2020 COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE FISCAL YEARS ENDED JUNE 30, 2020 AND JUNE 30, 2019



NORTH DAKOTA
PUBLIC EMPLOYEES RETIREMENT SYSTEM

AN AGENCY OF THE STATE OF NORTH DAKOTA

North Dakota Public Employees Retirement System An Agency of the State of North Dakota

Comprehensive Annual Financial Report

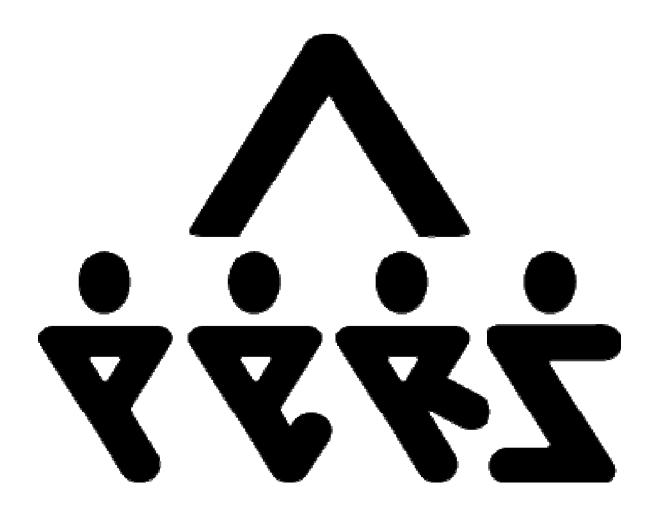
For the Fiscal Years Ended June 30, 2020 and June 30, 2019

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Prepared by the staff of the North Dakota Public Employees Retirement System 400 East Broadway, Suite 505, Bismarck, North Dakota 58501 701-328-3900 • Toll-Free: 1-800-803-7377 • E-mail: ndpers-info@nd.gov • https://ndpers.nd.gov

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INTRODUCTORY SECTION



Public Pension Coordinating Council

Recognition Award for Administration 2020

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)

Alan Heline



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, 2019

Christopher P. Morrill

Executive Director/CEO



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

Scott Miller Executive Director (701) 328-3900 1-800-803-7377

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December 3, 2020

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, 2020. 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 principles (GAAP) require that management provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. 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, 2020.

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 and its agencies, and various participating political subdivisions. PERS also covers Supreme and District Court Judges and public safety officers, including participating political subdivision police, firefighters, and correctional officers as well as retirees of the National Guard plan. 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 23,495 contributing members and 13,092 retirees and beneficiaries currently receiving benefits. HPRS has 154 contributing members and 133 retirees and beneficiaries. The Job Service Plan has 5 contributing members and 134 retirees. The employers participating in PERS include 97 state agencies and 364 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. Eligibility then reverted back to non-classified employees. The Plan has 93 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, and closed to new entrants effective January 1, 2020. 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 23,495 contributing members and 13,092 retired participants currently receiving benefits.

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

Uniform Group Insurance Program

Group Health Insurance. The System began administering the group health insurance plan in 1971. There are 26,062 active and retired contracts under this plan as of June 30, 2020. Total covered lives, including spouses and dependents, are 60,791. As of June 30, 2020 there were 143 political subdivisions participating in the group health program. The health insurance premiums paid to Sanford Health Plan for the fiscal year ended June 30, 2020 totaled \$341.6 million. This last year, the System continued its efforts to reduce the trend in health care costs by promoting wellness through online 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. New initiatives include a Diabetes Prevention Program and opioid management program as well as a value based care arrangement coordinated with Sanford Health Plan.

<u>Group Life Insurance.</u> The System began administering the group life insurance plan in 1971. There are 18,336 active and 3,239 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, 2020 totaled \$3.7 million. As of fiscal year end, there is \$1.859 billion of life insurance in force for all participants covered by this plan.

<u>Voluntary Insurance Products.</u> 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 11,916 participants in the dental plan and 12,408 participants in the vision plan. NDPERS' administration of the long term care plan was discontinued as of January 1, 2019.

<u>Employee Assistance Program.</u> 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 15,012 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 \$139.3 million; provider companies hold the remaining plan assets of \$167.1 million in custodial accounts for the exclusive benefit of participants and their beneficiaries. Approximately 14,044 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 2,801 participants in the medical and dependent care spending accounts. Employee contributions to the spending accounts totaled \$5.54 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

- Updated actuarial assumptions based on the experience study, including the long term rate of return
- Submitted several options for consideration to the Legislative Employee Benefits Program Committee to address the funded status of the retirement plan
- Requested non-companion plan deferred compensation providers to sign an amendment to the contract requiring them to act as fiduciaries on behalf of our membership and eliminated new enrollments after January 1, 2021 for those that did not sign the agreement
- · Transitioned the Retiree Health Insurance Credit plan year to a calendar year
- Refined service purchase cost calculation methodologies for members with multiple service purchases
- Continued to de-risk the Job Service Retirement Plan's investment portfolio by adopting and implementing a more conservative asset allocation

Group Insurance

- · Issued a request for proposal for the Health plan
- Renewed our FlexComp, Dental, Vision, and Life insurance contracts with the incumbent providers
- Continued to work with our participating employers on compliance with the provisions of the Affordable Care Act.
- · Implemented a value-based care option in the health plan
- Began offering a high deductible health plan for political subdivisions
- Implemented pre-tax HSA employee deductions for members of the HDHP
- Added an opioid management program to the health and Medicare Part D plans.

Administrative

- Developed a secure file transfer process for employers submitting confidential information to NDPERS
- · Submitted administrative rule changes
- Implemented a benefit enrollment outbound file for employers that are on the state's central payroll program to eliminate dual processing for our employers
- Implemented a daily feed to bring in Higher Ed's demographic information on new hired, eliminate dual processing for that population
- Offered our Pre-Retirement Education Program and Financial Essentials Workshop virtually through a TEAMS Live event with a record number of attendees
- Partnered with HRMS to help implement the electronic employee on-boarding process
- Developed a comprehensive annual communication plan to strategize the best way/time to communicate with our membership

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 controls 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 2020 and 2019:

(Millions) Revenue Type Employee Contributions Employer Contributions Investment Income Total	Fiscal Year 2020 \$ 83.0 87.7 106.3 \$277.0	Fiscal Year 2019 \$ 79.7 83.7 170.3 \$ 333.7	Change in \$ s \$ 3.3 4.0 (64.0) \$ (56.7)	Percentage <u>Change</u> 4.1% 4.8 <u>(37.6)</u> (17.0)%
Expense Type Benefits Refunds & Transfers Administrative Expenses Total	\$214.5 14.2 <u>2.8</u> \$231.5	\$195.6 12.2 <u>2.6</u> \$210.4	\$ 18.9 2.0 .2 \$ 21.1	9.7% 16.4

The decrease in revenues reflects weaker 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, 2020 actuarial valuation reports the actuarial value of assets for PERS at \$3,261 million, which is 69.1% of the actuarial accrued liabilities of \$4,717 million. The actuarial value of assets for HPRS is \$84.9 million, which is 71.2% of the actuarial accrued liabilities of \$119.3. The Job Service Plan is fully funded. The actuarial value of assets for the Job Service Plan is \$97.0 million, which is 151.0% of the actuarial present value of benefits of \$64.2 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 64.6% of the actuarial accrued liability. The Retiree Health Implicit Subsidy is not advance funded. As of June 30, 2020 the annual gross normal cost for this plan is \$4.7 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 Plans. 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 fair value of assets for PERS and HPRS as of June 30, 2020 is \$3.2 billion, which is an increase of 1.9% from the previous year. The fair value of assets for Job Service as of June 30, 2020 is \$95.3 million, a decrease of 2.0% from the previous year. During the fiscal year ended June 30, 2020 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 3.41% for the fiscal year ended June 30, 2020. The annualized rate of return was 6.01% for the last three years and 6.20% for the last five years. The annualized rate of return for the fiscal year ended June 30, 2020 for the Job Service Plan was 2.82%. The annualized rate of return was 4.26% for the last three years and 4.77% 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, 2020 is \$144.2 million, which is 7.4% higher than the previous year. The assets earned an annualized rate of return of 6.1% for the fiscal year ended June 30, 2020. The annualized rate of return was 6.21% for the last three years and 6.18% for the last five years. During the fiscal year ended June 30, 2020, 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 of investment options 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, 2020 is \$15.5 million, which is a 4.7% increase from the previous year.

More detailed information on investment policies, schedule of fees and commissions, performance results and asset allocation can be found in the Investment Section of this report.

Independent Audit

The financial statements contained in this report were audited by the accounting firm of CliftonLarsonAllen LLP, under the direction of the North Dakota State Auditor. The auditors' opinion was unmodified for the System for the year ended June 30, 2020.

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, 2019. 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-four consecutive years (fiscal years ended June 30, 1996 - 2019). We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to GFOA for their review.

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, Chief Operating/Financial Officer **Executive Director**

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 emlpoyees 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 RETIREMENT BOARD

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



Mona Rindy Chairperson Term Expires 4/1/2025



Dirk Wilke Health Department Designee



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



Casey Goodhouse Member Elected Term Expires 6/30/24



Yvonne Smith Retiree Elected Term Expires 6/30/24



Adam Miller Member Elected Term Expires 6/30/22



Kim Wassim Member Elected Term Expires 6/30/23



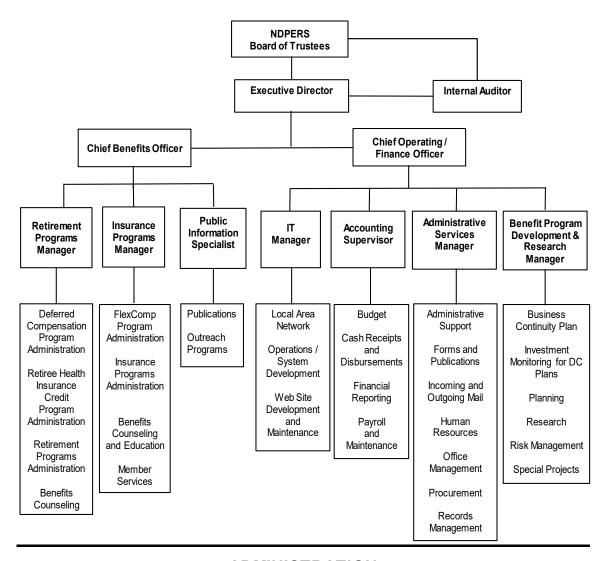
Senator John Grabinger
Appointed by
Legislative Management



Rep. Jason Dockter
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

Scott Miller, Executive Director

Derrick Hohbein, CPA, MBA Chief Operating / Finance Manager
Rebecca Fricke, Chief Benefits Officer
Shawna Piatz, CPA, CIA, Chief Audit Executive
MaryJo Anderson, Retirement Programs Manager
Lindsay Schaf, Insurance Programs Administrator
Aime Miller, Public Information Specialist
Mandy Nagel, IT Manager
Robin Mistelski, Accounting Supervisor
Janis Lund, Administrative Services Manager

Bryan Reinhardt, Benefit Program Development and Research Manager

See the following page for a listing of professionals who provide services to the North Dakota Public Employees Retirement System and page 100-101 in the Investment Section for a summary of fees paid to investment professionals.

Consulting & Professional Services

ACTUARY: AUDITOR:

Gabriel Roeder Smith & Company Clifton Larson Allen LLP

Chicago, IL Baltimore, MD

DENTAL INSURANCE CARRER: DISABILITY CONSULTANT:

Delta Dental of Minnesota Mid Dakota Clinic Minneapolis, MN Bismarck, ND

illieapolis, ivily

EMPLOYEE ASSISTANCE PROGRAM VENDORS:

eni NexGen EAP St. Alexius/Heartview

New York, NY Bismarck, ND

Live Well Solutions Village Family Services

Fargo, ND Fargo, ND

HEALTH INSURANCE CARRIER: INSURANCE CONSULTANT:

Sanford Health Plan Deloitte Consulting LLP

Sioux Falls, SD Minneapolis, MN

INVESTMENT SERVICES: LEGAL COUNSEL:

North Dakota Retirement & North Dakota Attorney General's

Investment Office Office

Bismarck, ND Bismarck, ND

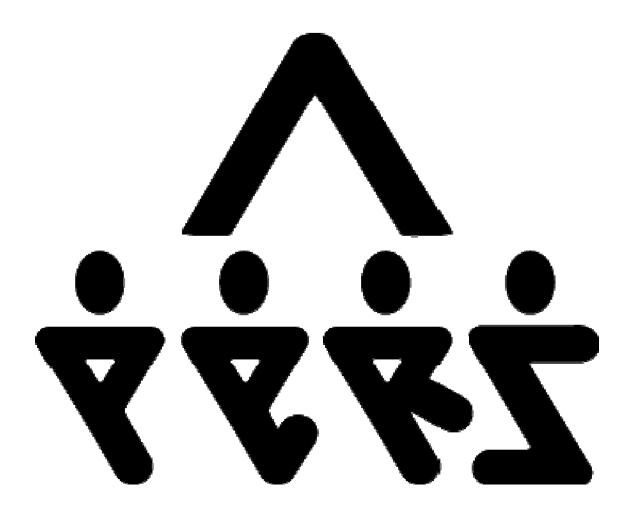
LIFE INSURANCE CARRIER: VISION INSURANCE CARRIER:

Voya Financial Superior Vision

New York, NY Rancho Cordova, CA

3rd PARTY PAYMENT PROCESSING:

ASI Flex (FlexComp & RHIC Reimbursements)
Columbia, MO



FINANCIAL SECTION



INDEPENDENT AUDITORS' REPORT

Governor Doug Burgum The Legislative Assembly

Scott Miller, 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, 2020 and 2019, 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.



Governor Doug Burgum
The Legislative Assembly
Scott Miller, Executive Director
North Dakota Public Employees' Retirement System

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 fiduciary net position of each of the individual fiduciary funds of the System as of June 30, 2020 and 2019, 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, the changes in financial position, and cash flows 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, changes in financial position, and, where applicable, the cash flows of the State of North Dakota as of June 30, 2020 and 2019, and for the years then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the schedules of changes to the net pension liability and related ratios, changes to the net other postemployment benefits liability and related ratios, employer contributions and investment returns, 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), and the introductory, investment, actuarial and statistical sections, 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.

Governor Doug Burgum
The Legislative Assembly
Scott Miller, Executive Director
North Dakota Public Employees' Retirement System

The introductory, investment, actuarial and statistical sections, 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 December 7, 2020, with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the System's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

Clifton Larson Allen LLP

Baltimore, Maryland December 7, 2020

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, 2020 and 2019. 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, 2020, and 2019, the Plan Fiduciary Net Position (FNP) as a percentage of the Total Pension Liability (TPL) and Total OPEB Liability (TOL) for each pension and OPEB fund is shown below:

	2020	2019
Public Employees Retirement System	49.4%	72.5%
Highway Patrolmen Retirement System	46.1%	76.6%
Retirement Plan for Employees of Job Service of ND	148.5%	146.8%
Retiree Health Insurance Credit Fund	63.4%	63.1%

The decreases in the FNP as a percentage of the TPL for the Public Employees Retirement System and the Highway Patrol System were mainly due to decreases in the discount rate from June 30, 2019 to June 30, 2020. The increase in the FNP as a percentage of the TPL for the Retiree Health Insurance Credit Fund and Job Service of ND was the result of positive investment earnings in the current year.

 The fiduciary net position for all trust funds administered by NDPERS increased \$77.9 million or 2.2% during the fiscal year ended June 30, 2020. This increase is primarily due to increased investment earnings as well as increased contributions from members and their employers.

	С	hange in
(in thousands)	Ne	t Position
Public Employees Retirement System	\$	57,620
Highway Patrolmen Retirement System		769
Retiree Health Insurance Credit Fund		8,109
Defined Contribution Retirement Fund		709
Pretax Benefits Fund		-
Deferred Compensation Plan		12,694
Retirement Plan for Employees of Job Service ND		(1,953)
Total Increase in Plan Fiduciary Net Position	\$	77,948

Financial Highlights - Uniform Group Insurance Program

 Net position increased by \$6.81 million or 23.5%. The increase is primarily a result of a moratorium on Patient Protection and Affordable Care Act (PPACA) fees that was accrued as of June 30, 2020 totaling \$6.99 million.

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 and notes to the financial statements.

Financial Statements

There are two financial statements presented for the fiduciary funds. The Statements of Fiduciary Net Position as of June 30, 2020 and 2019 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, 2020 and 2019 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, 2020 and 2019 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, 2020 and 2019, 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, 2020 and 2019 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 32-69 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 and a 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.

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 2020, 2019 and 2018 are summarized on page 20. The information in the tables on the following page are condensed from the Financial Statements.

Statement of Fiduciary Plan Net Position (condensed, in thousands)

	June 30, %			June 30, 2019		% Chango	June 30, 2018
		2020	Change		2019	Change	 2010
Assets							
Cash	\$	16,847	10.1%	\$	15,303	24.2%	\$ 12,325
Receivables		25,582	-0.4%		25,680	6.7%	24,063
Investments		3,596,248	2.2%		3,517,501	4.5%	3,366,923
Invested Securities Lending Collateral		9,189	-10.3%		10,242	15.1%	8,902
Software & Equipment, Net of							
Accumulated Depreciation		375	-61.6%		976	-42.8%	1,707
Total Assets		3,648,241	2.2%		3,569,702	4.6%	3,413,920
Liabilities							
Long-Term Liabilities		152	24.6%		122	-22.8%	158
Other Liabilities		13,452	4.4%		12,891	16.0%	 11,111
Total Liabilities		13,604	4.5%		13,013	15.5%	11,269
Fiduciary Net Position	\$	3,634,637	2.2%	\$	3,556,689	4.5%	\$ 3,402,651

The total assets for all fiduciary funds as of June 30, 2020 were \$3.65 billion and were comprised mostly of investments. For the fiscal year ended June 30, 2020 net position increased \$78 million. The increase was primarily due to financial market gains during the fiscal year. For the fiscal year ended June 30, 2019, net position increased by \$154 million. This increase was primarily due to contributions and financial market gains during the fiscal year.

Total liabilities as of June 30, 2020 increased \$0.6 million due to an increase in accounts payable. Total liabilities as of June 30, 2019 increased \$1.7 million over the prior year due to increases in securities lending collateral.

Statement of Changes in Fiduciary Plan Net Position (condensed, in thousands)

	June 30,		%	June 30,		%	Jı	une 30,	
		2020	Change		2019	Change		2018	
Additions									
Contributions	\$	203,276	4.7%	\$	194,086	0.5%	\$	193,038	
Transfers In		2,103	9.1%		1,927	-8.4%		2,103	
Net Investment Income		118,521	-36.1%		185,529	-33.1%		277,427	
Other		12,518	41.2%		8,865	-59.5%		21,895	
Total Additions		336,418	-13.8%		390,407	-21.0%		494,463	
Deductions									
Benefit Payments		238,909	8.8%		219,596	7.4%		204,373	
Transfers Out		644	58.6%		406	-43.3%		716	
Refunds		14,252	20.4%		11,840	5.2%		11,250	
Administrative Expenses		4,665	3.1%		4,524	-1.6%		4,598	
Total Deductions		258,470	9.4%		236,366	7.0%		220,937	
Change in Fiduciary Net Position	\$	77,948	-49.4%	\$	154,041	-43.7%	\$	273,526	

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, increased by \$9.4 million for the year ended June 30, 2020 and increased \$0.9 million for the year ended June 30, 2019. The increases reflect an increase in contributions as a result of membership and payroll growth. Investment earnings, while positive in 2020 and 2019, decreased by \$67.0 million and \$91.2 million from the prior years, respectively. The change in Other Additions for June 30, 2020 and June 30, 2019 is primarily due to fluctuations in service purchase payments received during the year.

<u>Deductions</u>. Total deductions increased by \$22.1 million or 9.4% for the fiscal year ended June 30, 2020. Total deductions increased by \$15.4 million or 7.0% for the fiscal year ended June 30, 2019. The increase each year 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.

Statement of Proprietary Fund Net Position (in thousands)

	June 30, % 2020 Change		June 30, 2019		% Change		une 30, 2018	
Assets								
Cash & Investments	\$	36,294	4.7%	\$	34,676	-0.3%	\$	34,767
Receivables		7,279	2835.1%		248	-95.8%		5,900
Software		151	-61.7%		394	-42.7%		688
Total Assets		43,724	23.8%		35,318	-14.6%		41,355
Liabilities								
Long-Term Liabilities		65	22.6%		53	-23.2%		69
Other Liabilities		7,834	25.2%		6,255	11.9%		5,588
Total Liabilities		7,899	25.2%		6,308	11.5%		5,657
Net Position	\$	35,825	23.5%	\$	29,010	-18.7%	\$	35,698

The net position for the proprietary fund increased by \$6.8 million during the fiscal year ended June 30, 2020. The increase is due to a refund of PPACA fees for the year as a result of a federal moratorium. The net position for the proprietary fund decreased by \$6.69 million during the fiscal year ended June 30, 2019. The decrease was primarily due to the buydown of insurance premiums for the year.

Total assets, as of June 30, 2020, were \$43.7 million and were comprised mainly of cash and investments. Total assets increased by \$8.4 million from the prior fiscal year primarily due to receivable related to the PPACA moratorium. Total assets, as of June 30, 2019, were \$35.3 million and were comprised mainly of cash and investments. Total assets decreased by \$6.0 million from the prior fiscal year primarily due to the buydown of insurance premiums.

Total liabilities, as of June 30, 2020, were \$7.9 million, \$6.3 million as of June 30, 2019 and \$5.7 million as of June 30, 2018, 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 investments and is to pay administrative expenses of the uniform group insurance program, reduce premium payments/increases, and increase insurance coverage.

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

	June 30, 2020		•		une 30, 2019	% Change	 June 30, 2018	
Operating Revenues								
Premium Revenues	\$	367,910	11.1%	\$	331,090	-4.8%	\$ 347,623	
Administrative Fee		1,001	-0.1%		1,002	-8.9%	1,100	
Miscellaneous		7,023	175475.0%		4_	-101.5%	 (273)	
Total Operating Revenues		375,934	13.2%		332,096	-4.7%	348,450	
Non-Operating Revenues								
Net Investment Income		717	-52.8%		1,519	337.8%	 347	
Total Revenues		376,651	12.9%		333,615	-4.4%	 348,797	
Operating Expenses								
Premium Expenses		367,954	8.8%		338,090	-4.8%	354,958	
Administrative Expenses		1,769	-6.3%		1,888	2.6%	1,841	
Total Operating Expenses		369,723	8.7%		339,978	-4.7%	356,799	
Non-Operating Expense								
Transfer Out		113	-65.2%		325	135.5%	 138	
Change in Net Position	\$	6,815	201.9%	\$	(6,688)	-17.8%	\$ (8,140)	
Total Net Position	\$	35,825	23.5%	\$	29,010	-18.7%	\$ 35,698	

The net position for the proprietary fund increased by \$6.8 million during the fiscal year ended June 30, 2020 primarily due to a refund of PPACA fees for the year as a result of a federal moratorium. The net position for the proprietary fund decreased by \$6.7 million during the fiscal year ended June 30, 2019 primarily due to the buydown of insurance premiums for the year. The net position for the proprietary fund decreased by \$8.1 million during the fiscal year ended June 30, 2018 primarily due to the buydown of insurance premiums for the year.

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 June 30, 2020 and 2019

	Uniform Group Insurance Program					
	2020	2019				
ASSETS						
CURRENT ASSETS						
Cash and Cash Equivalents	\$ 4,914,119	\$ 3,602,289				
Invested Cash	2,727,932	2,867,344				
Commingled Domestic Fixed Income Investments	28,651,685	28,207,330				
Due from Other State Agencies	52,724	-				
Accounts Receivable	7,226,484	248,238				
Total Current Assets	43,572,944	34,925,201				
NONCURRENT ASSETS						
Capital Assets (Net of Depreciation/Amortization)	151,212	393,539				
Total Assets	43,724,156	35,318,740				
LIABILITIES						
CURRENT LIABILITIES						
Salaries Payable	79,111	84,825				
Accounts Payable	157,551	102,427				
Due to Other State Agencies	8,920	9,779				
Unearned Premiums	7,582,398	6,052,981				
Accrued Compensated Absences	6,390	5,209				
Total Current Liabilities	7,834,370	6,255,221				
NONCURRENT LIABILITIES						
Accrued Compensated Absences	65,086	53,053				
Total Liabilities	7,899,456	6,308,274				
NET POSITION						
Net Investment in Capital Assets	151,212	393,539				
Unrestricted Net Position	35,673,488	28,616,927				
Total Net Position	\$ 35,824,700	\$ 29,010,466				

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, 2020 and 2019

	Uniform Group Insurance Program						
		2020		2019			
OPERATING REVENUES		_					
Premium Revenues	\$	367,910,354	\$	331,090,017			
Administrative Fee		1,001,017		1,001,677			
Underwriting Gain (Loss)		6,992,619		(2,163)			
Miscellaneous		30,000		6,094			
Total Operating Revenues		375,933,990		332,095,625			
OPERATING EXPENSES							
Premium Expenses		367,954,336		338,089,595			
Salaries and Wages		937,444		976,168			
Operating Expenses		330,960		346,463			
Professional Fees		117,316		179,353			
Data Processing		86,508		91,407			
Amortization		297,190		294,577			
Total Operating Expenses		369,723,754		339,977,563			
Operating Gain (Loss)		6,210,236		(7,881,938)			
NON-OPERATING REVENUES AND EXPENSES							
Investment Income		747,377		1,563,073			
Investment Expenses		(30,879)		(43,655)			
Total Non-Operating Revenues and Expenses		716,498		1,519,418			
INCOME (LOSS) BEFORE TRANSFERS		6,926,734		(6,362,520)			
TRANSFERS OUT		112,500		325,000			
Change in Net Position		6,814,234		(6,687,520)			
Total Net Position - Beginning of Year		29,010,466		35,697,986			
TOTAL NET POSITION - END OF YEAR	\$	35,824,700	\$	29,010,466			

North Dakota Public Employees Retirement System – Financial Section Statements of Cash Flows – Proprietary Fund For the Fiscal Year Ended June 30, 2020 and 2019

	Uniform Group Insurance Progr					
		2020		2019		
CASH FLOWS FROM OPERATING ACTIVITIES						
Premiums Collected	\$	367,910,354	\$	331,090,017		
Administrative Fees Collected		(4,500,535)		1,635,699		
Payments to Suppliers		(480,519)		(631,045)		
Premiums Paid		(367,954,336)		(338,089,595)		
Payments to Employees		(929,945)		(992,190)		
Underwriting Gain		6,992,619		5,696,837		
Miscellaneous Income		30,000		6,094		
Net Cash Provided (Used) by Operating Activities		1,067,638		(1,284,183)		
CASH FLOWS FROM INVESTING ACTIVITIES						
Net Purchase of Investments		(444,355)		1,676,588		
Investment Income		747,377		1,563,073		
Investment Expense		(30,879)		(43,655)		
Net Cash Provided by Investing Activities		272,143		3,196,006		
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES						
Purchase of Software		(54,863)		_		
Transfers Out		(112,500)		(325,000)		
Net Cash Used by Financing Activities		(167,363)		(325,000)		
That Guart Good by Timanoning Houvilloo		(101,000)	-	(020,000)		
NET CHANGE IN CASH AND CASH EQUIVALENTS		1,172,418		1,586,823		
Cash and Cash Equivalents - Beginning of Year		6,469,633		4,882,810		
CASH AND CASH EQUIVALENTS - END OF YEAR	\$	7,642,051	\$	6,469,633		
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES						
Operating Income (Loss)	\$	6,210,236	\$	(7,881,938)		
Adjustments to Reconcile Operating Income (Loss) to Net Cash						
Provided (Used) by Operating Activities:		00= 100				
Amortization		297,190		294,577		
Effect of Changes in Assets and Liabilities:		(0.070.040)		5.054.000		
Accounts Receivable		(6,978,246)		5,651,886		
Due from Other State Agencies		(52,724)		704		
Salaries Payable		(5,714)		784		
Accrued Compensated Absences		13,214		(16,807)		
Accounts Payable		55,124		3,769		
Due to Fiduciary Funds Due to Other State Agencies		(859)		(17,589)		
Amounts Held in Custody for Others		1,529,417		(2) 681,137		
Net Cash Provided (Used) by Operating Activities	\$	1,067,638	\$	(1,284,183)		
inet Cash Provided (Osed) by Operating Activities	Φ	1,007,038	Φ	(1,204,103)		

