hettinger	City of New England	City of Towner
City of Cavalier	City of Jamestown	City of New Leipzig	City of Underwood
City of Cooperstown	City of Kenmare	City of New Rockford	City of Velva
City of Crosby	City of Killdeer	City of New Salem	City of Wahpeton
City of Devils Lake	City of Kulm	City of New Town	City of Walhalla
City of Dodge	City of Lakota	City of Northwood	City of Watford City
City of Drayton	City of Lamoure	City of Oakes	City of West Fargo
City of Elgin	City of Larimore	City of Park River	City of Westphala
City of Ellendale	City of Lidgerwood	City of Pembina	City of Williston
City of Emerado	City of Lincoln	City of Powers Lake	City of Wilton
City of Fargo	City of Linton	City of Ray	City of Wishek
City of Fessenden	City of Lisbon	City of Regent	City of Zeeland
City of Finley	City of Maddock	City of Rhame	
City of Glenburn	City of Mapleton	City of Rolla	
City of Grafton	City of Mcville	City of Rugby	

**Total City Employers = 89**

## Other Political Subdivision Employers

Agassiz Water Users District	Grafton Park District	Rolette County Public Health
Barnes County Soil Conservation District	Grand Forks County Water Resource District	Rolette County Soil Conservation District
Bismarck Rural Fire Protection	Grand Forks Park District	Sargent County District Health Unit
Bowman City Park Board	Grand Forks Public Library	Southeast Region Career & Technology Center
Burleigh County Council On Aging	Grand Forks-E Grand Forks Metropolitan Planning	Southwest Water Authority
Burleigh County Soil Conservation District	Greater Ramsey Water District	Southeast Water Users District
Carnegie Regional Library	Griggs County Public Library	Southwestern District Health Unit
Cass County Soil Conservation District	James River Soil Conservation District	Stark & Billings Soil Conservation District
Cass County Water Resource District	James River Valley Library System	Stutsman County Housing Authority
Cavalier County Health District	Jamestown Parks And Recreation District	Towner County Public Health Unit
Cavalier County Housing Authority	Jamestown Regional Airport	Traill County Water Resource District
Cavalier County Job Development Authority	Kidder County District Health Unit	Traill District Health Unit
Central Plains Water District	Lake Metigoshe Recreation Service District	Traill Rural Water District
Central Valley Health Unit	Lake Region District Health Unit	Tri-Cities Joint Job Development Authority
City County Health District	Mcintosh County Housing Authority	Upper Missouri Health Unit
Consolidated Waste Ltd	McIntosh District Health Unit	Wahpeton Park Board
Crosby Park District	Mercer County Soil Conservation District	Walsh County Health District
Custer Health Unit	Minot Rural Fire Department	Walsh County Housing Authority
Devils Lake Basin Joint Water Resource Board	Nelson-Griggs District Health Unit	Walsh County Water Resource District
Devils Lake Park Board	North Central Soil Conservation District	Ward County Water Resource District
Dickey County Health District	North Dakota Firefighters Association	Watford City Park District
Dunseith Community Nursing Home	R & T Water Supply Commerce Authority	Wells County Dist Health Unit
Emmons County Public Health	Ramsey County Housing Authority	West Fargo Park District
Emmons County Soil Conservation District	Ramsey County Soil Conservation District	Western Area Water Supply Authority
Fargo Park District	Ramsey County Water Resource District	Williams County Soil Conservation District
First District Health	Ransom County Soil Cons Dist	Williston Housing Authority
Garrison Diversion Conservancy District	Red River Joint Water Resource District	Williston Rural Fire Protection District #1

**Total Other Political Subdivision Employers = 81**

## Principle Participating Employers June 30, 2017

<u>Participating Employer</u>	<u>Covered Employees</u>	<u>Rank</u>	<u>% of Total System</u>
Department of Human Services	1,263	1	5.55%
University of North Dakota	993	2	4.37%
Department of Transportation	983	3	4.32%
Bismarck Public Schools	849	4	3.73%
North Dakota State University	805	5	3.54%
Fargo Public Schools	717	6	3.15%
Minot Public School District #1	592	7	2.60%
West Fargo Public School #6	588	8	2.59%
City of Fargo	550	9	2.42%
City of Grand Forks	379	10	1.67%
Remaining Employers	15,023		66.06%
<b>Total Covered Employees*</b>	<b>22,742</b>		<b>100.00%</b>

*\*Total covered employees represents the number of employees in a contributing status as of June 30, 2017 in the Main retirement plan*