							Retirement	
	Public	Highway	Retiree	Defined	5 .	5.4	Plan for	
	Employees	Patrolmen's	Health	Contribution	Pretax	Deferred	Employees of	
	Retirement	Retirement	Insurance	Retirement	Benefits	Compensation	Job Services	T.4.1
ACCETO	System	System	Credit Fund	Fund	Program	Plan	North Dakota	Total
ASSETS	Φ 45 440 000	•	Φ 044.077	Φ 450.050	Φ 504.040	Φ 050.040	Φ 7.044	A. 10.047.040
Cash	\$ 15,113,663	\$ -	\$ 814,077	\$ 159,859	\$ 501,349	\$ 250,648	\$ 7,644	\$ 16,847,240
Receivables:								
Contribution Receivable	12,756,310	23,152	1,007,849	83,406	518,551	966,517	2,153	15,357,938
Interest Receivable	9,952,954	261,434	252	-	-	-	43	10,214,683
Due from Other Fiduciary Funds	9,250							9,250
Due from Other State Agencies			291					291
Total Receivables	22,718,514	284,586	1,008,392	83,406	518,551	966,517	2,196	25,582,162
Investments:								
External Investment Pool	3,120,007,872	81,897,326	-	-	-	-	-	3,201,905,198
Equities	-	-	88,768,471	-	-	-	18,153,248	106,921,719
Fixed Income	-	-	54,676,415	285,606	-	2,262,844	76,766,803	133,991,668
Mutual Funds	-	-	-	14,974,555	-	133,971,266	-	148,945,821
Invested Cash	-	-	792,184	224,680	-	3,048,553	418,439	4,483,856
Total Investments	3,120,007,872	81,897,326	144,237,070	15,484,841		139,282,663	95,338,490	3,596,248,262
Invested Securities Lending Collateral Capital Assets	8,953,451	235,324	-	-	-	-	-	9,188,775
(Net of Depreciation/Amortization)	200,849	2,551	17,873	1,034	50,404	100,808	991	374,510
Total Assets	3,166,994,349	82,419,787	146,077,412	15,729,140	1,070,304	140,600,636	95,349,321	3,648,240,949

						Retirement			
	Public	Highway	Retiree	Defined			Plan for	Total	
	Employees	Patrolmen's	Health	Contribution	Pretax	Deferred	Employees of		
	Retirement	Retirement	Insurance	Retirement	Benefits	Compensation	Job Services		
	System	System	Credit Fund	Fund	Program	Plan	North Dakota		
LIABILITIES									
Salaries Payable	\$ 118,234	\$ -	\$ -	\$ -	\$ 18,495	\$ 33,653	\$ -	170,382	
Accounts Payable	3,454,006	-	456,495	-	12,077	11,771	89,434	4,023,783	
Due to Other State Agencies	13,824	-	-	98	2,580	4,537	-	21,039	
Due to Other Fiduciary Funds	-	-	-	-	-	-	9,250	9,250	
Amounts Held in Custody for Others	-	-	-	-	-	38,644	-	38,644	
Securities Lending Collateral	8,953,451	235,324	-	-	-	-	-	9,188,775	
Accrued Compensated Absences	103,695				14,683	33,884		152,262	
Total Liabilities	12,643,210	235,324	456,495	98	47,835	122,489	98,684	13,604,135	
FIDUCIARY NET POSITION									
Restricted for Pensions	3,154,351,139	82,184,463	-	15,729,042	-	140,478,147	95,250,637	3,487,993,428	
Restricted for Postemployment									
Healthcare Benefits	-	-	145,620,917	-	-	-	-	145,620,917	
Restricted for Pretax Benefits					1,022,469			1,022,469	
Total Fiduciary Net Position									
Held in Trust	\$ 3,154,351,139	\$ 82,184,463	\$ 145,620,917	\$ 15,729,042	\$ 1,022,469	\$ 140,478,147	\$ 95,250,637	\$ 3,634,636,814	
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	Public	Highway	Retiree	Defined			Retirement Plan for	
		Patrolmen's	Health	Contribution	Pretax	Deferred	Employees of	
	Employees Retirement	Retirement	Insurance	Retirement	Benefits		Job Services	
						Compensation		Total
100570	System	System	Credit Fund	Fund	Program	Plan	North Dakota	Total
ASSETS								
Cash	\$ 13,612,534	<u> </u>	\$ 927,624	\$ 114,690	\$ 445,409	\$ 200,509	\$ 2,113	\$ 15,302,879
Receivables:								
Contribution Receivable	13,105,664	-	1,050,419	105,171	505,782	1,037,149	2,430	15,806,615
Interest Receivable	9,617,806	254,928	22	-	-	-	237	9,872,993
Due from Other State Agencies	<u> </u>	<u></u> _	294					294
Total Receivables	22,723,470	254,928	1,050,735	105,171	505,782	1,037,149	2,667	25,679,902
Investments:								
External Investment Pool	3,061,908,623	81,155,769	-	-	-	-	_	3,143,064,392
Equities	-	-	84,480,446	-	-	-	19,094,960	103,575,406
Fixed Income	-	_	51,472,649	234,950	-	2,066,180	77,780,193	131,553,972
Mutual Funds	-	-	-	14,368,134	-	121,999,475	_	136,367,609
Invested Cash	-	_	9,404	193,159	-	2,327,401	409,888	2,939,852
Total Investments	3,061,908,623	81,155,769	135,962,499	14,796,243		126,393,056	97,285,041	3,517,501,231
Invested Securities Lending Collateral	9,977,140	264,646	-	-	-	-	-	10,241,786
Capital Assets								
(Net of Depreciation/Amortization)	521,286	4,822	50,134	3,544	131,180	262,359	3,027	976,352
Total Assets	3,108,743,053	81,680,165	137,990,992	15,019,648	1,082,371	127,893,073	97,292,848	3,569,702,150

	Public Highway Employees Patrolmen's Retirement Retirement System System		atrolmen's Health		Pretax Benefits Program	Deferred Compensation Plan	Retirement Plan for Employees of Job Services North Dakota	Total
LIABILITIES	<u> </u>	<u> </u>	Credit i dila	Fund	1 Togram	I lall	NOITH DAROta	Total
Salaries Payable	\$ 99,247	\$ -	\$ -	\$ -	\$ 20,569	\$ 40,921	\$ -	160,737
Accounts Payable	1,844,752	-	478,706	8	24,592	16,071	89,602	2,453,731
Due to Other State Agencies	11,948	-	-	94	2,801	4,859	-	19,702
Amounts Held in Custody for Others	-	-	-	-	-	14,795	-	14,795
Securities Lending Collateral	9,977,140	264,646	-	-	-	-	-	10,241,786
Accrued Compensated Absences	78,885				11,532	31,811		122,228
Total Liabilities	12,011,972	264,646	478,706	102	59,494	108,457	89,602	13,012,979
FIDUCIARY NET POSITION								
Restricted for Pensions	3,096,731,081	81,415,519	-	15,019,546	-	127,784,616	97,203,246	3,418,154,008
Restricted for Postemployment								
Healthcare Benefits	-	-	137,512,286	-	-	-	-	137,512,286
Restricted for Pretax Benefits					1,022,877			1,022,877
Total Fiduciary Net Position								
Held in Trust	\$ 3,096,731,081	\$ 81,415,519	\$ 137,512,286	\$ 15,019,546	\$ 1,022,877	\$ 127,784,616	\$ 97,203,246	\$ 3,556,689,171

North Dakota Public Employees Retirement System – Financial Section Statement of Changes in Fiduciary Net Position – Fiduciary Funds For the Fiscal Year Ended June 30, 2020

	Public	Highway	Retiree	Defined			Retirement Plan for	
	Employees	Patrolmen's	Health	Contribution	Pretax	Deferred	Employees of	
	Retirement	Retirement	Insurance	Retirement	Benefits	Compensation	Job Services	
	System	System	Credit Fund	Fund	Program	Plan	North Dakota	Total
ADDITIONS								
Contributions:								
From Employer	\$ 85,504,033	\$ 2,176,902	\$ 13,392,266	\$ 479,861	\$ -	\$ -	\$ -	\$ 101,553,062
From Employee	81,477,666	1,469,682	16,319	482,365	5,534,001	12,716,174	27,047	101,723,254
Transfers from Other Plans	-	=	=	6,221	-	637,500	=	643,721
From External Plans	-	=	=	4,324	-	1,454,944	=	1,459,268
Total Contributions	166,981,699	3,646,584	13,408,585	972,771	5,534,001	14,808,618	27,047	205,379,305
Investment Income:								
Net Change in Fair Value of Investments	43,599,936	1,150,890	3,791,934	(132,456)	-	4,681,216	149,250	53,240,770
Interest and Dividends	65,795,981	1,736,006	3,530,531	677,312	1,747	931	2,792,754	74,535,262
Less Investment Expense	(8,419,181)	(222,946)	(417,596)	(8,520)	-	-	(320,937)	(9,389,180)
Net Investment Income	100,976,736	2,663,950	6,904,869	536,336	1,747	4,682,147	2,621,067	118,386,852
Securities Lending Income	129,262	3,421	_	_				132,683
Repurchase Service Credit	10,818,588	205,461	556,585	2,727	-	-	-	11,583,361
FICA Tax Savings	-	-	-	-	806,837	-	-	806,837
Transfer from Proprietary Fund	-	-	-	-	-	112,500	-	112,500
Miscellaneous Income (Expense)	(2,580)	(16)	9,580	8,870	-	100	-	15,954
Total Additions	278,903,705	6,519,400	20,879,619	1,520,704	6,342,585	19,603,365	2,648,114	336,417,492
DEDUCTIONS								
Benefits Paid to Participants	204,312,452	5,580,332	=	802,861	5,285,746	6,033,883	4,581,575	226,596,849
Refunds	14,122,715	124,254	4,614	-	-	-	-	14,251,583
Prefunded Credit Applied	-	-	12,312,461	-	-	-	-	12,312,461
Transfers to Other Plans	118,721	-	-	-	525,000	-	-	643,721
	218,553,888	5,704,586	12,317,075	802,861	5,810,746	6,033,883	4,581,575	253,804,614
Administrative Expenses	2,729,759	45,870	453,913	8,347	532,247	875,951	19,148	4,665,235
Total Deductions	221,283,647	5,750,456	12,770,988	811,208	6,342,993	6,909,834	4,600,723	258,469,849
CHANGE IN FIDUCIARY NET POSITION	57,620,058	768,944	8,108,631	709,496	(408)	12,693,531	(1,952,609)	77,947,643
Net Position - Beginning of Year	3,096,731,081	81,415,519	137,512,286	15,019,546	1,022,877	127,784,616	97,203,246	3,556,689,171
FIDUCIARY NET POSITION - END OF YEAR	\$ 3,154,351,139	\$ 82,184,463	\$ 145,620,917	\$ 15,729,042	\$ 1,022,469	\$ 140,478,147	\$ 95,250,637	\$ 3,634,636,814

North Dakota Public Employees Retirement System – Financial Section Statement of Changes in Fiduciary Net Position – Fiduciary Funds For the Fiscal Year Ended June 30, 2019

							Retirement	
	Public	Highway	Retiree	Defined			Plan for	
	Employees	Patrolmen's	Health	Contribution	Pretax	Deferred	Employees of	
	Retirement	Retirement	Insurance	Retirement	Benefits	Compensation	Job Services	
	System	System	Credit Fund	Fund	Program	Plan	North Dakota	Total
ADDITIONS								
Contributions:								
From Employer	\$ 81,588,318	\$ 2,090,886	\$ 12,977,460	\$ 504,381	\$ -	\$ -	\$ -	\$ 97,161,045
From Employee	78,213,580	1,411,619	15,859	495,881	5,550,283	11,208,573	29,159	96,924,954
Transfers from Other Plans	-	-	-	5,963	-	400,000	-	405,963
From External Plans	<u> </u>					1,521,518		1,521,518
Total Contributions	159,801,898	3,502,505	12,993,319	1,006,225	5,550,283	13,130,091	29,159	196,013,480
Investment Income:								
Net Change in Fair Value of Investments	100,603,577	2,678,760	5,197,140	4,619	-	6,252,160	3,497,989	118,234,245
Interest and Dividends	67,026,499	1,784,059	3,373,208	794,206	945	1,466	3,043,292	76,023,675
Less Investment Expense	(8,017,853)	(217,565)	(391,416)	(8,009)	-	-	(311,651)	(8,946,494)
Net Investment Income	159,612,223	4,245,254	8,178,932	790,816	945	6,253,626	6,229,630	185,311,426
Securities Lending Income	211,869	5,647					-	217,516
Repurchase Service Credit	7,219,697	167,824	377,329	-	=	-	-	7,764,850
FICA Tax Savings	-	-	-	-	772,629	-	-	772,629
Transfer from Proprietary Fund	-	-	-	-	=	325,000	-	325,000
Miscellaneous Income (Expense)	(5,641)	(41)	(857)	8,339	=	(216)	-	1,584
Total Additions	326,840,046	7,921,189	21,548,723	1,805,380	6,323,857	19,708,501	6,258,789	390,406,485
DEDUCTIONS								
Benefits Paid to Participants	185,644,486	5,341,256	-	1,049,355	5,460,799	5,975,993	4,626,846	208,098,735
Refunds	11,782,488	49,859	7,180	-	=	-	-	11,839,527
Prefunded Credit Applied	-	_	11,497,890	-	-	_	_	11,497,890
Transfers to Other Plans	330,963	_	-	-	75,000	_	_	405,963
	197,757,937	5,391,115	11,505,070	1,049,355	5,535,799	5,975,993	4,626,846	231,842,115
Administrative Expenses	2,531,304	43,555	437,349	8,535	570,248	916,616	16,808	4,524,415
Total Deductions	200,289,241	5,434,670	11,942,419	1,057,890	6,106,047	6,892,609	4,643,654	236,366,530
CHANGE IN FIDUCIARY NET POSITION	126,550,805	2,486,519	9,606,304	747,490	217,810	12,815,892	1,615,135	154,039,955
Net Position - Beginning of Year	2,970,180,276	78,929,000	127,905,982	14,272,056	805,067	114,968,724	95,588,111	3,402,649,216
FIDUCIARY NET POSITION - END OF YEAR	\$ 3,096,731,081	\$ 81,415,519	\$ 137,512,286	\$ 15,019,546	\$ 1,022,877	\$ 127,784,616	\$ 97,203,246	\$ 3,556,689,171

North Dakota Public Employees Retirement System – Financial Section Notes to the Financial Statements June 30, 2020 and 2019

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

The Public Employees Retirement System (the 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 and other employee benefit 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 as restricted for benefits which 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.

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

North Dakota Public Employees Retirement System – Financial Section Notes to the Financial Statements June 30, 2020 and 2019

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 funds consist 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 – a cost-sharing multiple employer other post-employment benefit (OPEB) plan that offsets 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 and 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 Schedule 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, 2020 and 2019. 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 investments is discussed in further detail in Note 2 to the financial statements.

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) greater than \$5,000, are presented in the accompanying financial statements at cost or estimated historical cost. Donated capital assets are stated at acquisition 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, 2020 and 2019, 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 2020 and 2019, 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.

Restricted Net Position

Net position restricted for benefits consists of funds on deposit with Sanford Health Plan to pay health care benefits in the event total claims incurred during the biennium exceed total premiums. This amount was \$0 as of June 30, 2020 and June 30, 2019. See Note 14 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.

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.

NOTE 2 DEPOSITS AND INVESTMENTS

Defined Contribution Retirement Fund

		June 30		
			Significant Other Observable	Significant Unobservable
		Identical Assets	Inputs	Inputs
	June 30, 2020	(Level 1)	(Level 2)	(Level 3)
Investments at Fair Value				
Mutual Funds	\$ 14,974,555	\$ 14,974,555	\$ -	\$ -
Investments at Contract Value				
Fixed Income	285,606			
Investments at Amortized Cost				
Invested Cash	224,680			
Total Investments	\$ 15,484,841			
		June 30	0, 2019	
		Quoted Prices	Significant	,
		in Active	Other	Significant
		Markets for Identical Assets	Observable Inputs	Unobservable Inputs
	l 20 2040		-	_
Investments at Fair Value	June 30, 2019	(Level 1)	(Level 2)	(Level 3)
	* ***********************************	* 44.000.404	•	•
Mutual Funds	\$ 14,368,134	\$ 14,368,134	\$ -	\$ -
Investments at Contract Value				
Fixed Income	234,950			
Investments at Amortized Cost				
Invested Cash	193,159			
Total Investments	\$ 14,796,243			

NOTE 2 DEPOSITS AND INVESTMENTS (CONTINUED)

Deferred Compensation Plan

		June 3		
		Quoted Prices in Active	Significant Other	Significant
		Markets for Identical Assets	Observable Inputs	Unobservable Inputs
	June 30, 2020	(Level 1)	(Level 2)	(Level 3)
Investments at Fair Value				
Mutual Funds	\$ 133,971,266	\$ 133,971,266	\$ -	\$ -
Investments at Contract Value				
Fixed Income	2,262,844			
Investments at Amortized Cost				
Invested Cash	3,048,553			
Total Investments	\$ 139,282,663			
		June 3	0, 2019	
		Quoted Prices	Significant	Significant
		Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs
	June 30, 2019	in Active Markets for	Other Observable	Unobservable
Investments at Fair Value	June 30, 2019	in Active Markets for Identical Assets	Other Observable Inputs	Unobservable Inputs
Investments at Fair Value Mutual Funds	June 30, 2019 \$ 121,999,475	in Active Markets for Identical Assets	Other Observable Inputs	Unobservable Inputs
		in Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Mutual Funds		in Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Mutual Funds Investments at Contract Value	\$ 121,999,475	in Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Mutual Funds Investments at Contract Value Fixed Income	\$ 121,999,475	in Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)

Investments Measured at the Net Asset Value - Proprietary Fund

	June 30, 2020
Commingled Domestic Fixed Income	\$ 28,651,685
	June 30, 2019
Commingled Domestic Fixed Income	\$ 28.207.330

NOTE 2 DEPOSITS AND INVESTMENTS (CONTINUED)

<u>Investments Measured at the Net Asset Value – Fiduciary Funds</u>

			2020						
					F	Retirement			
	Public			Highway		Retiree		Plan for	
		Employees	F	Patrolmen's	Health			mployees of	
		Retirement		Retirement		Insurance	J	ob Services	
		System		System		Credit Fund	N	orth Dakota	
Commingled External Investment Pools	\$	3,120,007,872	\$	81,897,326	\$	-	\$	-	
Commingled Equities		-		-		88,768,471		18,153,248	
Commingled Fixed Income		-		-	54,676,415			76,766,803	
Total Investments Measured at the									
Net Asset Value	\$	3,120,007,872	\$	81,897,326	\$	143,444,886	\$	94,920,051	
			June 30, 2019						
								Retirement	
		Public		Highway		Retiree	Plan for Employees of		
		Employees	F	Patrolmen's		Health			
		Retirement		Retirement		Insurance	J	ob Services	
		System		System	Credit Fund		N	orth Dakota	
Commingled External Investment Pools	\$	3,061,908,623	\$	81,155,769	\$	-	\$	-	
Commingled Equities		-		-		84,480,446		19,094,960	
Commingled Fixed Income		-		-		51,472,649		77,780,193	
Total Investments Measured at the									
rotal invocation wedgered at the				81,155,769					

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, 2020 and 2019. There are no unfunded commitments and the plan may redeem investments daily with a one day redemption notice period. For the years ended June 30, 2020 and 2019, the Retirement Plan for Employees of Job Service of North Dakota's investments were held in an individual investment pool with the North Dakota Retirement and Investment Office and were 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.

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 at the time of acquisition.

	2020	2019
Cash Deposits at the Bank of North Dakota Recorded as Cash and Cash Equivalents	\$ 19,444,296	\$ 16,697,023
Cash Deposits at State Treasury Recorded as Cash and Cash Equivalents	2,250,071	2,044,097
Cash Held by the North Dakota Retirement and Investment Office Recorded as Cash and Cash Equivalents	2,727,932	2,867,344
Guaranteed Investment Contract with Health Plan Provider Recorded as Cash and Cash Equivalents	66,993	164,048
Total Cash and Cash Equivalents	\$ 24,489,292	\$ 21,772,512

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, 2020 and 2019, the carrying amount of the System's cash deposits were \$53,140,977 and \$49,979,842, and the bank balances were \$55,005,793 and \$49,473,133. All of the System's deposits are uncollateralized and uninsured at June 30, 2020 and 2019.

Investments

Total investments of the fiduciary funds of the System as of June 30, 2020 and 2019, consisted of the following:

	2020	 2019
Equity Securities	\$ 1,952,520,744	\$ 1,936,989,935
Fixed Income Securities	869,135,872	840,744,060
Real Assets	602,436,549	581,869,362
Mutual Funds	148,945,821	136,367,608
Invested Cash	23,209,276	21,530,266
Securities Lending Collateral	9,188,775	 10,241,786
	\$ 3,605,437,037	\$ 3,527,743,017

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 were the System's asset allocation policies 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, 2020 and 2019:

Asset Class	Т		
	PERS & HPRS	JSND	RHIC
Domestic Equities	30.00%	6.00%	39.00%
International Equities	21.00%	14.00%	21.00%
Private Equity	7.00%	6.00%	0.00%
Domestic Fixed Income	23.00%	74.00%	40.00%
International Fixed Income	0.00%	0.00%	0.00%
Global Real Assets	19.00%	0.00%	0.00%
Cash and Equivalents	0.00%	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 and OPEB plan investments, net of pension and OPEB plan investment expense for the years ended June 30, 2020 and 2019 are:

_	2020	2019		
Public Employees Retirement System	3.57%	5.69%		
Highway Patrolman's Retirement System	3.28%	5.39%		
Job Service Plan	3.09%	7.00%		
Retiree Health Insurance Credit Fund	5.37%	6.75%		

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.

NOTE 2 DEPOSITS AND INVESTMENTS (CONTINUED)

For the years ended June 30, 2020 and 2019, the following are the net realized gains (losses):

	2020	2019
Public Employees Retirement System	\$ 59,815,789	\$ 78,102,906
Highway Patrolmen's Retirement System	1,578,933	2,079,637
Retiree Health Insurance Credit Plan	9,822,393	7,871,283
Defined Contribution Plan	(5,049)	230,794
Deferred Compensation Plan	5,491,243	6,454,352
Job Service Plan	1,125,627	2,901,971

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.

The System does not have a formal investment interest rate risk policy for the investments in the Defined Contribution Retirement Plan or the Deferred Compensation Plan as the investments are directed by each individual participant.

NOTE 2 DEPOSITS AND INVESTMENTS (CONTINUED)

PERS and HPRS Plan

			(Over 10						
Type (in thousands)	Fair Value		Year		1-6 Years		6-10 Years			Years
Domestic Fixed Income Pool	\$	486,185	\$	23,329	\$	129,948	\$	64,822	\$	268,086
Below Investment Grade FI Pool		78,309		99		31,774		33,821		12,615
Large Cap Domestic Equity Pool		98,564		569		48,562		4,373		45,060
Small Cap Domestic Equity Pool		68,182				32,217		1,923		34,042
Total Debt Securities	\$	731,240	\$	23,997	\$	242,501	\$	104,939	\$	359,803

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

			(Over 10						
Type (in thousands)	Fair Value		e Year		1-6 Years		6-10 Years			Years
Domestic Fixed Income Pool	\$	482,379	\$	17,789	\$	87,971	\$	129,571	\$	247,048
Below Investment Grade FI Pool		95,303		2,030		49,205		34,479		9,589
Large Cap Domestic Equity Pool		73,284		620		35,658		2,648		34,358
Small Cap Domestic Equity Pool		54,600		4		26,541		2,354		25,701
Total Debt Securities	\$	705,566	\$	20,443	\$	199,375	\$	169,052	\$	316,696

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

Job Service Retirement Plan

		2020									
			Over 10								
Type (in thousands)	Fair	Fair Value		air Value Year 1-6 `		1-6 Years 6-10 Years			Years		
Pooled Investments	<u> </u>	76,767	\$	-	\$	48,531	\$	25,394	\$	2,842	

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

			2019		
		Less Than 1			Over 10
Type (in thousands)	Fair Value	Year	1-6 Years	6-10 Years	Years
Pooled Investments	77,780	-	48,659	29,121	-

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

NOTE 2 DEPOSITS AND INVESTMENTS (CONTINUED)

Retiree Health Insurance Credit Fund

						2020				
		Less Than 1 Over 10						ver 10		
Type (in thousands)	Fa	ir Value		Year	1-6	S Years	6-1	0 Years		Years
Pooled Investments	\$	54,676	\$	-	\$	5,617	\$	43,307	\$	5,752

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

			2019			
		Less Than 1				
Type (in thousands)	Fair Value	Year	1-6 Years	6-10 Years	Years	
Pooled Investments	51,473	-	5,469	46,004		

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

Securities Lending

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 North Dakota State Investment Board loans was approximately 232 days as of June 30, 2020.

Cash open collateral is invested in a short term investment pool, the NDSIB USD Cash fund, which had an interest sensitivity of 1 days as of this statement date.

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 fifteenth day of the following month.

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

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

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

The June 30, 2020 due from/to fiduciary and proprietary funds are summarized as follows:

Fund	Fiduciary and Fiduc Proprietary Prop		Oue to ciary and oprietary Funds	
Fiduciary		uius		unus
Public Employees Retirement System	\$	9,250	\$	-
Highway Patrolmen's Retirement System		-		_
Retiree Health Insurance Credit Fund		-		_
Retirement Plan for Employees of Job Service North Dakota		-		9,250
Pretax Benefits Program		-		_
Deferred Compensation Plan		-		_
Defined Contribution Plan		-		_
Proprietary				
Uniform Group Insurance Program		-		_
·	\$	9,250	\$	9,250

As of June 30, 2019 there were no due from/to balances on the fiduciary or proprietary funds as the Plan liquidated all account balances as of June 30, 2019.

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

June 30, 2020 due from/to state agencies are summarized as follows:

Fund	Due From State Agencies		Due to State Agencies	
Fiduciary	<u> Ctato 7</u>	tgeriolee_	<u> Ctate</u>	7 tgorioloo
Public Employees Retirement System				
Information Technology Department	\$	-	\$	12,832
Attorney General		-		783
Central Duplicating		-		17
Office of Administrative Hearings				192
Total	\$		\$	13,824
Retiree Health Insurance Credit Fund				
Job Service	\$	291	\$	-
Total	\$	291	\$	-
Defined Contribution Plan				
Information Technology Department	\$	_	\$	98
Total	\$	_	\$	98
Pretax Benefits Program	•		•	2 121
Information Technology Department	\$	-	\$	2,424
Attorney General Total	\$		\$	156
Total	<u> </u>		<u> </u>	2,580
Deferred Compensation Plan				
Information Technology Department	\$	-	\$	4,198
Attorney General				339
Total	\$		\$	4,537
Proprietary				
Uniform Group Insurance Program				
Information Technology Department	\$	_	\$	8,383
Central Duplicating	•	-	·	17
Attorney General		_		520
Total	\$	_	\$	8,920

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.

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

The June 30, 2019 due from/to state agencies are summarized as follows:

	Due From		Due to		
Fund	State A	Agencies	State	State Agencies	
Fiduciary					
Public Employees Retirement System					
Information Technology Department	\$	-	\$	11,047	
Attorney General		-		648	
Central Duplicating		-		42	
Department of Transportation		-		171	
Central Supply		-		40	
Total	\$		\$	11,948	
Retiree Health Insurance Credit Fund					
Job Service	\$	294	\$	_	
Total	\$	294	\$	_	
			<u> </u>		
Defined Contribution Plan	_				
Information Technology Department	\$		\$	94	
Total	\$		\$	94	
Pretax Benefits Program					
Information Technology Department	\$	-	\$	2,148	
Attorney General	•	_	·	607	
ND State Board of Accountancy				8	
Central Duplicating		-		5	
Central Supply		-		33	
Total	\$		\$	2,801	
Deferred Companyation Plan					
Deferred Compensation Plan Information Technology Department	\$		\$	4,082	
Attorney General	Ψ	_	Ψ	157	
Department of Human Services		_		600	
Central Supply		_		20	
Total	\$	_	\$	4,859	
			<u></u>	,	
Proprietary					
Uniform Group Insurance Program	Φ.		Φ.	0.400	
Information Technology Department	\$	-	\$	8,168	
Central Supply		-		30 4 504	
Attorney General Total	\$		\$	1,581	
IUlai	Φ		_Φ	9,779	

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

The June 30, 2020 operating transfers in/out are summarized as follows:

Fund Type/Fund	Tra	Transfers In		nsfers Out
Fiduciary Funds				
Defined Contribution Plan	\$	6,221	\$	-
Deferred Compensation Plan		750,000		-
Pretax Benefit Program		-		525,000
Public Employee Retirement System		-		118,721
Proprietary Funds				
Uniform Group Insurance Program		-		112,500

The June 30, 2019 operating transfers in/out are summarized as follows:

Fund Type/Fund	Tra	Transfers In		nsfers Out
Fiduciary Funds				
Defined Contribution Plan	\$	5,963	\$	-
Deferred Compensation Plan		725,000		-
Pretax Benefit Program		-		75,000
Public Employee Retirement System		-		330,963
Proprietary Funds				
Uniform Group Insurance Program		-		325,000

The transfer to the Defined Contribution Retirement Fund is for those employees electing to transfer from the PERS plan. The transfers to the Deferred Compensation Plan are to cover administrative expenses pursuant to NDCC 54-52-04 subsection 11.

NOTE 4 CAPITAL ASSETS

A statement of changes in equipment and accumulated depreciation for the System for the year ended June 30, 2020 and 2019 is as follows:

	Balance 7/1/2019	Additions	Deletions	Balance 6/30/2020
Proprietary Funds:				
Capital Assets Being Depreciated:				
Software	\$ 2,921,416	\$ 54,863	\$ -	\$ 2,976,279
Less Accumulated Amortization for:	(0.505.055)	(00= 100)		(0.00=.00=)
Software	(2,527,877)	(297,190)		(2,825,067)
Total Capital Assets Being Depreciated, Net	393,539	(242,327)		151,212
Proprietary Funds Capital Assets, Net	\$ 393,539	\$ (242,327)	\$ -	\$ 151,212
Fiduciary Funds:				
Capital Assets Being Depreciated:				
Software	\$ 7,244,785	\$ 135,136	\$ -	\$ 7,379,921
Total Capital Assets Being Depreciated Less Accumulated Depreciation for:	7,244,785	135,136	-	7,379,921
Software	(6,268,433)	(736,978)		(7,005,411)
Total Capital Assets Being Depreciated, Net	976,352	(601,842)		374,510
Fiduciary Funds Capital Assets, Net	\$ 976,352	\$ (601,842)	\$ -	\$ 374,510
	Balance			Balance
	7/1/2018	Additions	Deletions	6/30/2019
Proprietary Funds:				
Capital Assets Being Depreciated:				
Software	\$ 2,921,416	\$ -	\$ -	\$ 2,921,416
Less Accumulated Amortization for:	(0.000.000)	(004 577)		(0.507.077)
Software Total Capital Assets Being Depreciated, Net	(2,233,300) 688,116	(294,577)		<u>(2,527,877)</u> 393,539
Total Capital Assets being Depreciated, Net	000,110	(294,577)		
Proprietary Funds Capital Assets, Net	\$ 688,116	\$ (294,577)	\$ -	\$ 393,539
Fiduciary Funds:				
Capital Assets Being Depreciated:				
Software	\$ 7,244,785	_\$	\$ -	\$ 7,244,785
Total Capital Assets Being Depreciated Less Accumulated Depreciation for:	7,244,785	-	-	7,244,785
Software	(5,537,890)	(730,543)		(6,268,433)
Total Capital Assets Being Depreciated, Net	1,706,895	(730,543)		976,352
Fiduciary Funds Capital Assets, Net	\$ 1,706,895	\$ (730,543)	\$ -	\$ 976,352

NOTE 5 LEASE OBLIGATIONS

Operating Lease

The system entered into an operating lease for office space until June 30, 2021. Expenditures for this lease were \$171,308 for the year ended June 30, 2020 and \$176,202 for the year ended June 30, 2019, respectively. The future minimum lease payment for the fiscal year ending June 30, 2021 is \$171,308.

The system has also entered into an operating lease for office equipment, with expenditures totaling \$10,553 for the year ended June 30, 2020 and \$9,354 for the year ended June 30, 2019.

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

	Propr	ietary Fund	Fidu	uciary Fund
	Accrued	Compensated	Accrue	d Compensated
	Al	osences		bsences
Balance - June 30, 2018		75,069		158,261
Increases		51,349		107,725
Decreases		(68, 156)		(143,758)
Balance - June 30, 2019		58,262		122,228
Increases		46,117		98,241
Decreases		(32,903)		(68,207)
Balance - June 30, 2020	\$	71,476	\$	152,262
Balance - Due Within One Year	\$	6,390	\$	13,612

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, 2020 and 2019, were \$201,316 and \$204,340 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, 2020 and 2019, were \$16,682 and \$13,965.

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 employer 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.

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:

	2020	2019
Cities	98	94
Counties	51	50
School Districts	129	125
Other	86	85
Total Participating Political Subdivisions	364	354

Employee membership data is as follows:

_	PERS		HPF	RS	Job Service	
	2020	2019	2020	2019	2020	2019
Retirees, Beneficiaries, and Disability	_			_		_
Currently Receiving Benefits	12,945	12,300	133	136	181	185
Special Prior Service Retirees	-	-	-	-	-	-
Terminated Vested Participants	7,135	6,755	26	31	1	1
Inactive Participants	6,708	6,512	17	11	-	-
Active Plan Participants						
Vested	17,174	17,119	74	71	5	7
Nonvested	7,315	6,635	80	73		
Total Plan Membership	51,277	49,321	330	322	187	193

The defined contribution plan had 93 and 99 active participants as of June 30, 2020 and June 30, 2019, 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. For members hired on or after January 1, 2020 the annual pension benefit is equal to 1.75% of their average monthly salary, using the three highest periods of twelve consecutive months employed during the last one hundred eighty months of employment. 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 Public Safety, 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 Public Safety, 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.

NOTE 8 DESCRIPTION OF PLANS (CONTINUED)

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. The 2019 Legislative Assembly passed legislation that ended the RHIC plan for new hires after January 1, 2020 and redirected the 1.14% RHIC employer contribution to the retirement account for both the PERS plan as well as the defined contribution plan.

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 by statute as a percent of covered compensation as follows:

	Member	Employer
	Contributions	Contributions
Public Employees Retirement System		
Members first enrolled prior to January 1, 2020	7.00%	7.12%
Members first enrolled after January 1, 2020	7.00%	8.26%
Members returning to the Defined Benefit Plan		
as a result of Senate Bill 2015	9.00%	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%

The member's account balance includes employee contributions, interest, and the vested employer contributions equal to the member's contributions to an eligible deferred compensation plan. Members of the Supreme and District Court Judges are not eligible to vest in the employer contributions if contributing to the deferred compensation plan.

NOTE 8 DESCRIPTION OF PLANS (CONTINUED)

The minimum monthly member contribution to the deferred compensation plan is \$25 and the maximum vesting in the employer contributions 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

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%.

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% for members first enrolled prior to January 1, 2020. For members first enrolled after January 1, 2020 the member contribution rate is 7.00% and the employer rate is 8.26%.

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. For the fiscal years ended June 30, 2020 and June 30, 2019 there were no employer contributions necessary into the plan.

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.

NOTE 9 NET PENSION LIABILITY OF THE PLANS

The components of the net pension liability (asset) of the Plans at June 30, 2020 and 2019, are as follows:

2020	PERS	HPRS	JSND
Total Pension Liability	\$ 6,379,800,316	\$ 178,229,354	\$ 64,128,637
Plan Fiduciary Net Position	3,154,351,139	82,184,463	95,250,637
Net Pension Liability (Asset)	\$ 3,225,449,177	\$ 96,044,891	\$ (31,122,000)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability (Asset)	49.44%	46.11%	148.53%
2019	PERS	HPRS	JSND
			00110
Total Pension Liability	\$ 4,269,339,965	\$ 106,315,030	\$ 66,196,940
Total Pension Liability Plan Fiduciary Net Position	\$ 4,269,339,965 3,096,731,081	\$ 106,315,030 81,415,519	
·	. , , ,	, ,	\$ 66,196,940

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, 2020 and 2019.

Actuarial Assumptions

The actuarial assumptions used in the June 30, 2020 valuations were based on the results of an actuarial experience study for the period July 1, 2014 – June 30, 2019 as adopted by the Board. The actuarial assumptions used in the June 30, 2019 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:

The total pension liability as of June 30, 2020 and 2019, was determined by actuarial valuations as of July 1, 2020 and 2019, respectively, using the following actuarial assumptions, applied to all periods included in the measurement (unless noted otherwise):

Actuarial C	ost
-------------	-----

Method Entry Age Normal

Inflation As of June 30, 2020, 2.25%. As of June 30, 2019, 2.5%

Salary Increases For June 30, 2020, 3.50% to 17.75% including inflation. For June 30, 2019, 4.00% to 20.00%

including inflation

Retirement Age Age-based table of rates that are specific to the type of eligibility condition

NOTE 9 NET PENSION LIABILITY OF THE PLANS (CONTINUED)

Mortality Rates

For June 30, 2020 Sex-distinct Pub-2010 tables for General Employees, with scaling based on actual experience. Respective corresponding tables were used for healthy retirees, disabled retirees, and active members.

For June 30, 2019 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

The interest rate on member contributions will decrease from 7.00% to 6.50% effective January 1, 2021.

The benefit accrual rate for members first enrolled on or after January 1, 2020 in the Main and Public Safety Systems is 1.75% (compared to 2.00% for members enrolled before January 1, 2020.

The investment return assumption was updated from 7.50% to 7.00% beginning with the actuarial valuation as of July 1, 2020. Other updates to actuarial assumptions since the July 1, 2019 valuation include changes to mortality tables used for the valuation as well as changes to rates of annual salary increases, separation for active membership, disability, and retirement. The actuarial assumptions were based on an experience review for the period from July 1, 2014 to July 1, 2019

The employer rates to the System are the statutory/Board approved contribution rates of 7.12% of payroll for the Main System (8.26% for members enrolled on or after January 1, 2020), 17.52% for the Judges System, 9.81% for the Public Safety with prior Main System, and 7.93% for the Public Safety without prior Main System service System.

Highway Patrol

The total pension liability as of June 30, 2020 and 2019, was determined by actuarial valuations as of July 1, 2020 and 2019, using the following actuarial assumptions, applied to all periods included in the measurement (unless noted otherwise):

Actuarial Cost

Method Entry Age Normal

Asset Valuation

Method Plan Fiduciary Net Position (Market value of assets, no assets smoothing)

Inflation For June 30, 2020, 2.25%. For June 30, 2019, 2.5%.

Salary Increases Service-based table for members with less than five years of service and age-based table for

members with more than five years of service

Retirement Age Age-based table of rates that are specific to the type of eligibility condition

Mortality Rates For June 30, 2020 Pub 2010 Healthy Retiree Mortality table (for General Employees), sex-

distinct, with rates multiplied by 103% for males and 101% for females. Pub-2010 Disabled Retiree Mortality table (for General Employees), sex-distinct, with rates multiplied by 117% for males and 112% for females. Pub-2010 Employee Mortality table (for General Employees), sex-distinct, with rates multiplied by 92% for both males and females. Mortality rates are projected

from 2010 using MP-2019 scale.

NOTE 9 NET PENSION LIABILITY OF THE PLANS (CONTINUED)

For June 30, 2019, 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

The assumptions were updated beginning with the actuarial valuation as of July 1, 2020 based on an experience study covering the period of July 1, 2014 through July 1, 2019.

The employer rate to the System is the statutory ccontribution rate of 19.70% of payroll

JSND

The total pension liability as of June 30 2020 and 2019, was determined by actuarial valuations as of July 1, 2020 and 2019, using the following actuarial assumptions, applied to all periods included in the measurement (unless noted otherwise):

Actuarial Cost

Method Entry Age Normal

Asset Valuation

Method Plan Fiduciary Net Position (Market value of assets, no assets smoothing)

COLA As of June 30, 2020, 2.25%. As of June 30, 2019, 2.5%. **Inflation** As of June 30, 2020, 2.25%. As of June 30, 2019, 2.5%.

Salary Increases 3.50%

Investment Rate

of Return As of June 30, 2020, 4.25%. As of June 30, 2019, 4.75%.

Retirement Age Age-based table of rates that are specific to the type of eligibility condition

Mortality Rates For June 30, 2020, Pub-2010 Healthy Retiree Mortality table (for General Employees), sex-

distinct, with rates multiplied by 103% for males and 101% for females. Pub-2010 Disabled Retiree Mortality table (for General Employees), sex-distinct, with rates multiplied by 117% for males and 112% for females. Pub-2010 Employee Mortality table (for General Employees), sex-distinct, with rates multiplied by 92% for both males and females. Mortality rates are projected

from 2010 using the MP-2019 scale.

For June 30, 2019, 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

The assumptions were updated beginning with the actuarial valuation as of July 1, 2020 based on an experience study covering the period July 1, 2014 through July 1, 2019.

The System has assets in excess of the present value of future benefits. Therefore, no employer contributions are being made.

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, 2020 are summarized in the following tables:

PERS and HPRS

	Long-Term
	Expected Real
Asset Class	Rate of Return
Domestic Equity	6.30%
International Equity	6.85%
Private Equity	9.75%
Domestic Fixed Income	1.25%
Global Real Assets	5.01%
Cash Equivalents	0.00%

JSND

	_09 . 0
	Expected Real
Asset Class	Rate of Return
Domestic Equity	5.50%
Core Fixed Income	0.07%
Limited Duration Fixed Income	-0.34%
Global Equity	5.24%
Diversified Short-Term Fixed Income	-0.21%
Short-Term Corporate Fixed Income	-0.89%
US High Yield	3.11%
Emerging Market Debt	5.26%

Long-Term

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 the use of a municipal bond rate is required.

NOTE 9 NET PENSION LIABILITY OF THE PLANS (CONTINUED)

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

For the purpose of the June 30, 2020 valuation, the expected rate of return on pension plan investments is 7.00%; the municipal bond rate is 2.45%; and the resulting Single Discount Rate is 4.64%. For the June 30, 2019 valuation, the expected rate of return on pension plan investments was 7.50%, the municipal bond rate was 3.13%, and the resulting Single Discount Rate was 7.50%

For HPRS, the expected rate of return on pension plan investments is 7.00%, the municipal bond rate is 2.45% and the resulting Single Discount Rate is 4.09%. The discount rate used to measure the total pension liability was 7.50% as of June 30, 2019.

For JSND, the discount rate was 4.25% as of June 30, 2020 and 4.75% as of June 30, 2019. 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, 2020 and July 1, 2019 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, 2020. 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, 2020 and 2019.

Sensitivity of Net Pension Liability (Asset)

The following presents the net pension liability (asset) of the Plans as of June 30, 2020, calculated using the discount rate of 4.64% for PERS (7.50% as of June 30, 2019), 4.09% for HPRS (7.50% as of June 30, 2019) and 4.25% for JSND (4.75% as of June 30, 2019), 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:

NOTE 9 NET PENSION LIABILITY OF THE PLANS (CONTINUED)

as of June 30, 2020	(3.64%)	(4.64%)	(5.64%)
PERS	\$ 4,199,073,080	\$ 3,225,449,177	\$ 2,429,510,424
	1% Decrease (3.09%)	Current Discount (4.09%)	1% Increase (5.09%)
HPRS	127,280,387	96,044,891	71,396,917
	1% Decrease (3.25%)	Current Discount (4.25%)	1% Increase (5.25%)
JSND	\$ (24,661,696)	\$ (31,122,000)	\$ (36,644,730)
Net Pension Liability (Asset) as of June 30, 2019	1% Decrease (6.50%)	Current Discount (7.50%)	1% Increase (8.50%)
as of June 30, 2019	(6.50%) \$ 1,697,748,658 1% Decrease	(7.50%) \$ 1,172,608,884 Current Discount	(8.50%) \$ 731,651,266 1% Increase
as of June 30, 2019	(6.50%) \$ 1,697,748,658	(7.50%) \$ 1,172,608,884	(8. 50%) \$ 731,651,266
as of June 30, 2019 PERS	(6.50%) \$ 1,697,748,658 1% Decrease (6.5%)	(7.50%) \$ 1,172,608,884 Current Discount (7.5%)	(8.50%) \$ 731,651,266 1% Increase (8.5%)

NOTE 10 RETIREE HEALTH INSURANCE CREDIT (RHIC) FUND

The Retiree Health Insurance Credit Fund, a cost-sharing multiple-employer other post-employment benefit (OPEB) plan, is administered by the System to provide members that were first enrolled in the plan prior to January 1, 2020 and are 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. Effective August 1, 2019 the credit is expanded to also include any dental, vision, and long term care plan. The Retiree Health Insurance Credit Fund is advance-funded on an actuarially determined basis.

Employee membership data is as follows:

	2020	2019
Retired Participants, Receiving Benefits	13,092	12,471
Active Participants, Not Receiving Benefits	23,495	23,997
	36,587	36,468

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. 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.

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, 2020 and June 30, 2019 are as follows:

2020	RHIC
Total OPEB Liability	\$ 229,740,674
RHIC Fiduciary Net Position	 145,620,917
Net OPEB Liability (Asset)	\$ 84,119,757
RHIC Fiduciary Net Position as a Percentage of the Total OPEB Liability	63.38%
2019	RHIC
2019 Total OPEB Liability	\$ RHIC 217,831,024
	\$
Total OPEB Liability	\$ 217,831,024

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

Actuarial Assumptions

Actuarial Cost

Method Entry Age Normal

Asset Valuation

Method

Plan Fiduciary Net Position (Market value of assets, no asset smoothing)

Inflation For June 30, 2020, 2.25%. For June 30, 2019, 2.50%

Salary Increases Not applicable

Investment Rate

of Return

For June 30, 2020, 6.50%. For June 30, 2019, 7.25%.

Mortality Rates For June 30, 2020, Pub-2010 Healthy Retiree Mortality table (for General Employees), sex-

distinct, with rates multiplied by 103% for mailes and 101% for females. Pub-2010 Disabled Retiree Mortality table (for General Employees), sex-distinct, with rates multiplied by 117% for males and 112% for females. Pub-2010 Employee Mortality table (for Geneeral Employees), sex-distinct, with rates multiplied by 92% for both males and females. Mortality rates are

projected from 2010 using the MP-2019 scale.

For June 30, 2019, 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: RHIC is for the most part a closed plan. There were no benefit changes during the year. 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, 2020 are summarized in the following table:

	Long-Term Expected
Asset Class	Real Rate of Return
Large Cap Domestic Equities	6.10%
Small Cap Domestic Equities	7.00%
International Equities	6.45%
Core-Plus Fixed Income	1.15%

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

Discount Rate

The discount rate used to measure the total OPEB liability was 6.50% as of June 30, 2020 and 7.25% as of June 30, 2019. 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, 2020, and July 1, 2019, PERS 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.

Sensitivity of Net OPEB Liability (Asset)

The following presents the net OPEB liability of the Plans as of June 30, 2020 (using a single discount rate of 6.50%) and June 30, 2019 (using a 7.25% single discount rate), 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:

Net OPEB Liability (Asset) as of June 30, 2020	1% Decrease (5.50%)	Current Discount (6.50%)	1% Increase (7.50%)
RHIC	\$ 110,324,972	\$ 84,119,757	\$ 61,959,773
Net OPEB Liability (Asset) as of June 30, 2019	1% Decrease (6.25%)	Current Discount (7.25%)	1% Increase (8.25%)
RHIC	\$ 102,516,136	\$ 80,318,738	\$ 61,317,668

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 healthcare cost trend rate was not performed.

NOTE 12 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 \$19,500 for calendar year 2020 (\$19,000 for 2019) or 100% of gross annual compensation. 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.

NOTE 12 DEFERRED COMPENSATION PLAN FOR PUBLIC EMPLOYEES (CONTINUED)

The deferred compensation plan had 14,044 and 12,934 active participants as of June 30, 2020 and 2019, respectively.

The related investments are reported at fair value as follows:

	2020	2020		2019	
Investment Balance by:		_		_	
State of North Dakota	\$ 121,097,251	87%	\$ 108,758,247	86%	
Other Jurisdictions	18,185,412	13%	17,634,809	14%	
Total Investments	\$ 139,282,663	100%	\$ 126,393,056	100%	

NOTE 13 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 14 UNIFORM GROUP INSURANCE PROGRAM SURPLUS

The Uniform Group Insurance Program, a proprietary fund, contracted with Sanford Health Plan 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 2017-2019 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 2017-2019 biennium will occur in 2021 with an initial settlement occurring in 2020. In the event of a loss, the system does not have any risk. For this period premiums exceeded claims, therefore, a gain of \$6.8 million will be returned to the system and is included as a receivable in the fiscal year 2020 financial statements.

The System again entered into a similar contract with Sanford Health Plan for the 2019-2021 biennium. The contract for the 2019-2021 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 2019-2021 biennium will occur in 2023. In the event of a loss, the system does not have any risk. No other insurance contracts have a gain sharing provision.

The accumulated surplus and other invested funds in the amounts of \$36.3 million and \$34.7 million are shown as cash, invested cash and commingled domestic fixed income investments on the Statement of Net Position as of June 30, 2020 and 2019, respectively.

NOTE 15 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:

NOTE 15 RISK MANAGEMENT (CONTINUED)

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 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 16 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 17 SUBSEQUENT EVENTS

The System evaluated subsequent events through December 7, 2020 which is the date the financial statements were available to be issued. Events or transactions occurring after June 30, 2020, but prior to December 7, 2020 that provided additional evidence about conditions that existed at June 30, 2020, have been recognized in the financial statements for the year ended June 30, 2020. Events or transactions that provided evidence about conditions that did not exist at June 30, 2020, 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, 2020.

NOTE 18 CONTINGENCY

The State Investment Board has been named as a defendant in a case arising out of the Tribune 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, in addition to assistance received from the ND Office of Attorney General. On July 15, 2019, the Litigation Trustee filed a Notice of Appeal to the Second Circuit, appealing the various judgments of the U.S. District Court that dismissed his claims against defendants in the Action and denying leave to amend his complaint to add a constructive fraudulent transfer claim. The Second Circuit held oral argument on August 24, 2020, and took the matter under advisement. No liability has been recorded for this case.

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

Public Employees Retirement System

		2020		2019		2018		2017		2016		2015		2014
Total Pension Liability														
Service Cost	\$	135,139,549	\$	172,183,673	\$, ,	\$	113,148,379	\$	126,443,929	\$	104,158,320	\$	94,611,357
Interest		317,129,009		294,701,001		279,835,016		269,769,850		243,284,784		236,419,648		218,719,441
Change of Benefit Terms		-		-		-		-		-		2,615		-
Differences Between Expected and														
Actual Experience		17,186,877		(210,895,384)		(65,345,796)		(3,612,020)		15,914,938		4,395,805		25,782,859
Changes of Assumptions		1,859,558,804		(464,473,143)		125,224,437		741,491,982		108,139,418		(76, 152, 255)		-
Benefit Payments, Including Refund of		(0.4.0 ==0.000)		(407 757 007)		(100 501 000)		(400 004 000)		(440.004.44)		(404 000 707)		(440,000,000)
Employee Contributions		(218,553,888)		(197,757,937)	_	(182,521,663)	_	(162,991,968)		(149,664,141)		(134,929,737)		(119,886,323)
Net Change in Total Pension Liability		2,110,460,351		(406,241,790)		321,210,065		957,806,223		344,118,928		133,894,396		219,227,334
Total Pension Liability - Beginning		4,269,339,965		4,675,581,755		4,354,371,690		3,396,565,467		3,052,446,539		2,918,552,143		2,699,324,809
Total Pension Liability - Ending (A)	\$	6,379,800,316	\$	4,269,339,965	\$	4,675,581,755	\$	4,354,371,690	\$	3,396,565,467	\$	3,052,446,539	\$	2,918,552,143
					_		_							
Plan Fiduciary Net Position														
Contributions - Employer	\$	85,504,033	\$	81,588,318	\$, ,	\$	78,933,571	\$	77,080,576	\$	70,842,535	\$	61,661,050
Contributions - Employee		81,477,666		78,213,580		77,486,189		76,007,456		74,218,276		68,392,061		59,394,200
Service Credit Repurchase		10,818,588		7,219,697		19,984,972		11,805,070		9,179,163		6,651,879		8,325,140
Net Investment Income		101,105,998		159,824,092		249,165,181		311,760,863		11,333,836		81,536,565		316,629,563
Transfers and Other Income		(2,580)		(5,641)		(24,440)		32,183		23,574,937		-		-
Benefit Payments, Including Refund of														
Employee Contributions		(218,553,888)		(197,757,937)		(182,521,663)		(162,991,968)		(149,664,141)		(134,929,737)		(119,886,324)
Administrative Expense		(2,729,759)		(2,531,304)		(2,472,761)		(2,607,243)		(2,537,799)		(2,365,357)		(2,210,792)
Net Change in Plan Fiduciary Net Position		57,620,058		126,550,805		242,344,687		312,939,932		43,184,848		90,127,946		323,912,837
Plan Fiduciary Net Position - Beginning		3,096,731,081		2,970,180,276		2,727,835,589		2,414,895,657		2,371,710,809		2,281,582,863		1,957,670,026
Plan Fiduciary Net Position - Ending (B)		3,154,351,139		3,096,731,081		2,970,180,276		2,727,835,589		2,414,895,657		2,371,710,809		2,281,582,863
			_		_				_					
Net Pension Liability - Ending (A)-(B)	\$	3,225,449,177	\$	1,172,608,884	\$	1,705,401,479	\$	1,626,536,101	\$	981,669,810	\$	680,735,730	\$	636,969,280
Plan Fiduciary Net Position as a Percentage														
of the Total Pension Liability		49.44%		72.53%		63.53%		62.65%		71.10%		77.70%		78.18%
Covered Payroll	\$	1.167.767.935	\$	1,098,416,146	\$		\$	1.063.371.798	\$	1,048,548,467	\$	973,536,402	\$	888,452,060
Plan Net Pension Liability (Asset) as a	•	, . , . , ,	•	, , ,	_	,,,	-	, ,	•	,,,,	•	,,	•	,,
Percentage of Covered Payroll		276.21%		106.75%		158.50%		152.96%		93.62%		69.92%		71.69%

^{*}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 Pension Liability and Related Ratios For the Years Ended June 30

Highway Patrolmen's Retirement System

		2020		2019		2018		2017		2016		2015		2014
Total Pension Liability		,												
Service Cost	\$	2,877,493	\$	2,818,006	\$	2,738,268	\$	2,701,326	\$	2,226,286	\$	2,038,291	\$	1,894,183
Interest		7,869,528		7,527,064		7,203,350		6,951,177		6,311,403		6,007,875		5,750,017
Change of Benefit Terms		-		-		-		-		-		-		-
Differences Between Expected and														
Actual Experience		729,281		(67,748)		(621, 359)		21,564		39,748		984,241		(299,964)
Changes of Assumptions		66,142,608		3,042,863		-		1,257,370		3,945,801		394,419		-
Benefit Payments, Including Refund of														
Employee Contributions		(5,704,586)		(5,391,115)		(4,981,377)		(4,806,319)		(4,713,495)		(4,745,510)		(3,784,735)
Net Change in Total Pension Liability		71,914,324		7,929,070		4,338,882		6,125,118		7,809,743		4,679,316		3,559,501
Total Pension Liability (Asset) - Beginning		106,315,030		98,385,960		94,047,078		87,921,960		80,112,217		75,432,901		71,873,400
Total Pension Liability (Asset) - Ending (A)	\$	178,229,354	\$	106,315,030	\$	98,385,960	\$	94,047,078	\$	87,921,960	\$		\$	75,432,901
		-,,	_	3 -,,	Ť	,,	<u> </u>	, ,	Ť	. ,	Ť	,,	Ť	-,,
Plan Fiduciary Net Position														
Contributions - Employer	\$	2,176,902	\$	2,090,886	\$	2,152,970	\$	2,155,944	\$	2,127,355	\$	2,002,291	\$	1,864,632
Contributions - Employee		1,469,682		1,411,619		1,453,533		1,455,540		1,436,236		1,351,798		1,243,520
Service Credit Repurchase		205,461		167,824		281,573		249,436		-		96,429		87,418
Net Investment Income		2,667,371		4,250,901		6,716,525		8,500,352		316,963		2,334,780		9,239,929
Transfers and Other Income		(16)		(41)		(187)		221		-		-		-
Benefit Payments, Including Refund of														
Employee Contributions		(5,704,586)		(5,391,115)		(4,981,377)		(4,806,319)		(4,713,495)		(4,745,510)		(3,784,735)
Administrative Expense		(45,870)		(43,555)		(30,353)		(30, 195)		(31,450)		(30,925)		(27,983)
Net Change in Plan Fiduciary Net Position		768,944		2,486,519		5,592,684		7,524,979		(864,391)		1,008,863		8,622,781
Plan Fiduciary Net Position - Beginning		81,415,519		78,929,000		73,336,316		65,811,337		66,675,728		65,666,865		57,044,084
Plan Fiduciary Net Position - Ending (B)		82,184,463		81,415,519		78,929,000		73,336,316		65,811,337		66,675,728		65,666,865
Net Pension Liability (Asset) - Ending (A)-(B)	\$	96,044,891	\$	24,899,511	\$	19,456,960	\$	20,710,762	\$	22,110,623	\$	13,436,489	\$	9,766,036
Plan Fiduciary Net Position as a Percentage														
of the Total Pension Liability	_	46.11%	_	76.58%	_	80.22%	_	77.98%	_	74.85%	_	83.23%	_	87.05%
Covered Payroll	\$	11,409,711	\$	10,354,210	\$	10,737,297	\$	10,629,403	\$	10,526,791	\$	10,145,713	\$	9,348,386
Plan Net Pension Liability (Asset) as a Percentage of Covered Payroll		841.78%		240.48%		181.21%		194.84%		210.04%		132.44%		104.47%