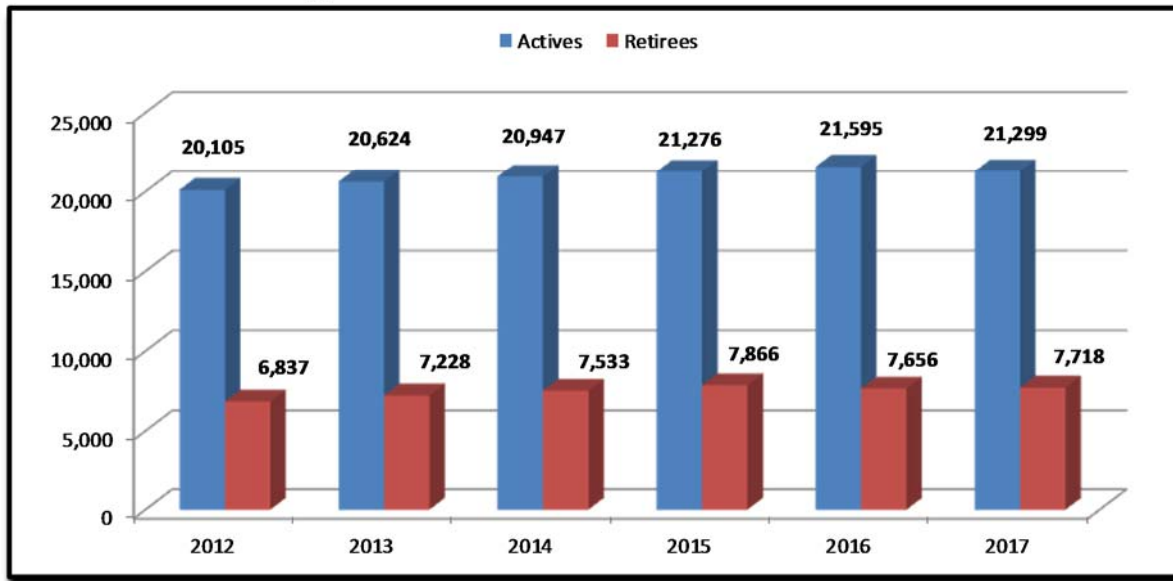
## Deferred Compensation Program Schedule of Assets By Provider

	<u>6/30/13</u>	<u>6/30/14</u>	<u>6/30/15</u>	<u>6/30/16</u>	<u>6/30/17</u>
AIG VALIC	\$11,137,291	\$10,599,979	\$10,016,937	\$9,113,556	\$9,982,842
American Trust Center	8,654,834	11,100,596	11,735,069	11,386,469	11,857,349
AXA Equitable	20,253,226	20,837,719	20,625,431	17,112,366	17,201,441
Bank of North Dakota	5,297,216	5,037,014	5,297,281	5,723,463	5,590,301
Commonwealth Annuity & Life Insurance Co. (Formerly Chase Financial/Kemper)	7,589,208	8,839,687	9,242,801	8,601,614	9,353,331
Mass Mutual (formerly Hartford)	42,080,983	49,860,107	48,872,979	48,584,792	56,773,497
ING (Formerly Aetna)	1,719,510	1,867,908	1,887,364	1,848,403	1,963,666
Jackson National Life	3,534,630	4,726,895	4,695,001	5,114,883	6,467,238
Kansas City Life (formerly Sunset Life)	142,142	156,237	171,730	188,193	203,843
Lincoln National	5,491,725	6,185,369	6,373,463	5,711,133	6,196,000
NDPERS Companion Plan <sup>(1)</sup>	49,850,857	64,234,247	72,705,990	77,545,379	97,918,662
Nationwide Life Insurance	9,798,394	12,369,171	13,574,078	14,553,736	16,880,532
New York Life <sup>(1)</sup>	320,892	348,718	332,847	327,802	224,176
Symetra (Formerly Safeco)	274,712	296,839	168,934	155,178	168,029
Waddell & Reed Financial Services	<u>8,153,702</u>	<u>10,288,488</u>	<u>9,996,846</u>	<u>8,425,708</u>	<u>9,252,315</u>
<b>Total</b>	<b>\$174,299,322</b>	<b>\$206,748,974</b>	<b>\$215,696,751</b>	<b>\$214,392,675</b>	<b>\$250,033,223</b>

<sup>(1)</sup> As of January 1, 1999 the System is the trustee for these deferred compensation assets and is reporting them as a trust fund in the June 30, 2017 and June 30, 2016 financial statements

*All other assets are being held in trust by the respective provider company, for the exclusive benefit of participants and their beneficiaries. Accordingly, these assets are not included in the System's financial statements*

## GROUP HEALTH INSURANCE PROGRAM Average Number of Contracts in Force



## Health Insurance Premium Active State Contracts