^{*}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 Pension Liability and Related Ratios For the Years Ended June 30

Retirement Plan for Employees of Job Service North Dakota

		2020		2019		2018		2017		2016		2015		2014
Total Pension Liability														
Service Cost	\$	57,560	\$	70,295	\$	80,344	\$	55,500	\$	71,420	\$	127,734	\$	87,668
Interest		3,038,156		3,129,175		3,500,344		4,130,232		4,281,440		5,026,167		5,107,459
Change of Benefit Terms		-		-		-		-		-		-		-
Differences Between Expected and														
Actual Experience		(1,122,296)		(504,895)		(310,124)		(1,648,283)		(2,006,791)		(1,806,271)		(1,607,033)
Changes of Assumptions		539,852		-		5,811,755		4,421,401		69,885		(309,878)		-
Benefit Payments, Including Refund of														
Employee Contributions		(4,581,575)		(4,626,846)		(4,582,577)		(4,534,153)		(4,601,196)		(4,694,171)		(4,594,462)
Net Change in Total Pension Liability		(2,068,303)		(1,932,271)		4,499,742		2,424,697		(2,185,242)		(1,656,419)		(1,006,368)
Total Pension Liability (Asset) - Beginning		66,196,940		68,129,211		63,629,469		61,204,772		63,390,014		65,046,433		66,052,801
Total Pension Liability (Asset) - Ending (A)	\$	64,128,637	\$	66,196,940	\$	68,129,211	\$	63,629,469	\$	61,204,772	\$	63,390,014	\$	65,046,433
Total I chaon Elability (Asset) - Elianing (A)	=	01,120,007	<u></u>	00,100,010	<u></u>	00,120,211	<u> </u>	00,020,100		01,201,112	_	00,000,011		00,010,100
Plan Fiduciary Net Position														
Contributions - Employer	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Contributions - Employee		27,047		29,159		32,987		39,417		44,178		50,142		55,748
Service Credit Repurchase		-		-		-		-		-		-		-
Net Investment Income		2,621,067		6,229,630		2,918,585		5,238,877		4,840,333		3,260,507		11,887,840
Transfers and Other Income		-		-		-		-		-		-		-
Benefit Payments, Including Refund of														
Employee Contributions		(4,581,575)		(4,626,846)		(4,582,577)		(4,534,153)		(4,601,196)		(4,694,171)		(4,594,462)
Administrative Expense		(19,148)		(16,808)		(46,295)		(12,684)		(32,253)		(30,214)		(31,455)
Net Change in Plan Fiduciary Net Position		(1,952,609)		1,615,135		(1,677,300)		731,457		251,062		(1,413,736)		7,317,671
Plan Fiduciary Net Position - Beginning		97,203,246		95,588,111		97,265,411		96,533,954		96,282,892		97,696,628		90,378,957
Plan Fiduciary Net Position - Ending (B)		95,250,637		97,203,246		95,588,111		97,265,411		96,533,954		96,282,892		97,696,628
Net Pension Liability (Asset) - Ending (A)-(B)	\$	(31,122,000)	\$	(31,006,306)	\$	(27,458,900)	\$	(33,635,942)	\$	(35,329,182)	\$	(32,892,878)	\$	(32,650,195)
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Plan Fiduciary Net Position as a Percentage														
of the Total Pension Liability		148.53%		146.84%		140.30%		152.86%		157.72%		151.89%		150.20%
Covered Payroll	\$	314,607	\$	416,552	\$	416,652	\$	498,564	\$	564,684	\$	790,649	\$	842,601
Plan Net Pension Liability (Asset) as a Percentage of Covered Payroll		(9,892.34)%		(7,443.56)%		(6,590.37)%		(6,746.56)%		(6,256.45)%		(4,160.24)%		(3,874.93)%
reicentage of covered rayion		(3,032.34)70		(1,443.30)70		(0,000.01)70		(0,740.00)70		(0,230.43)70		(7,100.24)70		(3,014.33)70

^{*}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

		2020		2019		2018		2017
Total OPEB Liability						,		,
Service Cost	\$	4,041,849	\$	3,827,807	\$	3,766,661	\$	3,430,578
Interest		15,498,021		15,217,017		14,485,170		14,327,443
Change of Benefit Terms		-		-		-		-
Differences Between Expected and								
Actual Experience		314,726		(1,374,146)		2,732,254		(2,231,206)
Changes of Assumptions		4,372,129		5,002,621		-		8,860,723
Benefit Payments, Including Refund of								
Employee Contributions		(12,317,075)		(11,505,070)		(11,016,060)		(10,014,370)
Net Change in Total OPEB Liability		11,909,650		11,168,229		9,968,025		14,373,168
Total OPEB Liability (Asset) - Beginning		217,831,024		206,662,795		196,694,770		182,321,602
Total OPEB Liability (Asset) - Ending (A)	\$	229,740,674	\$	217,831,024	\$	206,662,795	\$	196,694,770
Plan Fiduciary Net Position								
Contributions - Employer	\$	13,392,266	\$	12,977,460	\$	12,834,547	\$	12,575,627
Contributions - Employee		16,319		15,859		15,984		16,173
Service Credit Repurchase		556,585		377,329		746,942		464,323
Net Investment Income		6,904,869		8,178,932		8,210,898		12,074,082
Transfers and Other Income		-		-		-		-
Benefit Payments, Including Refund of								
Employee Contributions		(12,317,075)		(11,505,070)		(11,016,060)		(10,014,370)
Administrative Expense		(453,913)		(437,349)		(480,244)		(443,220)
Other		9,580		(857)		225		
Net Change in Plan Fiduciary Net Position		8,108,631		9,606,304		10,312,292		14,672,615
Plan Fiduciary Net Position - Beginning		137,512,286		127,905,982		117,593,690		102,921,075
Plan Fiduciary Net Position - Ending (B)		145,620,917		137,512,286		127,905,982		117,593,690
Net OPEB Liability (Asset) - Ending (A)-(B)	\$	84,119,757	\$	80,318,738	\$	78,756,813	\$	79,101,080
Plan Fiduciary Net Position as a Percentage								
of the Total OPEB Liability		63.38%		63.13%		61.89%		59.78%
Covered Payroll	\$	1,139,970,530	\$	1,115,857,588	\$	1,094,216,775	\$	1,081,841,008
Plan Net Pension Liability (Asset) as a	7	,,,	*	, , ,	*	,,,	+	, , , - 00
Percentage of Covered Payroll		7.38%		7.20%		7.20%		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										
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially Determined Contribution Contributions in Relation to the	140,537	127,129	125,714	116,564	124,336	107,514	107,864	97,985	91,458	82,910
Actuarially Determined Contribution	85,504	81,588	80,727	78,934	77,081	70,843	61,661	48,847	38,006	32,278
Contribution Deficiency (Excess)	55,033	45,541	44,987	37,630	47,255	36,671	46,203	49,138	53,452	50,632
Covered Payroll	1,167,768	1,098,416	1,075,958	1,063,372	1,048,548	973,536	888,452	800,878	804,169	769,710
Contributions as a Percentage of Covered Payroll	7.32%	7.43%	7.50%	7.42%	7.35%	7.28%	6.94%	6.10%	4.73%	4.19%
Highway Patrolmen's Retirement Syste										
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially Determined Contribution Contributions in Relation to the	3,256	2,936	2,949	3,060	2,307	2,201	2,348	2,191	2,171	1,744
Actuarially Determined Contribution	2,177	2,091	2,153	2,156	2,127	2,002	1,865	1,586	1,423	1,286
Contribution Deficiency (Excess)	1,079	845	796	904	180	199	483	605	748	458
Covered Payroll	11,410	10,354	10,737	10,629	10,527	10,146	9,348	8,167	8,002	7,738
Contributions as a Percentage of Covered Payroll	19.08%	20.20%	20.05%	20.28%	20.21%	19.73%	19.95%	19.42%	17.78%	16.62%
Retiree Health Insurance Credit Plan										
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially Determined Contribution Contributions in Relation to the	12,145	12,707	12,252	11,696	7,544	6,439	7,014	7,411	7,263	7,053
Actuarially Determined Contribution	13,392	12,977	12,835	12,575	12,350	11,479	10,710	9,960	9,388	8,930
Contribution Deficiency (Excess)	(1,247)	(270)	(583)	(879)	(4,806)	(5,040)	(3,696)	(2,549)	(2,125)	(1,877)
Covered Payroll Contributions as a Percentage of	1,139,971	1,115,858	1,094,217	1,081,841	1,142,375	1,052,657	1,001,204	914,368	824,855	828,978
Covered Payroll	1.17%	1.16%	1.17%	1.16%	1.08%	1.09%	1.07%	1.09%	1.14%	1.08%

PERS

Benefit Changes:

The interest rate earned on member contributions will decrease from 7.00 percent to 6.50 percent effective January 1, 2021 (based on the adopted decrease in the investment return assumption). New Main System and Public Safety members who are hired on or after January 1, 2020 will have a benefit multiplier of 1.75 percent (compared to the current benefit multiplier of 2.00 percent). The fixed employer contribution for new members of the Main System will increase from 7.12 percent to 8.26 percent. For members who terminate after December 31, 2019, final average salary is the higher of the final average salary calculated on December 31, 2019 or the average salary earned in the three highest periods of twelve consecutive months employed during the last 180 months of employment. There have been no other changes in plan provisions since the previous actuarial valuation as of July 1, 2019.

Changes of Assumptions:

The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2020 actuarial valuation:

- The investment return assumption was lowered from 7.5 to 7.0 percent for the July 1, 2020 valuation
- The assumed rate of price inflation was lowered from 2.5 to 2.25 percent for the July 1, 2020 valuation
- The assumed rate of total payroll growth was updated for the July 1, 2020 valuation
- Mortality table updates were made for the July 1, 2020 valuation

All other actuarial assumptions used in the July 1, 2020 are the same as the last actuarial valuation as of July 1, 2019.

HPRS

Benefit Changes:

For members who terminate employment after December 31, 2019, final average salary is the higher of the final average salary calculated on December 31, 2019, or the average salary earned in the three highest periods of twelve consecutive months employed during the last one hundred eighty months of employment.

Changes of Assumptions:

The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2020 actuarial valuation:

- The investment return assumption was lowered from 7.5 to 7.0 percent for the July 1, 2020 valuation
- The assumed rate of price inflation was lowered from 2.5 to 2.25 percent for the July 1, 2020 valuation
- The assumed rate of total payroll growth was lowered from 3.75 to 3.5 percent for the July 1, 2020 valuation
- Mortality table updates were made for the July 1, 2020 valuation

All other actuarial assumptions used in the July 1, 2020 are the same as the last actuarial valuation as of July 1, 2019.

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, 2020 actuarial valuation:

 The investment return assumption was lowered from 4.75 to 4.25 percent for the July 1, 2020 valuation

- The assumed rate of price inflation was lowered from 2.5 to 2.25 percent for the July 1, 2020 valuation
- The assumed cost of living adjustment was lowered from 2.5 to 2.25 percent for the July 1, 2020 valuation
- Mortality table updates were made for the July 1, 2020 valuation

All other actuarial assumptions used in the July 1, 2020 are the same as the last actuarial valuation as of July 1, 2019.

RHIC

Benefit Changes: Beginning January 1, 2020, members first enrolled in the NDPERS Main

System and the Defined Contribution Plan on or after that date will not be

eligible to participate in RHIC

Changes of Assumptions: The Board approved the following changes to the actuarial assumptions beginning with the July 1, 2020 actuarial valuation:

• The investment return assumption was lowered from 7.25 to 6.5 percent for the July 1, 2020 valuation

- The assumed rate of price inflation was lowered from 2.5 to 2.25 percent for the July 1, 2020 valuation
- The assumed rate of total payroll growth was lowered from 3.75 to 3.5 percent for the July 1, 2020 valuation
- Mortality table updates were made for the July 1, 2020 valuation

All other actuarial assumptions used in the July 1, 2020 are the same as the last actuarial valuation as of July 1, 2019.

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Schedule of Employer Contributions – PERS

Valuation date July 1, 2019

Actuarial cost method Entry Age Normal Method.

Amortization Method Level Percentage of Payroll, Open Period

Assumed annual payroll growth of 3.75% (3.25% for Judges)

Remaining amortization period 20 years

Asset valuation method 5-Year smoothed marked

Inflation 2.50%

Salary Increases 4.00% to 20.00% including inflation

Investment Rate of Return For June 30, 2020, 7.5%. For June 30, 2019, 7.75%.

Retirement Age Age-based table of rates that are specific to the type of eligibility condition

Mortality For June 30, 2020 and June 30, 2019, 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: The calculation of Final Average Salary was changed for members who

terminate after December 31, 2019.

The interest rate on member contributions will decrease from 7.25% to 7.00% effective January 1.2020

7.00% effective January 1, 2020.

The benefit accrual rate for members first enrolled on or after January 1, 2020 in the Main and Public Safety Systems is 1.75% (compared to 2.00% for members enrolled before January 1, 2020).

The investment return assumption was updated from 7.75% to 7.50% beginning with the actuarial valuation as of July 1, 2019. The economic assumptions (excluding salary increases) were updated beginning with the actuarial valuation as of July 1, 2017 based on a review performed by GRS.

The employer rates to the System are the statutory/Board approved contribution rates of 7.12% of payroll for the Main System (8.26% for members enrolled on or after January 1, 2020), 17.52% for the Judges System, 9.81% for Public Safety with prior Main System service System and 7.93% for Public Safety without prior Main System service System.

Schedule of Employer Contributions – HPRS

Valuation date July 1, 2019

Actuarial cost method Entry Age Normal Method.

Amortization Method Level Percentage of Payroll, Open Period

Assumed annual payroll growth of 3.75%

Remaining amortization period 20 years

Asset valuation method 5-Year smoothed marked

Inflation 2.50%

Salary Increases Service-based table for members with less than five years of service and age-

based table for members with more than five years of service

Investment Rate of Return For June 30, 2020, 7.5%. For June 30, 2019, 7.75%

Retirement Age Age-based table of rates that are specific to the type of eligibility condition

Mortality For June 30, 2020 and June 30, 2019, 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.

The economic assumptions (excluding salary increases) were updated beginning with the actuarial valuation as of July 1, 2017 based on a review performed by GRS. The investment return assumption was decreased from 7.75% to 7.50% beginning with the actuarial valuation as of July 1, 2019. All other actuarial assumptions were adopted by the Board 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 19.70% of payroll.

Schedule of Employer Contributions – Job Service

Valuation date July 1, 2019

Actuarial cost method Frozen Initial Liability (Aggregate since no initial Liability remains

Amortization Method N/A

Asset valuation method 5-Year smoothed marked

 Inflation
 2.50%

 COLA
 2.50%

 Salary Increases
 3.50%

 Investment Rate of Return
 4.75%

Retirement Age Age-based table of rates that are specific to the type of eligibility condition

Mortality For June 30, 2020 and June 30, 2019, 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.

The economic assumptions (excluding salary increases) were updated beginning with the actuarial valuation as of July 1, 2017 based on a review performed by GRS. The Board approved lowering the investment return assumption from 5.70% to 4.75% beginning with the July 1, 2018, actuarial valuation. All other actuarial assumptions were adopted by the Board based on an experience study covering the period July 1, 2009 through June 30, 2014

The System has assets in excess of the present value of future benefits. Therefore, no employer contributions are being made.

Schedule of Employer Contributions - RHIC

Valuation date July 1, 2019

Actuarial cost method Entry Age Normal Method.

Amortization Method N/A

Asset valuation method 5-Year smoothed marked

Inflation 2.50%

Salary Increases Not Applicable

Investment Rate of Return 7.50%

Retirement Age Age-based table of rates that are specific to the type of eligibility condition

Mortality For June 30, 2020 and June 30, 2019 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:

Beginning January 1, 2020, members first enrolled in the NDPERS Main System and the Defined Contribution Plan on or after that date will not be eligible to participate in RHIC. Therefore, RHIC will become for the most part a closed plan. There were no other benefit changes during the year.

The economic assumptions (excluding salary increases) and the asset smoothing method were updated beginning with the actuarial valuation as of July 1, 2017 based on a review performed by GRS. All other actuarial assumptions were adopted by the Board based on an experience study covering the period July 1, 2009, through June 30, 2014.

The determination of the actuarial rate was changed effective July 1, 2019 to equal the rate needed to pay off the unfunded liability and future NC contributions at the end of 20 years as a level percent of closed group (decreasing) payroll.

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

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

_	2020	2019	2018	2017	2016	2015	2014	2013
Public Employees Retirement	3.57%	5.69%	9.21%	13.01%	0.49%	3.61%	16.29%	13.52%
Highway Patrolmen's Retirement	3.28%	5.39%	9.16%	12.93%	0.48%	3.66%	16.20%	13.38%
Retirement Plan for Employees								
Job Service North Dakota	3.09%	7.00%	3.32%	5.85%	5.14%	3.41%	13.46%	12.07%
Retiree Health Insurance Credit Fund	5.37%	6.75%	7.01%	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 Supplemental Information Schedule of Investment Expenses – Fiduciary Funds For the Fiscal Year Ended June 30, 2020

	Public Employees Retirement System*	Pa Re	lighway trolmen's etirement System	In	Retiree Health Isurance edit Fund	Con Ret	efined tribution irement Fund	Ben	etax efits gram	Compe	erred ensation gram	b Service etirement Plan
Payments to State Investment Board:												
Investment Fees	\$ 8,016,185	\$	211,500	\$	417,596	\$	-	\$	-	\$	-	\$ 320,937
Administrative Expenses	433,642		11,446		_		-		-		-	_
·	8,449,827		222,946		417,596		-		-	<u> </u>	-	320,937
Payments to Providers: Investment Fees (Net of Plan												
Servicing Credits)							8,520		_			
Total Investment Expenses	\$ 8,449,827	\$	222,946	\$	417,596	\$	8,520	\$		\$		\$ 320,937

^{*}Also includes GASB 68 admin expenses of the Retirement & Investment Office

North Dakota Public Employees Retirement System – Financial Section Supplemental Information Schedule of Investment Expenses – Fiduciary Funds For the Fiscal Year Ended June 30, 2019

	Public Employees Retirement System*		Pat Re	lighway trolmen's stirement System	In	Retiree Health Isurance edit Fund	Con Ref	efined tribution tirement Fund	Ber	etax nefits gram	Comp	erred ensation gram		b Service etirement Plan
Payments to State Investment Board:									,		,			
Investment Fees	\$ 7,535,95	4	\$	200,628	\$	391,416	\$	-	\$	-	\$	-	\$	311,651
Administrative Expenses	502,10	7		16,937		-		_		-		-		_
	8,038,06	1		217,565		391,416		-		-		-	<u> </u>	311,651
Payments to Providers: Investment Fees (Net of Plan														
Servicing Credits)		<u>-</u>						8,009						
Total Investment Expenses	\$ 8,038,06	1_	\$	217,565	\$	391,416	\$	8,009	\$		\$	_	\$	311,651

^{*}Also includes GASB 68 admin expenses of the Retirement & Investment Office

North Dakota Public Employees Retirement System – Financial Section Supplemental Information Schedule of Administrative Expenses – Fiduciary Funds For the Fiscal Year Ended June 30, 2020

	Public	Highway	Retiree	Defined			
	Employees	Patrolmen's	Health	Contribution	Pretax	Deferred	Job Service
	Retirement	Retirement	Insurance	Retirement	Benefits	Compensation	Retirement
	System	System	Credit Fund	Fund	Program	Program	Plan
Personnel Services:							
Salaries	\$ 982,254	\$ 6,311	\$ 55,788	\$ 1,909	\$ 152,034	\$ 273,235	\$ 2,758
Social Security	72,598		4,103	140	11,185	20,060	203
Retirement	109,138	701	6,295	215	17,432	32,108	311
Insurance	261,771		14,546	498	39,636	64,134	719
Total Personnel Services	1,425,761	9,160	80,732	2,762	220,287	389,537	3,991
Professional Services:							
Actuarial	221,643	28,968	21,200	-	-	-	9,250
Audit	43,052	277	11,097	89	8,768	17,536	128
Data Processing	319,049		21,198	1,896	76,539	161,329	1,048
Consulting	15,314	98	4,000	-	-	-	-
Legal Counsel	28,874	186	1,720	303	2,725	16,710	77
Misc Outside Services	45,754		263,744	187	77,202	14,489	1,735
Total Professional Services	673,686	31,873	322,959	2,475	165,234	210,064	12,238
Communication:							
Printing	8,076	52	397	14	658	658	20
Postage	31,216	201	1,489	51	3,504	3,504	74
Telephone	10,878	70	627	21	1,912	2,608	31_
Total Communication	50,170	323	2,513	86	6,074	6,770	125
Rentals:							
Equipment Rent	1,537	10	105	4	387	773	5
Office Rent	71,352	458	4,678	160	16,833	33,476	231_
Total Rentals	72,889	468	4,783	164	17,220	34,249	236
Miscellaneous:							
Depreciation/Amortization	393,587	3,506	37,714	2,681	99,063	198,126	2,301
Dues & Prof Development	12,102	78	542	19	1,016	2,944	26
Insurance	657	4	45	2	165	331	2
Repairs and Maintenance	340	2	23	1	85	1,453	1
Supplies	92,408	404	4,245	145	22,976	30,287	210
Travel	8,158	52	357	12	127	2,190	18_
Total Miscellaneous	507,252	4,046	42,926	2,860	123,432	235,331	2,558
Total Administrative Expenses	\$ 2,729,758	\$ 45,870	\$ 453,913	\$ 8,347	\$ 532,247	\$ 875,951	\$ 19,148

North Dakota Public Employees Retirement System – Financial Section Supplemental Information Schedule of Administrative Expenses – Fiduciary Funds For the Fiscal Year Ended June 30, 2019

	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
Personnel Services:							
Salaries	\$ 816,058	\$ 5,318	\$ 61,395	\$ 1,925	\$ 164,069	\$ 321,394	\$ 2,995
Social Security	60,428	394	2,905	91	12,107	23,717	142
Retirement	96,574	629	6,020	189	18,769	36,962	294
Insurance	211,073	1,376	13,983	438	38,795	62,501	682
Total Personnel Services	1,184,133	7,717	84,303	2,643	233,740	444,574	4,113
Professional Services:							
Actuarial	182,365	27,345	20,550	-	-	-	6,900
Audit	72,975	476	2,560	86	6,286	12,209	134
Data Processing	301,051	1,962	5,722	1,355	24,238	137,484	749
Consulting	69,399	452	9,640	302	51,059	4,569	-
Legal Counsel	31,867	208	4,113	596	3,427	11,029	89
Misc Outside Services	24,079	163	248,084	86	99,714	11,326	1,322
Total Professional Services	681,736	30,606	290,669	2,425	184,724	176,617	9,194
Communication:							
Printing	13,318	87	1,388	44	1,646	1,675	68
Postage	42,744	279	1,698	70	4,345	4,345	83
Telephone	9,534	62	3,030	95	1,704	2,387	148
Total Communication	65,596	428	6,116	209	7,695	8,407	299
Rentals:							
Equipment Rent	1,780	12	122	4	448	896	6
Office Rent	71,153	464	3,694	116	17,285	34,359	180
Total Rentals	72,933	476	3,816	120	17,733	35,255	186
Miscellaneous:							
Depreciation/Amortization	390,104	3,447	37,454	2,672	98,192	196,385	2,289
Dues & Prof Development	15,260	99	4,631	145	1,034	1,794	226
Insurance	381	2	278	9	96	187	13
Repairs and Maintenance	2,231	15	1,634	51	557	1,114	80
Supplies	105,689	679	7,712	238	25,985	51,729	372
Travel	13,241	86	736	23	492	554	36
Total Miscellaneous	526,906	4,328	52,445	3,138	126,356	251,763	3,016
Total Administrative Expenses	\$2,531,304	\$ 43,555	\$ 437,349	\$ 8,535	\$ 570,248	\$ 916,616	\$ 16,808

North Dakota Public Employees Retirement System – Financial Section Supplemental Information Schedule of Consultant Expenses – Fiduciary Funds For the Fiscal Year Ended June 30, 2020

	Public	Highwa	/ Retiree	Defined			
	Employees	Patrolme	n's Health	Contribution	Pretax	Deferred	Job Service
	Retirement	Retireme	nt Insurance	Retirement	Benefits	Compensation	Retirement
	System	Systen	Credit Fund	Fund	Program	Program	Plan
Actuary Fees:							
Gabriel Roeder Smith & Co	\$ 221,643	\$ 28,9	88 \$ 21,200	\$ -	\$ -	\$ -	\$ 9,250
Audit/Accounting Fees:							
CliftonLarsonAllen LLP	43,052	2	77 11,097	89	8,768	17,536	128
Disability Consulting Fees:							
Mid Dakota Clinic	4,850		-	-	-	-	-
IT Consulting:							
Sagitec Solution LLC	201,675	1,2	7 13,748	470	50,743	101,486	680
Agency MABU	161			-	40	81	-
Miscellaneous Consulting Fees:							
Gabriel Roeder Smith & Co	10,462	!	98 4,000	-	-	-	-
Ice Miller, LLP	4,730	;	30 511	17	971	13,131	25
ND Attorney General	19,853	1	28 1,092	282	1,754	3,579	46_
Totals	\$ 506,426	\$ 30,7	98 \$ 51,648	\$ 858	\$ 62,276	\$ 135,813	\$ 10,129

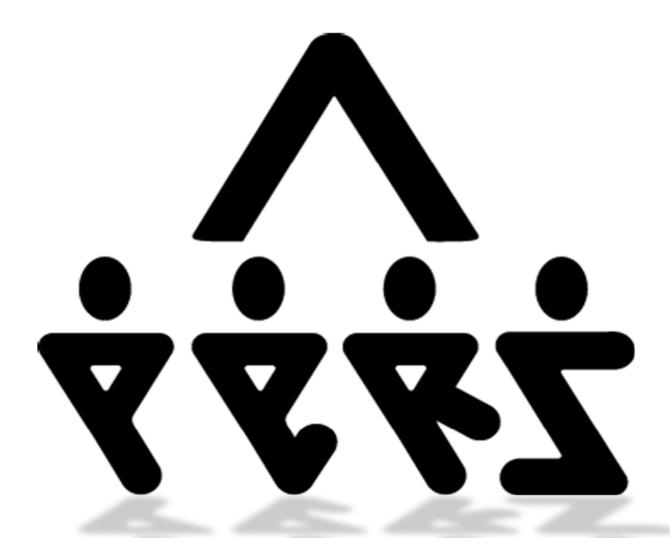
North Dakota Public Employees Retirement System – Financial Section Supplemental Information Schedule of Consultant Expenses – Fiduciary Funds For the Fiscal Year Ended June 30, 2019

	Public	lighway		Retiree	Defined	_		_		
	Employees	trolmen's		Health	ntribution	Pre			Deferred	Service
	Retirement	 tirement		surance	tirement	Bene			npensation	irement
	System	 System	Cre	edit Fund	 Fund	Prog	ram	F	Program	 Plan
Actuary Fees:										
Gabriel Roeder Smith & Co	\$ 182,365	\$ 27,345	\$	20,550	\$ -	\$	-	\$	-	\$ 6,900
Audit/Accounting Fees:										
CliftonLarsonAllen LLP	72,975	476		2,560	86	6,	286		12,209	134
Disability Consulting Fees:										
Mid Dakota Clinic	7,000	-		-	-		-		-	-
IT Consulting:										
Sagitec Solution LLC	179,519	1,179		9,640	302	45,	175		90,349	470
Agency MABU	1,436	-		-	-		359		718	-
Miscellaneous Consulting Fee	es:									
Gabriel Roeder Smith & Co	62,399	452		-	-	5,	525		4,569	-
Ice Miller, LLP	2,331	15		691	22		48		2,672	34
ND Attorney General	29,536	 193		3,422	 574	3,	379		8,357	 55
Totals	\$ 537,561	\$ 29,660	\$	36,863	\$ 984	\$60,	772	\$	118,874	\$ 7,593

	Approved Fiscal Years 2020-2021	Fiscal Year 2020 Expenditures	Unexpended
ALL FUND TYPES			
Salaries and Wages	6,652,604	3,026,429	3,626,175
Operating Expenses	2,483,592	1,136,257	1,347,335
Capital Assets	338,000	264,000	74,000
Contingency	102,000	-	102,000
	9,576,196	4,426,686	5,149,510

Reconciliation of Administrative Expenses to Appropriated Expenditures

Administrative expenses as reflected in the financial statements	2020
Pension and OPEB trust funds	4,665,235
Enterprise funds - Group Insurance	369,723,754
Total administrative expenses	374,388,989
Adjustments:	
Change in accrued compensated absences	(43,248)
Professional Fees, premiums and benefits paid pursuant to NDCC54-52-04(6)	(368,884,922)
Amortization Expense	(1,034,168)
Contribution/premium over & short	35
	4,426,686



INVESTMENT SECTION



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December 1, 2020

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, 2020.

Introduction

For the fiscal year ended June 30, 2020, the North Dakota Public Employees Retirement System (PERS) investment portfolio experienced a net total return of 3.41%. The Job Service Pension Plan experienced a net total return of 2.82% for the same time period, while the Retiree Health Insurance Credit Fund returned 4.98% 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, 2020

Accommodative global central banking policy propelled financial markets in the first half of the 2020 fiscal year. In the U.S., the Federal Reserve lowered the federal funds target rate by 25 basis points (bps) in each of three meetings during FY2020: July, September, and October. The European Central Bank lowered the deposit rate by ten bps in September and announced that its quantitative easing program would resume in the fourth calendar quarter of 2019. U.S. Treasury yields fell in the first half of the fiscal year. However, Treasuries lagged the broader bond market, with the riskier corporate and high yield segments of fixed income outperforming. The 10-year U.S. Treasury yield briefly dipped below the two-year yield in August, which raised investors' concerns as a potential indication of impending recession.

Despite the omen, the overall U.S. economic landscape remained resilient with unemployment dropping to 3.5% in December and GDP growing by 2.1% annualized in the fourth calendar quarter of 2019. Trade relations between the U.S. and China also improved in the first half of the fiscal year, with the two nations announcing a phase one trade deal. Domestically, however, the political situation became less stable with Congress launching an official impeachment inquiry into President Trump.

The global economic and political landscapes changed in the third fiscal quarter as people sheltered in place to slow the spread of COVID-19. The S&P 500 Index reached a record high in February 2020 and then declined precipitously, dropping over 30%. The pandemic-induced decline marked the fastest 20% decline (the threshold rate for a bear market) in the history of the index. As the virus spread outside of China, governments around the world closed non-essential businesses and encouraged social distancing procedures. These preventative measures resulted in significantly slowed economic activity and widespread unemployment. The U.S. unemployment rate peaked in April 2020 at 14.7%, the highest measure on record since the Bureau of Labor Statistics started tracking seasonally adjusted data in 1948.

In response to the pandemic, governments stepped in to provide relief through fiscal stimulus packages aimed at providing economic support to both individuals and businesses. Central banks infused liquidity into financial markets by cutting interest rates and expanding asset purchase programs. This support bolstered financial markets and led the S&P 500 index to its strongest quarterly performance since 1998, a 20.5% return in the fourth fiscal quarter of 2020. Developed and emerging market equity indices also participated in the recovery, posting returns just shy of 20% in the fourth fiscal quarter ended June 30, 2020. High yield bond and emerging market debt markets were up over 10%

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in the same quarter. After falling 65% in the third fiscal quarter, West Texas Intermediate (WTI) Crude prices doubled in the fourth quarter, closing the fiscal year near \$40 a barrel.

U.S. GDP dropped significantly at the end of the 2020 fiscal year. After falling at a 5% annualized rate in the third fiscal quarter, GDP declined 31.4% annualized in the final quarter. By comparison, the European Union experienced a 54% annualized contraction in GDP in the fourth fiscal quarter.

Domestic Equity

U.S. equities generated positive returns in the fiscal year ended June 30, 2020. Several of the same themes from the 2019 fiscal year persisted into 2020, with large capitalization stocks outperforming small caps, and the growth style outpacing value. The S&P 1500, a broad market indicator for the U.S. stock market, appreciated 6.08% in the fiscal year. Despite the overall strength of the asset class, there was significant disparity among size and style. The large cap index (S&P 500) grew by 7.51% over the period while the small cap index (S&P 600) declined by 11.29%. Similarly, the Russell 3000 Growth Index surged 21.94%, while the Russell 3000 Value Index fell by 9.42%.

International Equity

Developed international equities, as represented by the MSCI EAFE Index, produced a loss of 5.13% in the 2020 fiscal year. As with U.S. equities, international growth significantly outperformed value. The MSCI EAFE Growth Index climbed 4.15%, while the MSCI EAFE Value Index declined by 14.48%. Emerging market equities, as measured by the MSCI EM Index, fell by 3.39% during the fiscal year, marginally outpacing their developed market counterparts.

Private Equity

Private equity remained an attractive asset class in the 2020 fiscal year with institutional investors placing significant capital into new programs. According to Pitchbook, 1,440 new partnerships were formed raising \$749 billion in commitments during the 12-month period. This was a higher total dollar amount invested in the asset class when compared to fiscal year 2019. Due to the nature of private equity performance measurement, benchmark comparisons of fund performance are inherently imprecise.

Domestic Fixed Income

Due to falling interest rates, the U.S. fixed income market notched another impressive fiscal year performance. The Bloomberg Aggregate Bond Index rose 8.74%, outpacing U.S. equities during the 2020 fiscal year period. Interest rates, broadly, declined throughout the year. The U.S. Federal Reserve was particularly active, lowering the Federal Funds Target Rate by a total of 2.25% throughout the 2020 fiscal year, down to the historic lower bound of 0.0% to 0.25%. The 10-year Treasury yield dropped 1.34 percentage points during the 12-month period to end the fiscal year at 0.66%. The declining rate environment, coupled with pandemic-induced risk aversion in the third fiscal quarter propelled the Bloomberg Government Long Index 25.14% higher during the 12-month period. Similarly, the higher risk Bloomberg Corporate High Yield Index lagged the Bloomberg Credit Index during the period, with the indices gaining 0.03% and 9.07% respectively.

International Fixed Income

As in the U.S., developed international fixed income markets outperformed their equity counterparts in the 2020 fiscal year. The FTSE Non-U.S. World Government Hedged Bond Index appreciated 4.33% during the 12-month period, while the unhedged index underperformed with a 0.86% return. European sovereign debt started the fiscal year with three consecutive quarters of negative performance before rebounding to end the fiscal year in positive territory. The FTSE Euro Government Bond Index produced a gain of 1.39% for the 2020 fiscal year, after climbing 4% in the fourth quarter. Emerging market debt generally performed in line with non-U.S. developed markets in 2020 after an outstanding 2019 fiscal year. The JP Morgan Emerging Markets Bond Index Plus produced a 1.23% return over the trailing 12-month period ended June 30, 2020.

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Real Estate

The NCREIF Property Index, a measure of the domestic direct private real estate market, appreciated 2.69% during the 2020 fiscal year. The index declined 0.99% in the fourth fiscal quarter, marking an end to the 41-quarter consecutive streak of positive performance. The FTSE NAREIT Equity Index, a measure of the public real estate securities market, declined 13.04% in fiscal year 2020. Being publicly-traded securities, Real Estate Investment Trusts tend to demonstrate higher correlations to public equities over shorter time periods as compared to private real estate. In the third fiscal quarter, the FTSE NAREIT Equity Index fell by over 27%, while the NCREIF Property Index increased by 0.71%.

Timber

The market value of the NCREIF Timberland Property Index declined in the 2020 fiscal year, despite adding acreage. This reflects an overall decline in the market value per acre. As of June 30, 2020, the total market value of the NCREIF Timberland Property Index was \$23.4 billion, representing 13.2 million acres of timberland. During the period the NCREIF Timberland Property Index rose marginally, returning 0.34%. The income component of return continued to drive performance, as price appreciation detracted. The largest regional component of the index remains the South by a significant margin. The South region boasts 8.5 million acres valued at \$15.4 billion. From a performance perspective, the South and the Lake States contributed positively, while the Northwest and Northeast both detracted from index returns.

Infrastructure

By definition, infrastructure assets are essential to the economic health and productivity of civilized society. They include the basic facilities, services, and installations needed for the functioning of a community, such as transit and communications systems; both potable and sewage water lines; and electricity access. They also include such public entities as schools, post offices, and airports. Most of these facilities have traditionally been owned and regulated by municipalities and states. The private sector's participation has been limited, to varying degrees, to the areas of design, construction, and operation. Budget and fiscal pressures can limit the ability of public authorities to maintain existing infrastructure, much less to build new facilities required by a growing population. In response to these problems, many municipalities and states have sold or are contemplating the sale of their infrastructure assets to private investors.

Private infrastructure is challenging to appropriately benchmark given the concentrated nature of the assets and its only recent emergence as an institutional asset class. NDSIB uses a custom benchmark to measure performance. However, the FTSE Global Core 50/50 Infrastructure Index is a market capitalization weighted index that represents publicly traded companies that operate and own infrastructure assets on a global basis. The FTSE Global Core 50/50 Infrastructure Index returned -8.02% over the 12-month period ended June 30, 2020.

Summar

Investment results were highly volatile and mixed in fiscal 2020 with exceptional returns in U.S. large cap growth equities and long-term U.S. treasuries (up 22% to 25%), strong returns in U.S. core fixed income (up 8% to 9%), muted results within private real assets (up 3% to 5%) and disappointing returns for U.S. small cap and international equities (down 0% to 8%). With respect to relative performance, the PERS plan outperformed its respective policy benchmark for the year, while the and Job Service Pension Plan and the Retiree Health Insurance Credit Fund underperformed. Performance was negatively impacted by international, small cap and value tilts within public equities, whereas our U.S. core fixed income and real asset exposures generally enhanced total fund performance.

Although this past year's investment performance did not meet our expectations, the North Dakota State Investment Board and staff take a long-term perspective in its asset allocation and investment decisions, and performance evaluation. Over the past five years ending June 30, 2020, the PERS Plan, Job Service Pension Plan and Retiree Health Insurance Credit Fund returned 6.20%, 4.77%, and 6.18%, respectively, over the past ten years, they returned 8.38%, 7.10% and 8.59%, respectively. The PERS Plan outperformed its respective policy benchmarks over the last 5 and 10 year periods largely due to relatively strong returns in U.S. equities (up 8% to 14%) and U.S. fixed income (up 5% to 6%).

Page 4 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 the strong recovery in the capital markets following the sharp market sell-off triggered by the global pandemic and continuing uncertainty with the development of an effective COVID-19 vaccine. 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 DAVID HUNTER Deputy Chief Investment Officer 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:

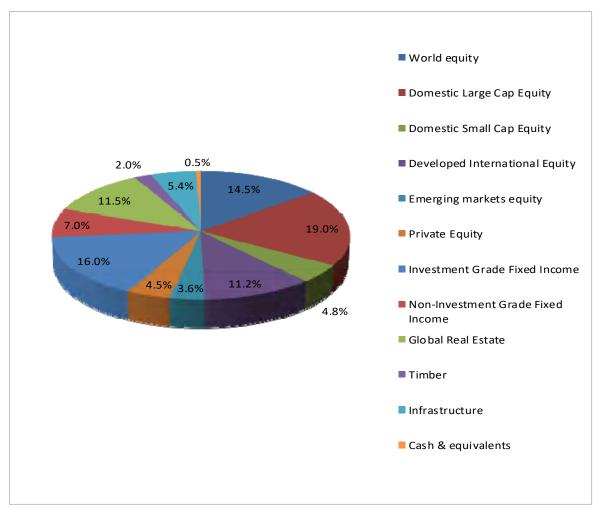
- To maintain a level of surplus sufficient to eliminate the need for future contributions.
- To achieve a rate of return which exceeds the rate of inflation, as measured by the Consumer Price Index, by 3.0 percentage points per year (based on current actuarial assumptions of 4.75% return and 2-3% inflation), 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.

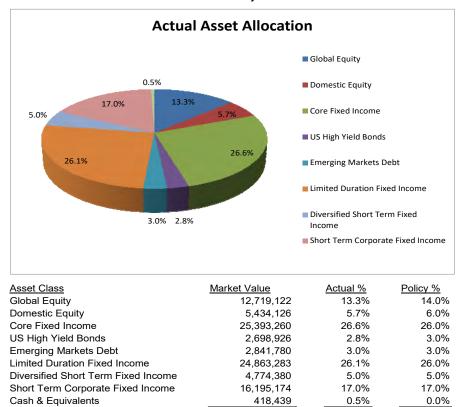
The SIB is responsible for carrying out the Retirement Board's investment goals, objectives and policies; implementing the asset allocation plan submitted by the System, maintaining a separate accounting and preparing periodic investment performance reports for the System funds under their authority. 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, 2020



Asset Class	Market Value		Actual %	Policy %
World equity	\$	464,396,982	14.5%	16.0%
Domestic Large Cap Equity		607,998,314	19.0%	15.8%
Domestic Small Cap Equity		153,486,015	4.8%	4.8%
Developed International Equity		358,034,754	11.2%	11.0%
Emerging markets equity		116,165,871	3.6%	3.4%
Private Equity		145,517,089	4.5%	7.0%
Investment Grade Fixed Income		511,226,041	16.0%	16.0%
Non-Investment Grade Fixed Income		223,918,163	7.0%	7.0%
Global Real Estate		366,660,117	11.5%	11.0%
Timber		63,277,045	2.0%	2.0%
Infrastructure		172,499,386	5.4%	6.0%
Cash & equivalents		18,725,421	0.5%	0.0%
Total	\$ 3	3,201,905,198	100.0%	100.0%

Job Service Retirement Plan Asset Allocation - June 30, 2020

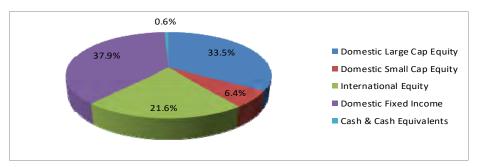


Retiree Health Insurance Credit Program Asset Allocation - June 30, 2020

95,338,490

100.0%

100.0%

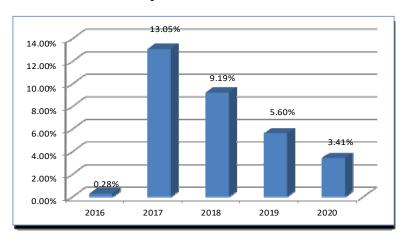


Asset Class	Ma	rket Value	Actual %	Policy %
Domestic Large Cap Equity	\$	48,366,436	33.5%	33.0%
Domestic Small Cap Equity		9,222,529	6.4%	6.0%
International Equity		31,179,507	21.6%	21.0%
Domestic Fixed Income		54,676,415	37.9%	40.0%
Cash & Cash Equivalents		792,183	0.6%	0.0%
Total	\$	144,237,070	100.0%	100.0%

Total

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⁽¹⁾

For the Five Years Ended June 30, 2020

						Annua	alized
	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	2020	3 Year	5 Year
Total Fund (PERS)	0.28%	13.05%	9.19%	5.60%	3.41%	6.01%	6.20%
Actual Total Fund Policy Benchmark	0.64%	1.50%	3.09%	6.02%	3.21%	5.79%	5.90%
Global Equity	-7.27%	20.57%	10.52%	3.04%	-7.14%	1.88%	3.41%
MSCI World	-2.78%	18.20%	11.09%	6.33%	2.84%	6.70%	6.90%
Large Cap Domestic Equities	4.52%	16.20%	15.99%	10.13%	12.98%	13.01%	11.88%
Russell 1000	2.93%	18.03%	14.54%	10.02%	7.48%	10.64%	10.47%
Small Cap Domestic Equities	-7.04%	20.08%	17.69%	3.00%	-4.48%	5.01%	5.27%
Russell 2000	-6.73%	24.60%	17.57%	-3.31%	-6.63%	2.01%	4.29%
Developed International Equities	-7.92%	21.05%	10.30%	-0.88%	-0.57%	2.82%	3.91%
Benchmark ⁽²⁾	-10.16%	20.27%	7.04%	1.29%	-5.42%	0.84%	1.94%
Emerging Markets Equities	-9.26%	21.55%	9.46%	0.42%	1.44%	3.70%	4.23%
MSCI Emerging Markets Net	-12.05%	23.75%	8.20%	1.22%	-3.39%	1.90%	2.86%
Private Equity ⁽³⁾	-7.20%	11.12%	5.27%	8.62%	3.05%	5.62%	3.97%
Investment Grade Fixed Income	5.00%	3.65%	1.60%	8.13%	9.68%	6.41%	5.57%
Bloomberg Aggregate	6.00%	-0.32%	-0.40%	7.87%	8.74%	5.32%	4.30%
Below Investment Grade Fixed Income	0.28%	12.86%	5.25%	6.93%	1.10%	4.40%	5.19%
Bloomberg High Yield Corp 2% Issuer Cap	1.65%	12.69%	2.62%	7.48%	0.00%	3.32%	4.79%
Global Real Estate	11.34%	9.13%	7.70%	6.02%	2.20%	5.28%	7.23%
NCREIF Total	10.64%	6.97%	7.19%	6.51%	2.69%	5.44%	6.77%
Timber	4.34%	-9.44%	-2.52%	4.10%	6.28%	2.55%	0.38%
NCREIF Timber	3.39%	3.35%	3.57%	2.95%	0.34%	2.28%	2.71%
Infrastructure	2.88%	9.21%	7.37%	5.12%	4.47%	5.64%	5.79%
Benchmark	0.64%	1.50%	3.09%	3.91%	1.62%	2.87%	2.15%
Cash	0.29%	0.74%	1.47%	2.31%	1.50%	1.76%	1.26%
90 Day T-bills	0.19%	0.49%	1.36%	2.31%	1.63%	1.77%	1.19%

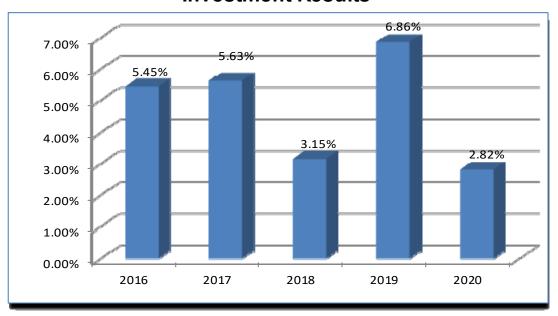
⁽¹⁾The investment return calculations were prepared using a monthly time-weighted rate of return methodology based upon market values

⁽²⁾MSCI EAFE through 6/30/16 and MSCI World ex-US thereafter.

⁽³⁾ 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



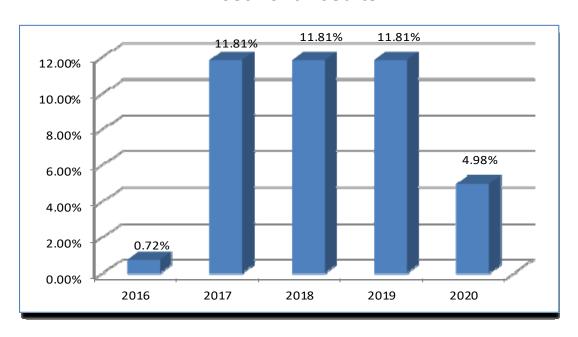
Job Service Retirement Plan Schedule of Investment Results⁽¹⁾⁽²⁾ For the Five Years Ended June 30, 2020

						Annua	alized
	<u>2016</u>	2017	<u>2018</u>	<u>2019</u>	2020	3 Year	5 Year
Total Fund	5.45%	5.63%	3.15%	6.86%	2.82%	4.26%	4.77%
Actual Fund Policy Benchmark	0.64%	1.50%	3.09%	6.74%	5.04%	5.31%	5.18%
Global Equity	6.41%	10.58%	8.38%	8.90%	-6.00%	3.52%	5.48%
Weighted Benchmark - Global Equity	-0.94%	18.86%	13.51%	8.05%	3.94%	8.43%	8.46%
Global Fixed Income	4.87%	2.19%	0.92%	5.37%	4.75%	3.66%	3.60%
Weighted Benchmark - Global Fixed Income	3.53%	0.98%	0.30%	3.75%	2.94%	2.32%	2.29%
Cash	0.29%	0.75%	1.44%	2.27%	1.46%	1.72%	1.24%
90 Day T-bills	0.19%	0.49%	1.36%	2.31%	1.63%	1.77%	1.19%

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

 $^{^{(2)}}$ 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⁽¹⁾ For the Five Years Ended June 30, 2020

						Annua	alized
	<u>2016</u>	2017	2018	2019	2020	3 Year	<u>5 Year</u>
Total Fund	0.72%	11.81%	11.81%	11.81%	4.98%	6.21%	6.18%
Large Cap Domestic Equity	2.49%	17.50%	17.50%	17.50%	7.07%	10.22%	10.03%
Russell 1000	2.93%	18.03%	18.03%	18.03%	7.48%	10.64%	10.47%
Small Cap Domestic Equity	-5.67%	17.72%	17.72%	17.72%	-9.65%	0.35%	2.33%
Russell 2000	-6.73%	24.60%	24.60%	24.60%	-6.63%	2.01%	4.29%
International Equity	-11.04%	21.47%	21.47%	21.47%	-1.91%	2.20%	2.90%
MSCIEAFE	-10.16%	20.27%	20.27%	20.27%	-4.11%	1.17%	2.27%
Core Plus Fixed Income	4.90%	2.42%	2.42%	2.42%	7.27%	5.09%	4.51%
Barclays Aggregate	6.00%	-0.32%	-0.32%	-0.32%	8.74%	5.32%	4.30%

⁽¹⁾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, 2020

Stocks	Fair Value
Microsoft Corporation	\$ 46,150,225
Amazon Company Incorporated	39,403,850
Apple Incorporated	35,716,444
Facebook Incorporated (Class A)	16,721,252
Amgen Incorporated	14,308,447
Alphabet Incorporated (Class C)	14,217,982
Merck & Company Incorporated	13,667,403
Visa Incorporated (Class A)	12,092,815
Broadcom Incorporated	10,399,033
Walmart Incorporated	10,339,282
Bonds	
FNMA Single Family Mortgages 3% 30 Years Settles September	\$ 12,782,091
FNMA Pool 2% Due 07-01-2035	12,343,063
FHLMC 1.5% Due 07-01-2035	9,837,852
FNMA Single Family Mortgages 2.5% 30 Years Settles September	9,282,862
US Treasury Notes 1.875% Due 08-31-2024	7,985,112
US Treasury Bonds 2.5% Due 05-15-2046	7,644,456
GNMA II Jumbos 4.5% 30 Years Settles July	7,296,084

A complete list of all holdings is available upon request

FNMA Single Family Mortgages 2% 30 Years Settles September

US Treasurey Security Stripped Interest Payment 05-15-2041

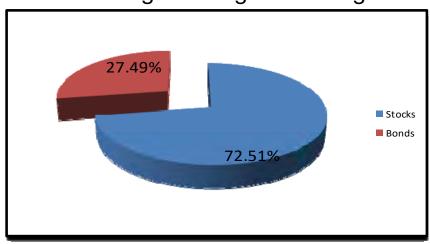
US Treasury Bonds 2.25% Due 08-15-2027

Percentage of Largest Holdings

6,749,583

3,663,982

3,155,026



Public Employees and Highway Patrolmen's Retirement System Schedule of Investment Fees For the Fiscal Year Ended June 30, 2020

	Assets Under	
Investment Manager's Fees:	<u>Management</u>	<u>Fees</u>
Global Equity	\$464 Million	\$ 1,725,269
Domestic Large Cap Equity	\$608 Million	866,175
Domestic Small Cap Equity	\$153 Million	749,559
Developed International Equity	\$358 Million	1,010,346
Emerging Markets Equity	\$116 Million	1,209,758
Private Equity	\$146 Million	2,801,672
Investment Grade Fixed Income	\$511 Million	1,322,086
Below Investment Grade Fixed Income	\$224 Million	2,773,765
Global Real Estate	\$367 Million	2,777,426
Timber	\$64 Million	401,374
Infrastructure	\$172 Million	2,254,747
Cash & Equivalents	\$19 Million	 11,291
Total Investment Managers' Fees		\$ 17,903,468
Other Investment Service Fees:		
Custodian Fees	\$3.20 Billion	\$ 281,417
Investment Consultant Fees	\$3.20 Billion	130,304
SIB Administrative Fees	\$3.20 Billion	469,933
Total Investment Service Fees		\$ 881,654

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, 2020

	Asset	s Under	
	<u>Mana</u>	gement	Fees
Investment Management Fees	\$95	Million	\$ 430,832
Custodian Fees	\$95	Million	10,606
SIB Contract Fees	\$95	Million	 12,654
Total Investment Expense			\$ 454,092

Retiree Health Insurance Credit Plan Schedule of Investment Fees For the Fiscal Year Ended June 30, 2020

Other Investment Service Fees:		s Under gement	<u>Fees</u>
Investment Management Fees	\$144	Million	\$ 591,530
Custodian Fees	\$144	Million	8,209
SIB Contract Fees	\$144	Million	17,020
Total Investment Service Fees			\$ 616,759

Defined Contribution Investments

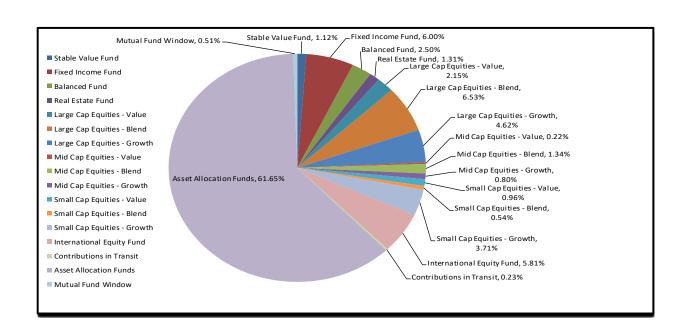
The Defined Contribution Retirement Plan (Plan) is a long-term retirement savings vehicle and is intended as a source of retirement income for eligible participants. Each participating member shall direct the investment of the individual's accumulated employer and employee contributions and earnings 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, 2020

Investment Options	Ма	arket Value	Percent
Stable Value Fund	\$	320,611	2.06%
Fixed Income Fund		801,216	5.18%
Balanced Fund		391,398	2.53%
Real Estate Fund		229,777	1.48%
Large Cap Equities - Value		337,359	2.18%
Large Cap Equities - Blend		1,115,325	7.20%
Large Cap Equities - Growth		894,476	5.78%
Mid Cap Equities - Value		31,258	0.20%
Mid Cap Equities - Blend		149,465	0.97%
Mid Cap Equities - Growth		84,514	0.55%
Small Cap Equities - Value		98,778	0.64%
Small Cap Equities - Blend		87,980	0.57%
Small Cap Equities - Growth		718,569	4.64%
International Equity Fund		757,111	4.89%
Asset Allocation Funds		9,372,705	60.53%
Mutual Fund Window		94,299	0.61%
Contributions in Transit		-	0.00%
Total	\$	15,484,841	100.00%

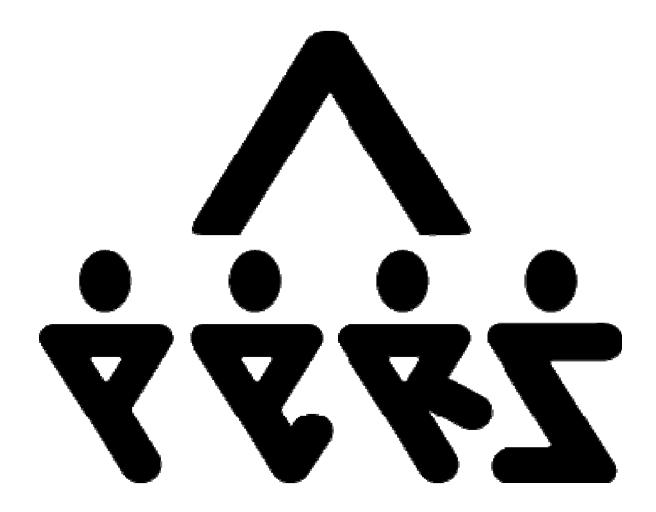


Defined Contribution Retirement Plan - Schedule of Investment Results For the Five Years Ended June 30, 2020

	2016	2017	2018	2019	2020	3-Year Annualized	5-Year Annualized
Stable Value Fund/Money Market Fund:				· <u></u>	<u> </u>		· <u> </u>
Vanguard Prime Money Market (2)	0.13%	0.29%	1.26%	2.21%	1.40%	1.62%	1.08%
Wells Fargo Stable Fund (2)	0.89%	0.52%	1.24%	1.54%	1.66%	1.48%	1.27%
3 Month T-Bill Index (2)	0.41%	0.30%	1.33%	2.30%	1.56%	1.72%	1.15%
Fixed Income Fund:							
Mass Mutual Income Bond Fund	N/A	N/A	N/A	4.26%	7.19%	4.52%	3.51%
Baird Core Plus Bond Fund - BCOSX	4.05%	3.33%	3.33%	7.37%	8.53%	5.31%	4.60%
Vanguard Total Bond Market Index	N/A	-0.44%	-0.53%	7.85%	8.96%	5.34%	4.31%
US Aggregate Bond Index	6.00%	2.27%	-0.40%	7.97%	8.92%	5.40%	4.37%
Taxable Bond Fund Universe (2)	0.30%	3.68%	-0.68%	9.33%	7.98%	5.39%	5.05%
Prudential High Yield Z (2)	2.42%	5.33%	3.01%	8.71%	-0.59%	3.64%	5.11%
BofA High Yield Bond Fund Index (2)	1.71%	4.91%	2.53%	7.58%	-1.10%	2.94%	4.58%
High Yield Bond Universe (2)	2.92%	4.09%	2.23%	6.19%	-1.89%	2.04%	3.38%
Templeton Global Bond Adv (2) World Govt Bond Index	-4.26% 11.26%	3.29% 4.49%	-1.88% 1.90%	5.56% 5.48%	-6.08% 4.60%	-0.92%	0.56% 3.70%
World Bond Fund Universe (2)	4.77%	4.49%	0.64%	5.02%	1.60%	3.98% 2.25%	2.56%
()	4.7770	4.4270	0.04%	3.02%	1.00%	2.2370	2.30%
Real Estate Fund:	04.040/	4.000/	4.000/	4.4.530/	4.040/	4.400/	0.750/
Cohen & Steers Realty Shares (2)	21.31%	4.03%	4.36%	14.57%	-4.61%	4.48%	6.75%
FTSE NAREIT All Equity REITs Index (2)	24.04%	2.70%	3.50%	13.01%	-6.47%	3.51%	6.56%
Real Estate Fund Universe (2)	19.50%	2.89%	3.39%	10.45%	-9.81%	0.60%	3.98%
Balanced Fund:	6 620/	0.000/	9.060/	14 060/	E 070/	0.570/	0.440/
T Rowe Price Capital Appreciation (2) 60% Large Cap Value Univ & 40% Taxable Bond Universe (2)	6.63% 0.07%	8.98% 4.80%	8.06% 5.15%	14.86% 7.21%	5.97% -1.36%	9.57% 3.49%	9.44% 4.70%
60% Russell 1000 Value & 40% Agg Bond Index (2)	4.14%	3.73%	3.90%	8.26%	-1.74%	3.49%	4.70%
•	4.1470	3.7370	3.90 /0	0.2070	-1.7470	3.2370	4.5570
Large Cap Equities - Value:	2.72%	6 900/	0.920/	0.020/	-0.90%	6.12%	7.68%
Hartford Dividend & Growth (2)	1.28%	6.89% 5.57%	9.82% 9.51%	9.82% 5.50%		0.12%	7.08% 4.15%
T Rowe Price Equity Income (2) Russell 1000 Value Index	2.90%	4.70%	6.77%	8.46%	-11.18% -8.84%	1.82%	4.15%
Large Cap Value Fund Universe (2)	-0.09%	5.55%	9.04%	5.79%	-7.59%	2.22%	4.47%
Large Cap Equities - Blend:							
Vanguard Dividend Growth Fund	9.13%	9.94%	10.57%	19.00%	1.27%	10.04%	10.24%
S&P 500 Index	3.99%	9.34%	14.37%	10.42%	7.51%	10.73%	10.73%
Large Cap Blend Fund Universe (2)	-2.33%	8.65%	12.58%	8.20%	3.74%	8.15%	8.35%
Large Cap Equities - Growth:	2.0070	0.0070	12.0070	0.2070	0.1 170	0.1070	0.0070
Well's Fargo Adv Growth Adm (2)	-4.89%	18.12%	29.03%	14.09%	20.56%	21.07%	15.19%
Russell 3000 Growth Index	1.88%	13.69%	22.47%	10.60%	21.94%	18.21%	15.23%
Franklin Growth Adv (2)	0.37%	13.77%	16.97%	12.86%	12.96%	14.25%	12.78%
Russell 1000 Growth Index	3.00%	14.00%	22.50%	11.60%	23.28%	19.00%	15.89%
Large Cap Growth Fund Universe (2)	-2.33%	14.14%	20.58%	10.02%	17.34%	15.95%	12.84%
Mid Cap Equities - Value:							
Virtus Mid Cap Value Equity I	-0.44%	6.68%	7.70%	6.89%	-11.71%	0.55%	4.35%
Russell Mid Cap Value	3.25%	5.18%	7.60%	3.68%	-11.81%	-0.54%	3.32%
Mid Cap Value Universe (2)	-2.16%	4.58%	8.86%	0.25%	-13.56%	-1.59%	2.10%
Mid Cap Equities - Blend:							
Columbia Mid Cap Index A (2)	0.89%	5.71%	12.95%	0.91%	-7.18%	1.90%	4.72%
S&P Mid Cap 400	1.33%	5.99%	13.50%	1.36%	-6.70%	2.39%	5.22%
Mid Cap Blend Fund Universe (2)	-4.33%	6.23%	11.31%	2.41%	-6.19%	2.41%	3.86%
Mid Cap Equities - Growth:							
Prudential Jennison Mid Cap Growth Z (2)	-6.47%	11.74%	13.16%	14.09%	11.52%	12.92%	9.25%
Russell Mid Cap Growth	-2.14%	11.40%	18.52%	13.94%	11.91%	14.76%	11.60%
Mid Cap Growth Fund Universe (2)	-6.43%	12.37%	18.06%	9.88%	9.65%	12.58%	9.92%

Defined Contribution Retirement Plan - Schedule of Investment Results For the Five Years Ended June 30, 2020

						3-Year	5-Year
	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>Annualized</u>	<u>Annualized</u>
Small Cap Equities - Value:							
Northern Small Cap Value Fund	-5.11%	2.70%	7.14%	-4.35%	-19.57%	-5.45%	0.27%
Russell 2000 Value Index	-2.58%	0.54%	13.10%	-6.24%	-17.48%	-4.35%	1.26%
Small Value Fund Universe (2)	-4.30%	0.52%	12.44%	-8.05%	-17.33%	-5.15%	-0.33%
Small Cap Equities - Blend:							
DFA US Small Cap (3)	-4.05%	1.91%	15.31%	-5.53%	-11.71%	-1.29%	2.33%
Russell 2000 Index (2)	-6.73%	4.99%	17.57%	-3.31%	-6.63%	2.01%	4.29%
Small Blend Fund Universe (2)	-5.78%	3.24%	14.67%	-3.76%	-11.41%	-0.64%	2.49%
Small Cap Equities - Growth:							
Brown Capital Mgmt Small Co Inv (2)	3.25%	17.78%	28.58%	8.33%	16.35%	17.46%	16.04%
Russell 2000 Growth Index	-10.80%	10.00%	21.90%	-0.50%	3.48%	7.86%	6.86%
Small Growth Fund Universe (2)	-9.86%	10.15%	22.70%	3.22%	4.46%	10.08%	8.28%
International Equity Funds							
American Funds New Perspective Fund	-5.73%	6.68%	1.44%	7.02%	10.72%	10.90%	10.14%
Vanguard Total International Stock Index Inv (2)	-9.11%	14.79%	7.10%	0.64%	-4.09%	1.09%	2.42%
MSCIEAFE	-10.24%	13.81%	7.28%	5.74%	-4.80%	1.13%	2.26%
International Stock Fund Universe	-4.17%	14.45%	6.08%	-0.06%	-4.66%	0.30%	1.79%
Oppenheimer Developing Markets Y (2)	-10.13%	18.74%	12.46%	2.96%	-1.87%	4.35%	4.59%
MSCI Emerging Markets Index (2)	-12.00%	18.43%	8.20%	1.21%	-3.39%	1.90%	2.86%
Diversified Emerging Markets Universe (2)	-9.89%	18.14%	6.09%	1.16%	-3.66%	1.15%	2.46%
Asset Allocation Funds:							
TIAA-CREF Lifecycle Ret Income (2)	1.23%	5.98%	5.45%	5.51%	4.53%	5.16%	5.02%
Income Benchmark (1)	2.00%	5.08%	4.53%	6.87%	4.99%	4.61%	4.18%
TIAA-CREF Lifecycle 2010 (2)	0.88%	6.26%	5.77%	5.56%	4.51%	5.28%	5.16%
2010 Benchmark (1)	1.72%	5.34%	4.77%	7.30%	4.45%	5.18%	4.97%
TIAA-CREF Lifecycle 2015 (2)	0.44%	6.86%	6.44%	5.44%	4.45%	5.44%	5.36%
2015 Benchmark (1)	1.43%	5.78%	5.39%	7.51%	4.17%	5.49%	5.38%
TIAA-CREF Lifecycle 2020 (2)	-0.15%	7.52%	7.39%	5.24%	4.35%	5.65%	5.61%
2020 Benchmark (1)	0.91%	6.39%	6.22%	7.68%	3.92%	5.75%	5.73%
TIAA-CREF Lifecycle 2025 (2)	-0.91%	8.33%	8.54%	4.95%	4.11%	5.85%	5.88%
2025 Benchmark (1)	0.36%	7.10%	7.35%	7.83%	3.72%	5.98%	6.03%
TIAA-CREF Lifecycle 2030 (2)	-1.67%	9.14%	9.62%	4.64%	3.86%	6.01%	6.11%
2030 Benchmark (1)	-0.21%	7.82%	8.49%	8.06%	3.36%	6.33%	6.52%
TIAA-CREF Lifecycle 2035 (2)	-2.42%	9.91%	10.79%	4.27%	3.56%	6.16%	6.32%
2035 Benchmark (1)	-0.83%	8.52%	9.64%	8.08%	2.55%	6.61%	6.98%
TIAA-CREF Lifecycle 2040 (2)	-3.29%	10.58%	11.96%	3.81%	3.22%	6.26%	6.47%
2040 Benchmark (1)	-1.45%	9.19%	10.82%	8.14%	2.33%	6.74%	7.17%
TIAA-CREF Lifecycle 2045 (2)	-3.29%	11.00%	12.60%	3.33%	2.98%	6.21%	6.56%
2045 Benchmark (1)	-1.45%	9.53%	11.59%	8.15%	2.33%	6.75%	7.18%
TIAA-CREF Lifecycle 2050 (2)	-3.24%	10.96%	12.82%	3.34%	2.84%	6.24%	6.61%
2050 Benchmark (1)	-1.46%	9.63%	11.74%	8.15%	2.33%	6.75%	7.18%
TIAA-CREF Lifecycle 2055 (2)	-3.28%	11.08%	12.97%	3.25%	2.78%	6.23%	6.65%
2055 Benchmark (1)	-1.46%	9.73%	11.91%	8.15%	2.34%	6.75%	7.18%
TIAA-CREF Lifecycle 2060 (2)	-3.18%	11.28%	13.04%	3.19%	2.84%	6.25%	6.71%
2060 Benchmark (1)	-1.46%	9.73%	12.08%	8.16%	2.35%	6.76%	7.19%



ACTUARIAL SECTION



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December 2, 2020

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, 2020. 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 actuarial valuation report was prepared using actuarial assumptions adopted by the Board as authorized under North Dakota Administrative Code Section 71-02. All actuarial assumptions used in this report are reasonable for the purposes of this actuarial valuation.

The actuarial assumptions used for this valuation were based on an experience review for the period from July 1, 2014 to July 1, 2019. The Board adopted a decrease in the investment return assumption from 7.50 percent to 7.00 percent first effective with the actuarial valuation as of July 1, 2020. Other updates to actuarial assumptions since the July 1, 2019 valuation include changes to mortality tables as well as changes to rates of annual salary increases, separation for active membership, disability, and retirement.

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. We believe that calculating the actuarial contribution rate using a slightly longer period would also be reasonable.

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 Nos. 67 and 68 were used in the preparation of the accounting disclosures and schedules required by GASB Statement Nos. 67 and 68.

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Board Members December 2, 2020 Page 2

Benefit Provisions

The interest rate earned on member contributions will decrease from 7.00 percent to 6.50 percent effective January 1, 2021 (based on the adopted decrease in the investment return assumption). There have been no other changes in plan provisions since the previous actuarial valuation as of July 1, 2019.

New Main System and Public Safety members who are hired on or after January 1, 2020 will have a benefit multiplier of 1.75 percent (compared to the prior benefit multiplier of 2.00 percent). The fixed employer contribution for new members of the Main System will increase from 7.12 percent to 8.26 percent. For members who terminate after December 31, 2019, final average salary is the higher of the final average salary calculated on December 31, 2019 or the average salary earned in the three highest periods of twelve consecutive months employed during the last 180 months of employment.

Participant Data

A total of 24,489 active members (including the Main System, Judges and Public Safety) were included in the actuarial valuation as of July 1, 2020. Between the 2019 and 2020 actuarial valuations, the number of active employees increased by 735 members, or 3.1 percent. The average annual actuarial valuation pay increased by 3.1 percent, from \$46,241 to \$47,685 between the 2019 and 2020 actuarial valuations. There were 6,428 active members who were eligible for retirement (normal, early or Rule of 85, 88 or 90) as of July 1, 2020.

The number of benefit recipients increased from 12,300 to 12,945, or 5.2 percent, since the last actuarial valuation. The average monthly benefit increased by 3.3 percent, from \$1,291 to \$1,333. During the year ending June 30, 2020, there were 1,049 members awarded a benefit.

There were 6,708 inactive members as of July 1, 2020, who were vested and elected to receive a deferred benefit. The average monthly deferred benefit is \$506. There were 7,135 inactive members as of July 1, 2020, 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 3.29 percent (net of investment expenses). On an actuarial value of asset basis, NDPERS assets had an investment return of approximately 7.26 percent, which compares to the prior year assumed rate of return of 7.50 percent.

The actuarial value of assets is currently 103.4 percent of the market value of assets. There are \$106,231,677 in net asset losses currently being deferred that will be phased into the actuarial value of assets over the next four years.



Board Members December 2, 2020 Page 3

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.

Employer Contribution Rates as a % of Projected Annual Compensation for Fiscal Year Ending June 30, 2021

	Statutory Rate	Actuarial Rate
Main System	7.12% ¹	12.94%
Judges	17.52%	8.81%
Public Safety with prior Main System service	9.81%	9.33%
Public Safety without prior Main System service	7.93%	7.72%
Total PERS (Combined)	7.35%	12.72%

¹The statutory contribution for members hired on or after January 1, 2020 is 8.26% of pay.

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 Public Safety Systems, the statutory employer rate amortizes the unfunded liability over a period shorter than 20 years.

Based on the current actuarial valuation and the current actuarial assumptions and methods and benefit provisions for current employees, the total statutory contribution rate of 14.12 percent (15.26 percent for employees hired on or after January 1, 2020) for the Main System is not expected to ever amortize the unfunded liability. The plan changes for employees first enrolled on or after January 1, 2020 are expected to slowly improve the funding of the plan, but only have a marginal impact on the current valuation results. Despite lower liabilities for new members, the Main System funded ratio is projected



Board Members December 2, 2020 Page 4

to decline indefinitely. We recommend an increase to the Main System total statutory contribution rate such that the funded ratio is projected to reach 100 percent within 30 years.

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, 2020. 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, 2020, using the Entry Age Normal actuarial cost method. A single discount rate of 4.64 percent (which is different than the rate that is used in the funding actuarial valuation calculations) 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 7.00 percent and the municipal bond rate of 2.45 percent. All other assumptions and methods used in the funding actuarial valuation for calculation of the actuarial accrued liabilities as of July 1, 2020, were used in the GASB 67/68 actuarial valuation for calculation of the total pension liability for fiscal year ending June 30, 2020.

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, 2020.

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. Bonita J. Wurst and Abra Hill 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.



Board Members December 2, 2020 Page 5

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 was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

This report does not fully reflect the recent and still developing impact of COVID-19, which is likely to influence demographic experience and economic expectations, at least in the short term. We will continue to monitor these developments and their impact.

This actuarial valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

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

Bonita J. Wurst, ASA, EA, MAAA, FCA

Bonita J. Wurst

Senior Consultant

Abra Hill, ASA, MAAA, FCA

Consultant

Stora O. Hill



Actuarial Assumptions and Cost Method – Public Employees Retirement System (Adopted July 1, 2020)

Mortality Tables:

The mortality assumptions are as follows:

		Male Scaling	Female Scaling
Туре	Assumption	Factor	Factor
Post-Retirement	Pub-2010 Healthy Retiree Mortality Table	103%	101%
Non-Disabled	(for General Employees), sex distinct		
Post-Retirement	Pub-2010 Disabled Retiree Mortality Table	117%	112%
Disabled	(for General Employees), sex distinct		
Pre-Retirement	Pub-2010 Employee Mortality Table (for	92%	92%
	General Employees), sex distinct		

Disability Incidence Rates:

Before Age 65:

Males: 15 % of OASDI disability incidence rates Females: 8.5% of OASDI disability incidence rates

Age 65 and Later: .15% per year

Sample rates are as follows:

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	0.0090%	0.0051%
25	0.0128%	0.0073%
30	0.0165%	0.0094%
35	0.0221%	0.0125%
40	0.0330%	0.0187%
45	0.0539%	0.0306%
50	0.0909%	0.0515%
55	0.1513%	0.0858%
60	0.2440%	0.1383%
65	0.1500%	0.1500%

Rates of Separation from Active Membership:

Service Beginning of		Main System			Public Safety		
Year	Age						
	Under 30	30-39	40+	Under 30	30-39	40+	
0	28.00%	20.00%	17.00%	27.00%	19.00%	16.00%	
1	24.00%	17.00%	14.00%	25.00%	19.00%	16.00%	
2	18.00%	14.00%	12.00%	20.00%	16.00%	14.00%	
3	16.00%	13.00%	12.00%	17.00%	14.00%	14.00%	
4	13.00%	11.00%	11.00%	17.00%	10.00%	10.00%	
Age		Age-Based R	ates Only afte	er First Five Yea	rs of Service		
		Main System			Public Safety		
20-24	-	11.00%		-	Public Safety 10.00%		
20-24 25-29				-			
		11.00%			10.00%		
25-29		11.00% 10.00%			10.00% 10.00%		
25-29 30-34		11.00% 10.00% 6.50%			10.00% 10.00% 7.50%		
25-29 30-34 35-39		11.00% 10.00% 6.50% 5.50%			10.00% 10.00% 7.50% 7.50%		
25-29 30-34 35-39 40-44		11.00% 10.00% 6.50% 5.50% 4.50%			10.00% 10.00% 7.50% 7.50% 5.00%		
25-29 30-34 35-39 40-44 45-49		11.00% 10.00% 6.50% 5.50% 4.50% 4.20%			10.00% 10.00% 7.50% 7.50% 5.00%		

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.

Public Safety: 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:

		Main System		Pub	lic Safety		udges
Age	Reduced	Unreduced - Rule of 85	Unreduced - Not Rule of 85	Rule of 85	Not Rule of 85	Rule of 85	Not Rule of 85
50		50%		25%	4%	-	
51		20%		25%	4%		
52		20%		25%	4%		
53		20%		25%	4%		
54		20%		25%	4%		
55	1%	8%		25%	10%	10%	2%
56	1%	8%		25%	10%	10%	2%
57	1%	8%		25%	10%	10%	2%
58	1%	9%		25%	10%	10%	2%
59	2%	9%		25%	10%	10%	2%
60	2%	9%		25%	10%	10%	2%
61	4%	15%		25%	10%	10%	2%
62	8%	20%		50%	25%	10%	2%
63	8%	20%		50%	25%	10%	2%
64	8%	20%		50%	25%	10%	2%
65		35%	20%	50%	50%	100%	10%
66		35%	20%	50%	50%	100%	10%
67		20%	15%	50%	50%	100%	10%
68		20%	15%	50%	50%	100%	10%
69		20%	15%	50%	50%	100%	10%
70		20%	15%	100%	50%	100%	20%
71		20%	15%	100%	50%	100%	20%
72		20%	15%	100%	50%	100%	20%
73		20%	15%	100%	50%	100%	20%
74		20%	15%	100%	50%	100%	20%
75		50%	50%	100%	100%	100%	100%
76		50%	50%				
77		50%	50%				
78		50%	50%				
79		50%	50%				
80+		100%	100%				

Investment Rate of Return:

7.00% per annum, net of investment expenses

Annual Administrative Expenses:

Prior year expenses, adjusted for inflation

Assumed expenses for 2020 are as follows:

Main System:\$ 2,516,644Judges:\$ 11,671Public Safety With Prior Main Service:\$ 53,012Public Safety Without Prior Main Service:\$ 13,260

Salary Scale:

Service At	Main :	System		
Beginning	State	Non-State		
of Year	Employee	Employee	Public Safety	Judges
0	10.75%	13.25%	17.75%	
1	7.50%	8.00%	15.00%	
2	5.75%	7.25%	12.75%	
3			7.25%	
4			7.25%	
Age*				
Under 30	5.75%	7.25%	6.75%	3.00%
30-34	5.75%	6.75%	6.75%	3.00%
35-39	5.75%	6.75%	6.25%	3.00%
40-44	5.25%	6.25%	6.25%	3.00%
45-49	5.25%	6.25%	5.25%	3.00%
50-54	4.75%	5.75%	5.25%	3.00%
55-59	4.50%	5.50%	5.25%	3.00%
60-64	4.00%	4.75%	5.25%	3.00%
65-69	4.00%	4.75%	4.50%	3.00%
70+	3.50%	4.50%	4.25%	3.00%

^{*}Age-based salary increase rates apply for employees with three or more years of service in the Main System, five or more years of service in the Public Safety Systems and for all employees in the Judges System.

Inflation:

2.25% per annum

Payroll Growth:

Main System and Public Safety: 3.5% per annum

Judges: 3.00% per annum

Marital Status:

It is assumed that 75% of participants in the Main System and Public Safety 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.

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: 2.25% per annum

Wage Base Increases: 3.00% 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 Public Safety.

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

Benefit Election:

Main System and Public Safety:

- 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, 2020 actuarial valuation:

- The investment return assumption was lowered from 7.5 to 7.0 percent for the July 1, 2020 valuation
- The assumed rate of price inflation was lowered from 2.5 to 2.25 percent for the July 1, 2020 valuation
- The assumed rate of total payroll growth was updated for the July 1, 2020 valuation
- Mortality table updates were made for the July 1, 2020 valuation

All other actuarial assumptions used in the July 1, 2020 are the same as the last actuarial valuation as of July 1, 2019.

Summary of Plan Provisions - Public Employees Retirement System

This section summarizes the major benefit provisions of the North Dakota 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 (1.75% for members hired on or after January 1, 2020), 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 of service and 1.25% for service in excess of twenty years for the Judges Plan.

Public Safety:

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 (1.75% for members

hired on or after January 1, 2020).

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.

Public Safety:

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 Public Safety:

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.

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.

Public Safety:

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 Public Safety:

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

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:

 Time Period
 Per Annum Interest Rate

 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 Public Safety:

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 Public Safety)
- 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.

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. For members who terminate after December 31, 2019, final average salary is the higher of the final average salary calculated on December 31, 2019 or the average salary earned in the three highest periods of twelve consecutive months employed during the last 180 months of employment.

10. Contributions:

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

	Rates Set	t by Statute	Rates Determined by the Board of Retirement
	Member	Employer	Employer
Main System Permanent Employees*	7.00%	7.12%	
Main System Temporary Employees**	14.12%	0.00%	
Judges	8.00%	17.52%	
Public Safety with			
prior Main System service	5.50%		9.81%
BCI Employees	6.00%		9.81%
National Guard members	5.50%		9.81%
Public Safety without	5.50%		7.93%
prior Main System service	3.30%		1.95%

^{*} The statutory employer contribution for members hired on or after January 1, 2020 increases to 8.26% of pay.

^{**} The statutory member contribution for temporary employees hired on or after January 1, 2020 increases to 15.26% of pay.

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:

The interest rate earned on member contributions will decrease from 7.00% to 6.50% effective January 1, 2021 (based on the adopted decrease in the investment return assumption). There have been no other changes in plan provisions since the previous actuarial valuation as of July 1, 2019.

Solvency Test - PERS 2011 – 2020

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		(1) Active	(2) Retirees,	(3) Active Members	Actuarial	Portion (%) o	f Actuarial Accr	ued Liability
Date	Total Actuarial	Member	Beneficiaries	(Employer	Value of	A control and	By Assets	
7/1	Accrued Liability	Contributions*	and Inactive Members	Financed Portion)	Assets	(1)	(2)	(3)
2011	\$2,339.8	\$588.3	\$908.3	\$843.2	\$1,650.5	100%	100%	18%
2012	2,501.3	626.2	1,070.7	804.4	1,627.4	100%	94%	0%
2013	2,716.5	687.9	1,126.0	902.6	1,683.0	100%	88%	0%
2014	2,938.8	746.5	1,255.4	936.9	1,895.8	100%	92%	0%
2015	3,052.4	788.3	1,437.0	827.1	2,094.3	100%	91%	0%
2016	3,396.6	879.3	1,559.5	957.8	2,265.3	100%	89%	0%
2017	3,726.8	943.0	1,751.0	1,032.8	2,633.2	100%	97%	0%
2018	3,959.1	1,027.6	1,917.4	1,014.0	2,868.8	100%	96%	0%
2019	4,269.3	1,068.4	2,163.0	1,037.9	3,081.9	100%	93%	0%
2020	4,717.4	1,138.6	2,404.6	1,174.2	3,260.6	100%	88%	0%

^{*}Includes vested employer contributions for members who have the Portability Enhancement Provision (PEP).

Schedule of Funding Progress

(Amounts in Millions)

	Actuarial Accrued	Valuation	Unfunded Actuarial	Ratio of Assets	Active Member	UAAL as Percent of
July 1	<u>Liability</u>	Assets	Accrued Liabilities	to AAL	Payroll	Active Member Payroll
2011	2,339.8	1,650.50	689.4	70.5%	769.7	89.6%
2012	2,501.3	1,627.40	873.9	65.1%	804.2	108.7%
2013	2,716.5	1,683.00	1,033.5	62.0%	800.9	129.1%
2014	2,938.8	1,895.80	1,042.9	64.5%	888.5	117.4%
2015	3,052.4	2,094.30	958.2	68.6%	973.5	98.4%
2016	3,396.6	2,265.30	1,131.3	66.7%	1048.5	107.9%
2017	3,726.8	2,633.20	1,093.6	70.7%	1,063.40	102.8%
2018	3,959.1	2,868.80	1,090.3	72.5%	1,076.00	101.3%
2019	4,269.3	3,081.90	1,187.5	72.2%	1,098.40	108.1%
2020	4.717.4	3.260.60	1.456.8	69.1%	1.167.80	124.8%

Schedule of Active Member Valuation Data - PERS - 2011-2020

	Main System						
Valuation Date 7/1	Number	Annual Payroll (\$ in Millions)	Average Annual Pay ¹	% Increase in Avg Pay			
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	8.49			
2014	21,814	946.2	43,376	9.39			
2015	22,381	993.6	43,395	0.09			
2016	22,762	1,007.8	44,274	2.09			
2017	22,574	1,020.8	45,222	2.19			
2018	22,711	1,027.3	45,234	0.09			
2019	22,826	1,040.2	45,570	0.79			
2020	23,487	1,103.1	46,967	3.19			
		Ju	dges				
Valuation Date 7/1	Number	Annual Payroll (\$ in Millions)	Average Annual Pay ¹	% Increase in Avg Pay			
2011	49	\$6.2	\$126,474	4,6%			
2012	49	6.1	124,645	(1.4)%			
2013	49	6.6	134,673	8.09			
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	2.89			
2018	55	8.0	145,615	(0.0)%			
2019	56	8.2	145,791	0.19			
2020	57	8.4	148,047	1.5%			

¹ Prior to the actuarial valuation as of July 1, 2016, annual payroll is 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 actuarial valuation date.

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

	Public Safety with Prior Main System Service						
Valuation Date 7/1	Number	Annual Payroll (\$ in Millions)	Average Annual Pay ¹	% Increase in Avg Pay			
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%			
2018	598	34.5	57,728	(0.1)%			
2019	732	43.0	58,731	1.7%			
2020	745	45.4	60,918	3.7%			

	P	ublic Safety without P	rior Main System Servi	ce
Valuation Date 7/1	Number	Annual Payroll (\$ in Millions)	Average Annual Pay ¹	% Increase in Avg Pay
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%
2018	119	6.1	51,352	1.9%
2019	140	7.1	50,646	(1.4)%
2020	200	10.8	54,124	6.9%

¹Prior to the actuarial valuation as of July 1, 2016, annual payroll is 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 actuarial valuation date.

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

Analysis of Financial Experience - PERS

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

Main System

Plan Year Ended	June 30, 2017	June 30, 2018	June 30, 2019	June 30, 2020
Employer Cost Rate - Beginning of Year	10.48%	11.20%	11.20%	12.22%
Death after Retirement	(0.15)	(0.05)	(0.03)	0.00
Withdrawal from Employment	0.01	0.05	(0.04)	0.03
Age and Service Requirements	0.03	0.00	0.00	0.00
Financial Experience-Investments	(0.14)	(0.24)	(0.16)	(0.42)
Salary Scale and Service	0.12	(0.26)	(0.41)	(0.20)
Contribution Income	0.25	0.08	0.34	0.36
Administrative Expenses	0.00	(0.02)	0.00	0.01
New and Reinstated Members	0.81	0.04	0.10	0.12
Demographic Changes	0.14	0.42	0.10	0.11
Assumption Changes	(0.20)	0.00	1.09	0.71
Death and Retirement from Withdrawals	(0.15)	0.03	0.03	0.00
Employer Cost Rate - End of Year	11.20%	11.25%	12.22%	12.94%

Judges

<u>Plan Year Ended</u>	June 30, 2017	June 30, 2018	June 30, 2019	June 30, 2020
Employer Cost Rate - Beginning of Year	8.90%	4.81%	2.03%	2.83%
Plan Change	0.00	0.00	0.00	0.00
Plan Experience	(1.25)	(1.19)	0.66	0.77
Investment Loss/(Gain)	(0.33)	(0.65)	(0.45)	0.10
Contribution Loss/(Gain)	(0.52)	(0.94)	(1.15)	(1.16)
Assumption Changes	(1.99)	0.00	1.74	6.27
Employer Cost Rate - End of Year	4.81%	2.03%	2.83%	8.81%

Law Enforcement With Prior Main Service*

<u>Plan Year Ended</u>	June 30, 2017	June 30, 2018	June 30, 2019	June 30, 2020
Employer Cost Rate - Beginning of Year	8.08%	8.25%	7.64%	8.00%
Plan Change	0.00	0.00	0.00	0.00
Plan Experience	0.40	(0.32)	(0.35)	(0.16)
Investment Loss/(Gain)	(0.12)	(0.15)	(0.06)	0.01
Contribution Loss/(Gain)	0.12	(0.14)	(0.13)	(0.13)
Assumption Changes	(0.23)	0.00	0.90	1.61
Employer Cost Rate - End of Year	8.25%	7.64%	8.00%	9.33%

Law Enforcement Without Prior Main Service

Plan Year Ended	June 30, 2017	June 30, 2018	June 30, 2020	June 30, 2020
Employer Cost Rate - Beginning of Year	6.44%	6.77%	6.20%	6.37%
Plan Change	0.00	0.00	0.00	0.00
Plan Experience	0.64	(0.53)	(0.22)	0.44
Investment Loss/(Gain)	(0.11)	(0.07)	(0.05)	(0.01)
Contribution Loss/(Gain)	(0.01)	0.03	(0.33)	(0.40)
Assumption Changes	(0.19)	0.00	0.77	1.32
Employer Cost Rate - End of Year	6.77%	6.20%	6.37%	7.72%

Retirees and Beneficiaries Added to and Removed from the Rolls PERS - 2011-2020

Main System

Plan	Beg.	of Year		Ad	ded to Rol	s	Remov	ed fr	om F	Rolls	End of	Year B	lala	ince	Annual	% Increase in Annual
Year	No.	Ann. Be	nefits*	No.	Ann. Ben	efits*	No.	Ann.	Ben	efits*	No.**	Ann.	Ber	nefits*	Benefit	Benefit
							Retiren	ent				1.1111				
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%
2018	10,957		152.8	953		19.7	(372)			(3.6)	11,538			169.0	14,645	10.6%
2019	11,538		169.0	913		18.8	(334)			(3.0)	12,117			184.9	15,257	9.4%
2020	12,117		184.9	1,032		20.5	(401)			(4.3)	12,748			201.1	15,772	8.8%

^{* \$} in millions

Judges

Plan	Beg.	of Y	ear	Add	led to	Rolls	Remov	ed from Rolls	End of	Yea	r Balance	Annual	% Increase in Annual
Year	No.	Ar	n. Benefits	No.	Ann	. Benefits	No.	Ann. Benefits	No.	Ar	n. Benefits	Benefit	Benefit
							Retirem	ent					
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%
2018	50		2,639,954	7		331,377	(2)	(68,572)	55		2,902,760	52,777	10.0%
2019	55		2,902,760	3		241,678	0	0	58		3,144,438	54,214	8.3%
2020	58		3,144,438	3		293,611	(1)	(94,084)	60		3,343,965	55,733	6.3%

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

Totals may not add due to rounding

^{**} Excludes 24 pensioners as of June 30, 2014, 28 pensioners as of June 30, 2015, 35 pensioners as of June 30, 2016, 41 pensioners as of June 30, 2017, 37 pensioners as of June 30, 2018, 37 pensioners as of June 30, 2019, and 42 pensioners as of June 30, 2020 in suspended status.

Public Safety with prior Main System Service

Plan	Beg	of Year		Add	led to	Rolls	Remov	ed from Rolls	s	End of	Year	Balance		verage Annual	% Increase in Annual
Year	No.	Ann. Be	nefits	No.	Ann	Benefits	No.	Ann. Benefit	ts	No.	Ann	. Benefits	B	Benefit	Benefit
							Retirem	nent							
2011	32	\$ 54	10,916	9	\$	217,899	0	\$	0	41	\$	758,815	\$	18,508	40.3%
2012	41	75	58,815	6		105,606	0		0	47		864,421		18,392	13.9%
2013	47	86	54,421	9		225,057	0	(13,77	(6)	56		1,075,702		19,209	24.4%
2014	56	1,07	75,702	7		83,168	(1)	(57,25	(3)	62		1,101,617		17,768	2.4%
2015	62	1,10	01,617	11		301,041	0		0	73		1,402,658		19,215	27.3%
2016	73	1,40	02,658	7		53,522	(1)	(10,52	(9)	79	- 13	1,445,651		18,299	3.1%
2017	79	1,44	45,651	11		390,805	0		0	90		1,836,456		20,405	27.0%
2018	90	1,83	36,456	15		371,954	(2)	(22,51	.0)	103		2,185,900		21,222	19.0%
2019	103	2,18	35,900	15		309,766	(3)	(87,47	1)	115		2,408,195		20,941	10.2%
2020	115	2,40	08,195	12		223,956	(2)	(38,95	5)	125		2,593,195		20,746	7.7%

Public Safety without prior Main System Service

Plan	Beg	of Year	Add	led to Rolls	Remov	ved from Rolls	s	End of	Year Balance	Average Annual	% Increase in Annual
Year	No.	Ann. Benefits	No.	Ann. Benefits	No.	Ann. Benefit	ts	No.	Ann. Benefits	Benefit	Benefit
					Retiren	nent					
2011	0	\$ 0	0	\$ 0	0	\$	0	0	\$ 0	\$ 0	NA
2012	0	0	0	0	0	10	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	1.0	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%
2018	6	70,665	2	19,573	0	1	0	8	90,238	11,280	27.7%
2019	8	90,238	2	10,405	0		0	10	100,643	10,064	11.5%
2020	10	100,643	2	24,715	0		0	12	125,358	10,447	24.6%

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

Totals may not add due to rounding.



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December 2, 2020

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, 2020. 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 actuarial valuation report was prepared using actuarial assumptions adopted by the Board as authorized under North Dakota Administrative Code Section 71-05. All actuarial assumptions used in this report are reasonable for the purposes of this actuarial valuation.

Actuarial assumptions used in the actuarial valuation as of July 1, 2020 were based on an experience review for the five-year period ending July 1, 2019. The actuarial assumptions were first adopted for use commencing with this actuarial valuation.

Please refer to the Experience Review for the Five-year Period July 1, 2014 to July 1, 2019 for detail about the assumption changes in this 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. We believe that calculating the actuarial contribution rate using a slightly longer period would also be reasonable.

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 Nos. 67 and 68 were used in the preparation of the accounting disclosures and schedules required by GASB Statement Nos. 67 and 68.

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Board Members December 2, 2020 Page 2

Benefit Provisions

The interest rate earned on member contributions will decrease from 7.00 percent to 6.50 percent effective January 1, 2021 (based on the adopted decrease in the investment return assumption). There were no other changes in benefit provisions since the previous actuarial valuation as of July 1, 2019. The Board set the rate at 2.50 percent for the indexing percentage for the year beginning July 1, 2020, applicable to the final average salaries of HPRS deferred vested members.

Participant Data

A total of 154 active members were included in the actuarial valuation as of July 1, 2020. Between the 2019 and 2020 actuarial valuations, the number of active employees increased by 10 members, or 6.9 percent. The average annual actuarial valuation pay increased by 3.0 percent, from \$71,904 to \$74,089 between the 2019 and 2020 actuarial valuation. There were 8 active members who were eligible for retirement (normal, early or Rule of 80) as of July 1, 2020.

The number of benefit recipients decreased by 3 members to 133 since the last actuarial valuation. The average monthly benefit increased, from \$3,342 to \$3,526. During the year ending June 30, 2020, there were 3 members awarded a benefit.

There were 26 inactive members as of July 1, 2020 who were vested and elected to receive a deferred benefit. The average monthly deferred benefit is \$2,420. There were 17 inactive members as of July 1, 2020 who elected to receive a refund of contributions.

Actuarial Valuation Assets

On a market value basis, HPRS assets had an investment return of approximately 3.31 percent (net of investment expenses). On an actuarial value of asset basis, NDPERS assets had an investment return of approximately 7.34 percent, which compares to the prior year assumed rate of return of 7.50 percent.

The actuarial value of assets is currently 103.3 percent of the market value of assets. There are \$2,690,731 in net asset losses 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 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 actuarial valuation date is re-amortized over a new 20-year period.



Board Members December 2, 2020 Page 3

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 percent is significantly lower than the actuarial contribution rate of 33.77 percent.

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 and is not high enough to amortize the unfunded liability over any period of time.

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, 2020. 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, 2020, using the Entry Age Normal actuarial cost method. A single discount rate of 4.09 percent (which is different than the rate that is used in the funding actuarial valuation calculations) 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 7.00 percent and the municipal bond rate of 2.45 percent. All other assumptions and methods used in the funding actuarial valuation for calculation of the actuarial accrued liabilities as of July 1, 2020, were used in the GASB 67/68 actuarial valuation for calculation of the total pension liability for fiscal year ending June 30, 2020.

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, 2020.



Board Members December 2, 2020 Page 4

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. Bonita J. Wurst and Abra Hill 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 was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

This report does not fully reflect the recent and still developing impact of COVID-19, which is likely to influence demographic experience and economic expectations, at least in the short term. We will continue to monitor these developments and their impact.

This actuarial valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

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

Bonita J. Wurst, ASA, EA, MAAA, FCA

Bonita J. Wurst

Senior Consultant

Store D. Hill

Abra Hill, ASA, MAAA, FCA Consultant



Actuarial Assumptions and Cost Method – Highway Patrolmen's Retirement System (Adopted July 1, 2020)

Mortality Tables:

Туре	Assumption	Male Scaling	Female Scaling
		Factor	Factor
Post-Retirement	Pub-2010 Healthy Retiree Mortality Table	103%	101%
Non-Disabled	(for General Employees), sex distinct		
Post-Retirement	Pub-2010 Disabled Retiree Mortality Table	117%	112%
Disabled	(for General Employees), sex distinct		
Pre-Retirement	Pub-2010 Employee Mortality Table (for	92%	92%
	General Employees), sex distinct		

Rates of Separation from Active Membership:

Service Beginning	Service and Age-Based Rates For First Five Years of Service
of Year	Rates
0	8.00%
1	8.00%
2	7.00%
3	7.00%
4	6.00%
Age	Rates
Under 35	2.50%
35+	1.25%

Disability Incidence Rates:

Age	Male	Female
20	0.0090%	0.0051%
25	0.0128%	0.0073%
30	0.0165%	0.0094%
35	0.0221%	0.0125%
40	0.0330%	0.0187%
45	0.0539%	0.0306%
50	0.0909%	0.0515%
55	0.1513%	0.0858%
60	0.2440%	0.1383%
65	0.1500%	0.1500%

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:

Iviale &	Female
Rule of 80	Not Rule of 80
100.00%	25.00%
100.00%	25.00%
100.00%	25.00%
100.00%	25.00%
100.00%	25.00%
100.00%	75.00%
100.00%	75.00%
100.00%	75.00%
100.00%	75.00%
100.00%	75.00%
100.00%	100.00%
	100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%

Investment Rate of Return:

7.00% per annum, net of investment expenses

Annual Administrative Expenses:

Prior year expenses, adjusted for inflation

Salary Scale:

Service At	
Beginning	Increase
of Year	Rate
0	10.75%
1	8.75%
2	6.75%
Age*	
Under 30	6.75%
30 - 34	6.75%
35 - 39	6.00%
40 - 44	5.50%
45 - 49	4.75%
50 - 54	4.50%
55 - 59	3.75%
60 - 64	3.75%
65 - 69	3.75%
70+	3.75%

Inflation:

2.25% per annum

Payroll Growth:

3.5% per annum

Marital Status:

It is assumed that 100% of participants have an eligible spouse at the time of retirement or preretirement 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% 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.

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.

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, 2020 valuation:

- The investment return assumption was lowered from 7.5 to 7.0 percent for the July 1, 2020 valuation
- The assumed rate of price inflation was lowered from 2.5 to 2.25 percent for the July 1, 2020 valuation
- The assumed rate of total payroll growth was lowered from 3.75 to 3.5 percent for the July 1, 2020 valuation

Summary of Plan Provisions – Highway Patrolmen's 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:

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

4. Deferred Vested Retirement:

Eligibility: Ten years of service

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:

Year Beginning	Average Annual Increase	Three-Year Average Increase
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%
07/01/2018	0.00%	0.67%
07/01/2019	2.00%	0.67%
07/01/2020	2.50%	1.50%

5. Pre-Retirement Death Benefits:

Eligibility: Ten 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

Eligibility: Less than ten years of service

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

6. Standard and Optional Forms of Payment:

Standard 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:

- 100% joint and survivor annuity
- Ten-year certain and life annuity
- Twenty-year certain and life 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 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 for members terminating on or before December 31, 2019.. For members who terminate employment after December 31, 2019, final average salary is the higher of the final average salary calculated on December 31, 2019, or the average salary earned in the three highest periods of twelve consecutive months employed during the last one hundred eighty months of employment.

8. Contributions:

Member contributions as a percent of monthly salary: 13.3%

Member contributions earn interest at an annual rate equal to .5% less than the actuarial interest rate assumption.

State contributions as a percent of monthly salary for each participating member: 19.7%

Changes in Plan Provisions Since the Previous Valuation:

The interest rate earned on member contributions will decrease from 7.00% to 6.50% effective January 1, 2021 (based on the adopted decrease in the investment return assumption). There have been no other changes in plan provisions since the previous actuarial valuation as of July 1, 2019

Schedule of Active Member Valuation Data - HPRS 2011 – 2020

Valuation Date 7/1 Number		Annual Payroll (\$ in Millions)		age Annual Pay ¹	% Increase in Avg Pay	
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%	
2018	154	10.7		69,723	(1.0)%	
2019	144	10.4		71,904	3.1%	
2020	154	11.4		74,089	3.0%	

¹ Prior to the actuarial valuation as of July 1, 2017, annual payroll and average annual pay were 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 actuarial valuation date.

Results prior to 2016 provided by NDPERS prior actuary.

North Dakota Highway Patrolmen's Retirement System Retirees and Beneficiaries Added to and Removed from the Rolls, 2011 – 2020

	Beg of Year			Added to Rolls		Removed from Rolls		End of Year Balance				Average Annual	% Increase in Annual		
Year	No.	Ann. Benefits*		No.	Ann. Benefits*		No. Ann. Benefits*		No.**	No.** Ann. Benefits*		Benefit		Benefit	
							Retiren	ient							
2011	113	\$	3,502,382	2	\$	58,150	0	\$	1-11	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	(2)		(26,340)	127		4,733,027		37,268	3.2%
2018	127		4,733,027	4		194,391	(4)		(60,036)	127		4,867,383		38,326	2.8%
2019	127		4,867,383	10		624,714	(1)		(37,177)	136		5,454,919		40,110	12.1%
2020	136		5,454,919	3		235,356	(6)		(62,027)	133		5,628,248		42,318	3.2%

 ^{\$} in millions.

Results prior to 2016 provided by NDPERS prior actuary.

^{**} Includes alternate payees.

Solvency Test - HPRS 2011 – 2020

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 Actu		(1) Acti Mem	ve ber	Ret Term V	(2) irees, ested and	Active (Em	(3) Members ployer	V	ctuarial alue of		of Present Value By Assets	
6/30	Accrued Lia		Contrib		-	ficiaries	-	d Portion)	-	Assets	(1)	(2)	(3)
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%
2018		98.4		17.4		60.1		20.8		76.1	100%	98%	0%
2019		106.3		18.2		66.3		21.8		80.9	100%	95%	0%
2020		119.3		19.5		72.6		27.2		84.9	100%	90%	0%

Schedule of Funding Progress

(Amounts in Millions)

	Actuarial Accrued	Actuarial Valuation	Unfunded Actuarial	Ratio of Assets	Active Member	UAAL as Percent of Active
July 1	<u>Liability</u>	of Assets (AVA)	Accrued Liabilities	to AAL	<u>Payroll</u>	Member Payroll
2011	67.1	49.5	17.7	73.7	7.7	228.3
2012	68.5	48.1	20.4	70.3	8.0	254.5
2013	71.9	49.0	22.9	68.2	7.2	279.8
2014	75.5	54.6	20.9	72.3	9.3	223.6
2015	80.1	58.9	21.2	73.5	10.1	209.3
2016	87.9	61.7	26.2	70.2	10.5	248.8
2017	94.0	70.7	23.3	75.2	10.6	219.4
2018	98.4	76.1	22.3	77.4	10.7	207.5
2019	106.3	80.9	25.4	76.1	10.4	245.4
2020	119.3	84.9	34.4	71.2	11.4	301.6

Analysis of Financial Experience - HPRS

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

Plan Year Ended	June 30, 2017	June 30, 2018	June 30, 2019	June 30, 2020
Employer Cost Rate - Beginning of Year	27.11%	25.91%	25.50%	29.38%
Plan Change	0.00	0.00	1.12	0
Plan Experience	(0.03)	(0.31)	(0.14)	(1.25)
Change in Amortization Schedule	0.00	0.00	0.00	0.00
Assumption Changes	(1.36)	0.00	3.08	4.9
Investment Loss/(Gain)	(0.39)	(0.65)	(0.48)	80.0
Contribution Loss/(Gain)	0.58	0.55	0.30	0.66
Employer Cost Rate - End of Year	25.91%	25.50%	29.38%	33.77%

North Dakota Public Employees Retirement System – Actuarial Section Actuary's Certification Letter Job Service Retirement Plan



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December 2, 2020

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, 2020. 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 actuarial valuation report was prepared using actuarial assumptions adopted by the Board as authorized under North Dakota Administrative Code Section 71-02. All actuarial assumptions used in this report are reasonable for the purposes of this actuarial valuation.

Actuarial assumptions used in the actuarial valuation as of July 1, 2020 were based on an experience review for the five-year period ending July 1, 2019. The actuarial assumptions were first adopted for use commencing with this actuarial valuation.

Please refer to the Experience Review for the Five-year Period July 1, 2014 to July 1, 2019 for detail about the assumption changes in this valuation.

The Frozen Initial Liability Actuarial Cost Method is used to determine the actuarial employer contribution rate, which 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 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.

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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 Nos. 67 and 68 were used in the preparation of the accounting disclosures and schedules required by GASB Statement Nos. 67 and 68.

Benefit Provisions

There were no changes in benefit provisions since the previous actuarial valuation as of July 1, 2019.

Participant Data

A total of 5 active members were included in the actuarial valuation as of July 1, 2020. Between the 2019 and 2020 actuarial valuations, the number of active employees decreased from 7 to 5. The average annual valuation pay increased, from \$59,507 to \$62,921 between the 2019 and 2020 actuarial valuation. All 5 active members were eligible for retirement (normal, optional or early) as of July 1, 2020.

The number of benefit recipients decreased from 185 to 181, since the last actuarial valuation. The average monthly benefit paid by Job Service and excluding benefit amounts paid by the insurer increased by 0.9 percent, from \$2,062 to \$2,081. During the year ending June 30, 2020, there were 2 members awarded a benefit. A 1.6 percent cost of living adjustment was granted in December 2019.

There was 1 inactive member as of July 1, 2020 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 2.76 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 3.89 percent, which compares to the prior year assumed rate of return of 4.75 percent.

The actuarial value of assets is currently 102 percent of the market value of assets. There are \$1,703,699 in net asset losses currently being deferred that will be phased into the actuarial value of assets over the next four years.

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 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.



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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, 2020. 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, 2020, under the Entry Age Normal actuarial cost method. A single discount rate of 4.25 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, 2020, were used in the GASB 67/68 actuarial valuation for calculation of the total pension liability for fiscal year ending June 30, 2020.

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, 2020.

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. Bonita J. Wurst and Abra Hill 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.



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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 was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

This report does not fully reflect the recent and still developing impact of COVID-19, which is likely to influence demographic experience and economic expectations, at least in the short term. We will continue to monitor these developments and their impact.

This actuarial valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

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

Bonita J. Wurst, ASA, EA, MAAA, FCA

Bonita J. Wurst

Senior Consultant

Abra Hill, ASA, MAAA, FCA

Abra D. Hill

Consultant



Actuarial Assumptions and Cost Method Retirement Plan for Employees of Job Service of North Dakota

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. This asset smoothing method was first adopted by the Board to use beginning with the July 1, 2017 actuarial valuation. Net deferred asset gains attributable to fiscal years 2016 and prior were fully recognized as of July 1, 2017.

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 2014 - June 2019.

Mortality Tables:

Pub-2010 Healthy Retiree Mortality table (for General Employees), sex-distinct, with rates multiplied by 103% for males and 101% for females. Pub-2010 Disabled Retiree Mortality table (for General Employees), sex-distinct, with rates multiplied by 117% for males and 112% for females. Pub-2010 Employee Mortality table (for General Employees), sex-distinct, with rates multiplied by 92% for both males and females. Mortality rates are projected from 2010 using the MP-2019 scale.

The mortality assumptions are as follows:

Туре	Assumption	Male Scaling Factor	Female Scaling Factor
Post-Retirement Non-Disabled	Pub-2010 Healthy Retiree Mortality Table (for General Employees), sex distinct	103%	101%
Post-Retirement Disabled	Pub-2010 Disabled Retiree Mortality Table (for General Employees), sex distinct	117%	112%
Pre-Retirement	Pub-2010 Employee Mortality Table (for General Employees), sex distinct	92%	92%

Disability Incidence Rates:

Sample rates are as follows:

Age	Male	Female
20	0.0090%	0.0051%
25	0.0128%	0.0073%
30	0.0165%	0.0094%
35	0.0221%	0.0125%
40	0.0330%	0.0187%
45	0.0539%	0.0306%
50	0.0909%	0.0515%
55	0.1513%	0.0858%
60	0.2440%	0.1383%
65	0.1500%	0.1500%

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:

<u>Age</u>	<u>Rates</u>
50-64	15.00%
65+	100.00%

Salary Scale:

3.5% per year.

Post-retirement cost-of-living adjustment:

2.25% per year.

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:

4.25% 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, 2020 actuarial valuation:

- The investment return assumption was lowered from 4.75 to 4.25 percent for the July 1, 2020 valuation
- The assumed rate of price inflation was lowered from 2.5 to 2.25 percent for the July 1, 2020 valuation
- The assumed cost of living adjustment was lowered from 2.5 to 2.25 percent for the July 1, 2020 valuation
- Mortality table updates were made for the July 1, 2020 valuation

All other actuarial assumptions used in the July 1, 2020 are the same as the last actuarial valuation as of July 1, 2019.

Summary of Plan Provisions – Job Service Retirement System

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.

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

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, 2019

Schedule of Active Member Valuation Data Job Service Retirement Plan 2011 – 2020

Valuation Date 7/1	Number	Annual Payroll (\$ in Millions)	_	Average Annual Pay ¹	% Increase in Avg Pay
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	(1.0)%
2017	8	0.5		62,321	(0.7)%
2018	7	0.4		59,522	(4.5)%
2019	7	0.4		59,507	(0.0)%
2020	5	0.3		62,921	5.7%

¹Prior to the actuarial valuation as of July 1, 2017, 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 actuarial valuation date.

Results prior to 2016 provided by NDPERS prior actuary.

Retirement Plan for Employees of Job Service North Dakota Retirees and Beneficiaries (Including Traveler's Annuitants) Added to and Removed from the Rolls, 2011 – 2020

Plan	Beg	of Y	'ear	Add	ded to	Rolls	Remov	ved from Rolls	End of	Year	Balance		verage Annual	% Increase in Annual
Year	No.	An	n. Benefits*	No.	Ann.	Benefits*	No.	Ann. Benefits*	No.**	Ann	. Benefits*	F	Benefit	Benefit
							Retiren	nent						
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%
2018	199		4,527,455	7		239,216	(10)	(169,016)	196		4,597,655		23,457	1.6%
2019	196		4,597,655	0		142,105	(11)	(161,369)	185		4,578,391		24,748	-0.4%
2020	185		4,578,391	7		210,459	(11)	(267,983)	181		4,520,867		24,977	-1.3%

^{*} Includes cost of living adjustment of 3.6% for retirement benefits in pay status as of July 1, 2012, 1.7% as of July 1, 2013, 1.5% as of July 1, 2014, 1.7% as of July 1, 2015, 0.3% as of July 1, 2017, 2.0% as of July 1, 2018, 2.8% as of July 1, 2019, and 1.6% as of July 1, 2020. Excludes benefits paid by the insurer.

Results prior to 2016 provided by NDPERS prior actuary.

^{**} Includes 2 alternate payees.

Solvency Test – Job Service Retirement Plan 2011 – 2020

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		(1) Retirees,	(2) Inactive Vested Employee	(3)	Actuarial	Portion (%)	of Present Value	e Covered
Date	Present Value of	Term Vested and	(Not in	Active	Value of		By Assets	
7/1	Future Benefits	Beneficiaries	Pay Status)	Members	Assets	(1)	(2)	(3)
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%
2018	68.3	62.1	0.0	6.1	98.4	100%	100%	100%
2019	66.3	60.1	0.0	6.2	97.8	100%	100%	100%
2020	64.2	59.4	0.0	4.8	97.0	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.

Schedule of Funding Progress

(Amounts in Millions)

July 1	Present Value of Future Benefits	Valuation Assets (AVA)	Unfunded Present Value of Future Benefits	Ratio of Assets to PVFB	Active Member Payroll	UPVFB as Percent of Active Member Payroll
2011	67.4	74.2	(6.7)	110.0%	1.3	(532.9)%
2012	71.4	75.1	(3.7)	105.2%	1.2	(319.5)%
2013	66.0	76.3	(10.3)	115.6%	1.0	(1,016.4)%
2014	65.2	78.2	(13.0)	119.9%	0.8	(1,538.9)%
2015	63.6	79.2	(15.6)	124.5%	0.8	(1,969.7)%
2016	61.4	81.0	(20.0)	132.0%	0.6	(3,472.6)%
2017	63.8	98.4	(34.5)	154.1%	0.5	(6,926.6)%
2018	68.3	98.4	(30.1)	144.1%	0.4	(7,229.0)%
2019	66.3	97.8	(31.5)	147.5%	0.4	(7,564.2)%
2020	64.2	97.0	(32.7)	151.0%	0.3	(10,406.6)%

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

<u>Plan Year Ended</u>	June 30, 2017	June 30, 2018	June 30, 2019	June 30, 2020
Employer Cost Rate - Beginning of Year	0.00%	0.00%	0.00%	0.00%
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
Employer Cost Rate - End of Year	0.00%	0.00%	0.00%	0.00%



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December 2, 2020

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, 2020. 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 actuarial valuation report was prepared using actuarial assumptions adopted by the Board as authorized under North Dakota Administrative Code Section 71-06. All actuarial assumptions used in this report are reasonable for the purposes of this actuarial valuation.

Actuarial assumptions used in the actuarial valuation as of July 1, 2020 were based on an experience review for the five-year period ending July 1, 2019. The actuarial assumptions were first adopted for use commencing with this actuarial valuation.

Significant changes since the previous valuation include:

- · A decrease in the investment return assumption, from 7.25 percent to 6.50 percent.
- Liabilities for current terminated vested members are included; and
- Participation rates are reflected for current active and terminated vested members and retired members eligible (but not currently receiving benefits).

Please refer to the Experience Review for the Five-year Period July 1, 2014 to July 1, 2019 for detail about the assumption changes in this valuation.

Prior to the actuarial valuation as of July 1, 2019, the actuarial contribution rate was calculated using a 40-year closed period (beginning July 1, 1990) level-percentage of pay amortization of the unfunded liability. The remaining amortization period as of the last actuarial valuation date was 12 years. First effective with the actuarial valuation as of July 1, 2019, the Board adopted a change in the method used to calculate the actuarial rate to a modified version of the Aggregate Actuarial Cost Method in order to be more consistent with projected contributions to a mostly closed plan. The actuarial rate is equal to

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the rate needed to pay off the unfunded liability and future Normal Cost contributions at the end of 20 years as a level percent of closed group (decreasing) payroll.

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 Nos. 74 and 75 were used in the preparation of the accounting disclosures and schedules required by GASB Statement Nos. 74 and 75.

Benefit Provisions

Beginning January 1, 2020, members first enrolled in the NDPERS Main System and the Defined Contribution Plan on or after that date will not be eligible to participate in RHIC. Therefore, RHIC has become for the most part a closed plan. The RHIC employer contributions for members first enrolled in the NDPERS Main System on or after January 1, 2020 are made as additional contributions to the NDPERS Main System. The RHIC employer contributions for members first enrolled in the NDPERS Defined Contribution plan on or after January 1, 2020 are made as additional contributions to the members' defined contribution accounts. There were no changes in plan provisions since the previous valuation.

Participant Data

A total of 23,495 active members were included in the actuarial valuation as of July 1, 2020. Between the 2019 and 2020 actuarial valuations, the number of active employees decreased by 502 members, or 2.1 percent. The average annual valuation pay increased by 4.3 percent, from \$46,500 to \$48,520 between the 2019 and 2020 actuarial valuations.

The number of eligible current benefit recipients increased from 12,471 to 13,092, or 5.0 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 remained the same at \$98. The assumed average monthly benefit utilized was \$88.

A total of 6,734 terminated vested members were included in the actuarial valuation as of July 1, 2020. Terminated vested liabilities were not reflected in prior valuations.

Actuarial Valuation Assets

On a market value basis, RHIC assets had an investment return of approximately 5 percent (net of investment expenses). On an actuarial value of asset basis, RHIC assets had an investment return of approximately 7.02 percent, which compares to the prior year assumed rate of return of 7.25 percent.

The actuarial value of assets is currently 102 percent of the market value of assets. There are \$2,892,774 in net asset losses 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

First effective with the actuarial valuation as of July 1, 2019, the actuarially determined contribution rate is calculated as the rate needed to pay off the unfunded liability and future Normal Cost contributions at the end of 20 years as a level percent of closed group (decreasing) payroll. If employers contributed the actuarial contribution rate, the contribution rate would be expected to remain level over the 20-year period (assuming the actuarial assumptions are realized, including a 6.50 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 percent is slightly higher than the actuarial contribution rate of 1.11 percent.

The statutory contribution is expected to fully fund the current unfunded liability (assuming the actuarial assumptions are realized, including a 6.50 return on the actuarial value of assets) over a period of approximately 18 years.

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, 2020. 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. 74 and 75

The total OPEB liability (actuarial accrued liability) is based on a measurement date of July 1, 2020, under the Entry Age Normal actuarial cost method. A single discount rate of 6.50 percent (which is the same rate that is used in the funding actuarial valuation calculations) was used to measure the total OPEB liability. All other assumptions and methods used in the funding actuarial valuation for calculation of the actuarial accrued liabilities as of July 1, 2020, were used in the GASB 74/75 actuarial valuation for calculation of the total OPEB liability for fiscal year ending June 30, 2020.



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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, 2020.

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. Bonita J. Wurst and Abra Hill 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 was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

This report does not fully reflect the recent and still developing impact of COVID-19, which is likely to influence demographic experience and economic expectations, at least in the short term. We will continue to monitor these developments and their impact.

This actuarial valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

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

Bonita J. Wurst, ASA, EA, MAAA, FCA

Bonita J. Wurst

Senior Consultant

Abra Hill, ASA, MAAA, FCA

Abra D. Hill

Consultant



Actuarial Assumptions and Cost Method Retiree Health Insurance Credit Fund

Mortality Tables:

The mortality assumptions are as follows:

Туре	Assumption	Male Scaling	Female Scaling
		Factor	Factor
Post-Retirement Non-Disabled	Pub-2010 Healthy Retiree Mortality Table (for General Employees), sex distinct	103%	101%
Post-Retirement Disabled	Pub-2010 Disabled Retiree Mortality Table (for General Employees), sex distinct	117%	112%
Pre-Retirement	Pub-2010 Employee Mortality Table (for General Employees), sex distinct	92%	92%

Following is a table with the life expectancies by age as of the actuarial valuation date.

	Healthy Mortality		Disabled Mortality			
	Future Expectancy (y		Future Life Expectancy (years) in 2020			
Age	Male	Female	Male	Female		
20	67.00	70.49	49.44	54.04		
25	61.62	65.09	44.73	48.91		
30	56.26	59.69	40.00	43.85		
35	50.94	54.32	35.65	39.19		
40	45.66	48.97	31.58	34.92		
45	40.42	43.65	27.66	30.91		
50	35.29	38.45	23.98	27.19		
55	30.40	33.47	20.70	23.90		
60	25.70	28.61	17.82	20.91		
65	21.23	23.88	15.18	17.87		
70	16.98	19.33	12.59	14.66		
75	13.05	15.06	10.02	11.50		
80	9.60	11.24	7.63	8.71		
85	6.79	8.02	5.62	6.48		
90	4.73	5.57	4.02	4.83		
95	3.33	3.89	2.90	3.51		
100	2.38	2.73	2.08	2.46		
105	1.80	2.00	1.55	1.78		

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.

Service Beginning		Main System	1	Public Safety				
of Year			A	ge				
	Under 30	30-39	40+	Under 30	30-39	40+		
0	28.00%	20.00%	17.00%	27.00%	19.00%	16.00%		
1	24.00%	17.00%	14.00%	25.00%	19.00%	16.00%		
2	18.00%	14.00%	12.00%	20.00%	16.00%	14.00%		
3	16.00%	13.00%	12.00%	17.00%	14.00%	14.00%		
4	13.00%	11.00%	11.00%	17.00%	10.00%	10.00%		
Age	Ag	ge-Based Ra	tes Only Aft	er First Five Ye	ars of Servi	ce		
	P	Main System	1	P	ublic Safety			
20-24		11.00%			10.00%			
25-29		10.00%			10.00%			
30-34		6.50%			7.50%			
35-39		5.50%			7.50%			
40-44		4.50%			5.00%			
45-49		4.20%			5.00%			

5.00%

5.00%

5.00%

No pre-retirement termination is assumed for Judges.

3.90%

3.60%

3.30%

Disability Incidence Rates:

Sample rates are as follows:

50-54

55-59

60+

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	0.0090%	0.0051%
25	0.0128%	0.0073%
30	0.0165%	0.0094%
35	0.0221%	0.0125%
40	0.0330%	0.0187%
45	0.0539%	0.0306%
50	0.0909%	0.0515%
55	0.1513%	0.0858%
60	0.2440%	0.1383%
65	0.1500%	0.1500%

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.

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

	Main System					Public Safety			ludges	Highway Patrol	
Age	Reduced	Unreduced	- Rule of 85	Unreduced	- Not Rule of 85	Rule of 85	Not Rule of 85	Rule of 85	Not Rule of 85	Rule of 80	Not Rule of 80
50		50%				25%	4%			100%	25%
51		20%				25%	4%			100%	25%
52		20%				25%	4%			100%	25%
53		20%				25%	4%			100%	25%
54		20%				25%	4%			100%	25%
55	1%	8%				25%	10%	10%	2%	100%	75%
56	1%	8%				25%	10%	10%	2%	100%	75%
57	1%	8%				25%	10%	10%	2%	100%	75%
58	1%	9%				25%	10%	10%	2%	100%	75%
59	2%	9%				25%	10%	10%	2%	100%	75%
60	2%	9%				25%	10%	10%	2%	100%	100%
61	4%	15%				25%	10%	10%	2%		
62	8%	20%				50%	25%	10%	2%		
63	8%	20%				50%	25%	10%	2%		
64	8%	20%				50%	25%	10%	2%		
65		35%			20%	50%	50%	100%	10%		
66		35%			20%	50%	50%	100%	10%		
67		20%			15%	50%	50%	100%	10%		
68		20%			15%	50%	50%	100%	10%		
69		20%			15%	50%	50%	100%	10%		
70		20%			15%	100%	50%	100%	20%		
71		20%			15%	100%	50%	100%	20%		
72		20%			15%	100%	50%	100%	20%		
73		20%			15%	100%	50%	100%	20%		
74		20%			15%	100%	50%	100%	20%		
75		50%		- 3	50%	100%	100%	100%	100%		
76		50%			50%						
77		50%			50%						
78		50%		- 1	50%						
79		50%		- 2	50%						
80+		100%		1	00%						

Unreduced retirement is achieved when reaching age 65 or meeting the Rule of 85.

Participation Rates:

Participation Rates for current members eligible to receive a benefit were as follows:

Benefit Status of Eligible Member	Age	Participation Rate
Currently Receiving Benefits	Any	100.0%
Not Currently Receiving Benefits	65 and Over	0.0%
Not Currently Receiving Benefits	Under 65	100% Upon Attainment of Age 65

Participation Rates for current active and terminated vested members were as follows:

Years of Service at Retirement/Termination	Under Age 55	Age 55-64	Age 65+
Less than 5	33.0%	38.5%	55.0%
5-10	42.0%	49.0%	70.0%
10-15	48.0%	56.0%	80.0%
15-20	51.0%	59.5%	85.0%
20-25	54.0%	63.0%	90.0%
25+	54.0%	63.0%	90.0%

Benefit Election:

Main and DC Systems and Law Enforcement:

- 50% of participants are assumed to elect the Single Life Annuity
- 45% are assumed to elect the 50% 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

Interest Rate:

6.50% per annum, net of investment expenses

Inflation:

2.25% 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 preretirement 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:

3.5% 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 pay

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, 2020 valuation:

- The investment return assumption was lowered from 7.25% to 6.5%
- The assumed rate of price inflation was lowered from 2.5% to 2.25%
- The assumed rate of total payroll growth was lowered from 3.75% to 3.5%

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. Members first enrolled in the NDPERS Main and the Defined Contribution Retirement Plan on or after January 1, 2020 are not eligible to participate in RHIC.

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. Effective August 1, 2019 the benefit may be used for any eligible health, prescription drug plan, dental, vision, or long term care plan premium expense.

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

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 or Rule of 90, minimum age 60 (if applicable)

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.

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. The RHIC employer contributions for members first enrolled in the NDPERS Main System on or after January 1, 2020 are made as additional contributions to the NDPERS Main System. The RHIC employer contributions for members first enrolled in the NDPERS Defined Contribution plan on or after January 1, 2020 are made as additional contributions to the member's defined contribution account.

Plan Amendments - Retiree Health Insurance Credit Fund

Beginning January 1, 2020, members first enrolled in the NDPERS Main System and the Defined Contribution Plan on or after that date will not be eligible to participate in RHIC. Therefore, RHIC will become for the most part a closed plan. There have been no other changes in plan provisions since the previous actuarial valuation as of July 1, 2019.

Retired Members and Beneficiaries, Average Annual Benefit and Active Member/Retiree Comparison Retiree Health Insurance Credit Fund 2011 – 2020

Valuation Date 7/1	Number of Active Members*	Number of Terminated Vested Members ¹	Number of Retired Members	verage al Benefit	Number of Active Members Per Retiree	
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	
2018	23,747		11,823	1,170	2.0	
2019	23,997		12,471	1,174	1.9	
2020	23,495	6,734	13,092	1,175	1.8	

^{*} Number of active members prior to 7/1/2014 is approximated based on figures from the NDPERS Comprehensive Annual Financial Report.

¹ Terminated vested member liabilities first reflected in 2020.

Schedule of Funding Progress

(Amounts in Millions)

	Actuarial Value	Actuarial Accrued	AVA Unfunded	AVA Funded	Market Value	MVA Unfunded	MVA Funded
July 1	of Assets	Liability	AAL (UAAL)	<u>Ratio</u>	of Assets (MVA)	AAL (UAAL)	<u>Ratio</u>
2011	53.7	108.4	54.7	49.6	58.7	49.6	54.2
2012	58.3	112.4	54.1	51.9	63.9	48.5	56.9
2013	66.0	114.1	48.1	57.8	75.6	38.5	66.2
2014	77.9	116.6	38.7	66.8	92.0	24.6	78.9
2015	89.4	128.9	39.5	69.4	99.1	29.8	76.9
2016	97.8	176.6	78.8	55.4	102.9	73.7	58.3
2017	114.6	196.7	82.1	58.3	117.6	79.1	59.8
2018	126.2	206.7	80.5	61.1	127.9	78.8	61.9
2019	137.6	217.8	80.2	63.2	137.5	80.3	63.1
2020	148.5	229.7	81.2	64.6	145.6	84.1	63.4

Assets and Actuarial Accrued Liabilities Retiree Health Insurance Credit Fund 2011-2020

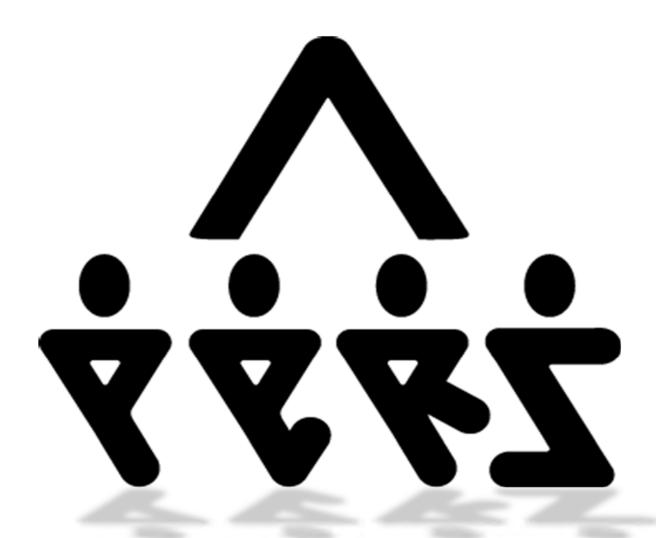
(Amounts in Millions)

			'			
			Assets as of % of Total	Unfunded		Total Unfunded
	Total Actuarial	Total Actuarial	Actuarial Accrued	Actuarial Accrued	Total	Liability as
July 1	Accrued Liability	Value of Assets	<u>Liability</u>	<u>Liability</u>	Payroll	% of Payroll
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
2018	206.7	126.2	61.1	80.5	1,170.9	7.2
2019	217.8	137.6	63.2	80.2	1,195.3	7.2
2020	229.7	148.5	64.6	84.1	1,140.0	7.4

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

Plan Year Ended	June 30, 2017	June 30, 2018	June 30, 2019	June 30, 2020
Employer Cost Rate - Beginning of Year	1.02%	1.05%	1.09%	1.02%
Plan Change	0.00	0.00	0.00	0.00
Plan Experience	0.01	0.05	(.02)	(.01)
Change in Amortization Schedule	0.00	0.00	0.00	0.00
Assumption Changes	0.03	0.00	(.04)	0.11
Investment Loss/(Gain)	(.01)	(.01)	(.01)	0.00
Contribution Loss/(Gain)	0.00	0.00	0.00	(.01)
Employer Cost Rate - End of Year	1.05%	1.09%	1.02%	1.11%



STATISTICAL SECTION

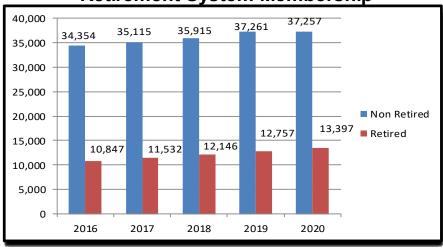
The Statistical Section contains membership and financial information for the programs administered by the System. Included in this section are schedules providing financial trend information for administrative cost per member, benefits paid, changes in net position and deferred compensation assets by 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.

Retirement System Membership - PERS, HPRS, and Job Service As of June 30

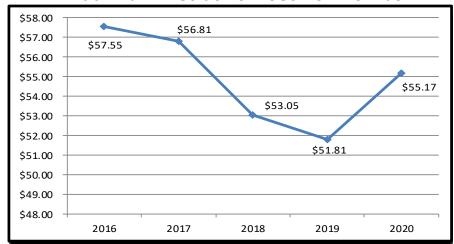
	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
State Agencies	15,254	15,157	15,174	15,205	15,022
Cities	2,641	2,820	2,946	3,333	3,454
Counties	5,986	6,157	6,343	6,529	6,368
School Districts	9,528	9,971	10,390	11,070	11,285
Other Political Subdivisions	945	1,010	1,062	1,124	1,128
Total Non-Retired ⁽¹⁾	34,354	35,115	35,915	37,261	37,257
Retired Members & Beneficiaries	10,847	11,532	12,146	12,757	13,397
Total Membership	45,201	46,647	48,061	50,018	50,654
Administrative Expenses	\$ 2,601,502	\$ 2,650,122	\$ 2,549,409	\$ 2,591,667	\$ 2,794,805
Administrative Cost Per Member	\$ 57.55	\$ 56.81	\$ 53.05	\$ 51.81	\$ 55.17

⁽¹⁾ Total non-retired members includes all contributing members plus all non-contributing members who have not begun to receive retirement benefits





Annual Administrative Cost Per Member



Schedule of Benefit Expenses by Type - PERS Fiscal Year Ended June 30

FY Ended	nded Annuities		Ref	unds			
June 30	Retirant	Disability	Survivor	Death	Separation	Transfers	Total
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
2018	159,661,655	1,943,716	9,566,078	1,618,411	9,541,076	190,727	182,521,663
2019	173,479,569	1,898,910	10,266,007	1,022,439	10,760,049	330,963	197,757,937
2020	190,942,582	1,969,568	11,400,300	1,599,850	12,522,865	118,721	218,553,888

Schedule of Benefit Expenses by Type - HPRS Fiscal Year Ended June 30

FY Ended	Annuities			Refunds							
June 30	Retirant	Disability	Survivor	Death	h Separation		eath Separation Transfers		To	Total	
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		
2018	4,361,198	111,204	421,406		0	87,569		0	4,981,377		
2019	4,811,640	117,268	412,348		0	49,859		0	5,391,115		
2020	5,057,745	117,268	405,319		0	124,254		0	5,704,586		

Schedule of Benefit Expenses by Type - Job Service Fiscal Year Ended June 30

FY Ended	Annuities				S				
June 30	Retirant	Disability	Survivor	Death Separation		paration Transfer	s To	Total	
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	
2018	4,325,831	73,795	182,951		0	0	0	4,582,577	
2019	4,388,276	75,587	162,983		0	0	0	4,626,846	
2020	4,314,030	77,142	175,543		0	14,861	0	4,581,576	

North Dakota Public Employees Retirement System – Statistical Section Changes in Net Position

Changes in Net Position

				Purchased				Employer Contributions
Additions:	FY Ended	Member	Employer	Service	Investment	Miscellaneous	Total	as a % of
	<u>30-Jun</u>	Contributions	Contributions	<u>Credit</u>	Income	Income	<u>Additions</u>	Covered Payroll
Public Employees								
Retirement System:	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	· <u>-</u>	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%
	2018	77,486,189	80,727,209	19,984,972	249,165,181	(24,440)	427,339,111	7.01%
	2019	78,213,580	81,588,318	7,219,697	159,824,092	(5,641)	326,840,046	7.09%
	2020	81,477,666	85,504,033	10,818,588	101,105,998	(2,580)	278,903,705	6.90%
Highway Patrolmen's								
Retirement System:	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%
	2018	1,453,533	2,152,970	281,573	6,716,525	(187)	10,604,414	18.70%
	2019	1,411,619	2,090,886	167,824	4,250,901	(41)	7,921,189	20.19%
	2020	1,469,682	2,176,902	205,461	2,667,371	(16)	6,519,400	18.00%
Job Service								
Retirement Plan:	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%
	2018	32,987	-	-	2,918,585	-	2,951,572	0.00%
	2019	29,159	-	-	6,229,630	-	6,258,789	0.00%
	2020	27,047	-	-	2,621,067	-	2,648,114	0.00%
Retiree Health								
Insurance Credit Plan:	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%
	2018	15,984	12,834,547	746,942	8,210,898	-	21,808,371	1.10%
	2019	15,859	12,977,460	377,329	8,178,932	(857)	21,548,723	1.09%
	2020	16,319	13,392,266	556,585	6,904,869	9,580	20,879,619	1.11%

Changes in Net Position

Deductions:	FY Ended <u>30-Jun</u>	<u>Benefits</u>	Administrative Expenses	Transfers & Refunds	Total <u>Deductions</u>	Change in Net Position
Public Employees						
Retirement System:	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
	2018	171,171,449	2,472,761	11,350,214	184,994,424	242,344,687
	2019	185,644,486	2,531,304	12,113,451	200,289,241	126,550,805
	2020	204,312,452	2,729,759	14,241,436	221,283,647	57,620,058
Highway Patrolmen's						
Retirement System:	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
	2018	4,893,808	30,353	87,569	5,011,730	5,592,684
	2019	5,341,256	43,555	49,859	5,434,670	2,486,519
	2020	5,580,332	45,870	124,254	5,750,456	768,944
Job Service						
Retirement Plan:	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
	2018	4,582,577	46,295	-	4,628,872	(1,677,300)
	2019	4,626,846	16,808	-	4,643,654	1,615,135
	2020	4,581,575	19,148	-	4,600,723	(1,952,609)
Retiree Health						
Insurance Credit Plan:	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
	2018	11,013,375	480,244	2,685	11,496,304	10,312,292
	2019	11,497,890	437,349	7,180	11,942,419	9,606,304
	2020	12,312,461	453,913	4,614	12,770,988	8,108,631

Schedule of Retired Members by Type of Benefit - PERS As of June 30, 2020 Main System

Monthly Amount	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under \$200	662	522	2	38	199	1,423	1,224
\$200 - \$400	700	820	23	55	253	1,851	1,598
\$400 - \$600	592	626	34	63	195	1,510	1,315
\$600 - \$800	427	350	36	123	126	1,062	936
\$800 - \$1,000	376	179	20	248	66	889	823
\$1,000 - \$1,200	288	141	8	340	65	842	777
\$1,200 - \$1,400	218	73	1	364	49	705	656
\$1,400 - \$1,600	180	38	1	326	27	572	545
\$1,600 - \$1,800	148	19	2	365	22	556	534
\$1,800 - \$2,000	134	14	0	327	22	497	475
\$2,000 - \$2,200	95	6	0	278	16	395	379
\$2,200 - \$2,400	88	8	0	257	16	369	353
\$2,400 - \$2,600	64	3	1	251	6	325	319
\$2,600 - \$2,800	60	3	0	202	7	272	265
\$2,800 - \$3,000	37	2	0	161	8	208	200
\$3,000 and Over	275	3	0	963	31	1,272	1,241
Total	4,344	2,807	128	4,361	1,108	12,748	11,640
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	2,704	1,994	106	2,045	222	7,071	6,849
Life 1% Graduated Benefits	4	0	0	3	0	7	7
Life 2% Graduated Benefits	10	0	0	9	0	19	19
Level Social Security Payment	1	19	0	91	0	111	111
Joint & 100% Survivor	1,059	512	15	1,369	573	3,528	2,955
Joint & 100% Survivor 1% Graduated Benefits	1	0	0	3	0	4	4
Joint & 100% Survivor 2% Graduated Benefits	9	0	0	7	0	16	16
Joint & 50% Survivor	452	192	7	754	256	1,661	1,405
Joint & 50% Survivor 1% Graduated Benefits	4	0	0	2	0	6	6
Joint & 50% Survivor 2% Graduated Benefits	0	0	0	2	0	2	2
20 Year C & L	46	24	0	21	26	117	91
10 Year C & L	51	58	0	44	25	178	153
10 Year C & L 1% Graduated Benefits	0	0	0	1	0	1	1
5 Year C & L	3	8	0	10	6	27	21
Total	4,344	2,807	128	4,361	1,108	12,748	11,640
Age	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under 50	0	0	15	0	33	48	15
50 - 54	0	0	21	16	27	64	37
55 - 59	0	28	29	271	40	368	328
60 - 64	0	329	63	844	86	1,322	1,236
65 - 69	1,313	727	0	1,315	133	3,488	3,355
70 - 74	1,311	658	0	899	185	3,053	2,868
75 and Over	1,720	1,065	0	1,016	604	4,405	3,801
Total	4,344	2,807	128	4,361	1.108	12,748	11,640

^{*} Includes Rule of 85, Rule of 88 and Rule of 90.
** Includes alternate payees

^{***} Total excluding beneficiaries

Schedule of Retired Members by Type of Benefit - PERS As of June 30, 2020

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	2	0	0	0	0	2	2
\$1,200 - \$1,600	0	0	0	2	1	3	2
\$1,600 - \$2,000	1	2	0	0	3	6	3
\$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	2	0	0	0	3	5	2
\$3,200 - \$3,600	1	1	0	0	1	3	2
\$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	3	0	0	2	1	6	5
\$4,800 - \$5,200	0	0	0	0	2	2	0
\$5,200 - \$5,600	2	0	0	2	0	4	4
\$5,600 - \$6,000	1	0	0	1	0	2	2
\$6,000 and Over	10	0	1	6	2	19	17
Total	26	4	1	13	16	60	44
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	1	0	0	1	4	6	2
Level Social Security Payment	0	0	0	0	0	0	0
Joint & 100% Survivor	19	2	0	7	10	38	28
Joint & 50% Survivor	6	2	1	5	2	16	14
10 Year C & L	0	0	0	0	0	0	0
5 Year C & L	0	0	0	0	0	0	0
Total	26	4	1	13	16	60	44
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	0	0	2	1	3	2
65 - 69	7	1	0	4	1	13	12
70 - 74	8	1	0	3	7	19	12
75 and Over	11	2	0	4	7	24	17
Total	26	4	1	13	16	60	44

^{*} Includes Rule of 85, Rule of 88 and Rule of 90.

^{**} Includes alternate payees

^{***} Total excluding beneficiaries

Schedule of Retired Members by Type of Benefit - PERS As of June 30, 2020

Public Safety with Prior Main Service

Monthly Amount	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under \$200	4	1	0	0	3	8	5
\$200 - \$400	4	2	0	0	2	8	6
\$400 - \$600	9	4	0	0	1	14	13
\$600 - \$800	7	1	0	0	3	11	8
\$800 - \$1,000	6	1	0	0	0	7	7
\$1,000 - \$1,200	10	0	0	0	1	11	10
\$1,200 - \$1,400	4	0	0	0	0	4	4
\$1,400 - \$1,600	9	0	1	1	0	11	11
\$1,600 - \$1,800	5	0	0	0	0	5	5
\$1,800 - \$2,000	4	1	0	0	0	5	5
\$2,000 - \$2,200	3	0	0	1	2	6	4
\$2,200 - \$2,400	3	0	0	1	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	1	0	2	2
\$3,000 and Over	19	1	0	5	0	25	25
Total	91	12	1	9	12	125	113
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	44	6	1	1	0	52	52
Level Social Security Payment	2	2	0	1	0	5	5
Joint & 100% Survivor	26	4	0	6	5	41	36
Joint & 100% Survivor 1% Graduated Benefits	0	0	0	0	0	0	0
Joint & 50% Survivor	18	0	0	1	1	20	19
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
Total	91	12	1	9	12	125	113
Age	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Under 50	0	0	1	0	5	6	1
50 - 54	0	3	0	2	0	5	5
55 - 59	12	1	0	1	0	14	14
60 - 64	22	5	0	5	1	33	32
65 - 69	34	0	0	0	3	37	34
70 - 74	18	1	0	1	3	23	20
75 and Over	5	2	0	0	0	7	7
Total	91	12	1	9	12	125	113

^{*} Includes Rule of 85, Rule of 88 and Rule of 90.

^{**} Includes alternate payees

^{***} Total excluding beneficiaries

Schedule of Retired Members by Type of Benefit - PERS As of June 30, 2020

Public Safety 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	4	1	0	0	0	5	5
\$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	1	1	0
\$1,200 - \$1,400	1	0	0	0	0	1	1
\$1,400 - \$1,600	1	0	0	0	0	1	1
\$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
Total	9	1	1	0	1	12	11
Payment Option	Normal	Early	Disability	Service*	Beneficiary**	Total	Total***
Life	2	0	1	0	1	4	3
Level Social Security Payment	0	0	0	0	0	0	0
Joint & 100% Survivor	5	1	0	0	0	6	6
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
Total	9	1	1	0	1	12	11
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	3	1	0	0	1.	5	4
60 - 64	2	0	0	0	0	2	2
65 - 69	4	0	0	0	0	4	4
70 - 74	0	0	0	0	0	0	0
75 and Over	0	0	0	0	0	0	0
Total	9	1	1	0	1	12	11

Includes Rule of 85, Rule of 88 and Rule of 90.

^{**} Includes alternate payees
*** Total excluding beneficiaries

Schedule of Retired Members by Type of Benefit - HPRS As of June 30, 2020

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^{*} Includes Rule of 80.

^{**} Includes alternate payees

Schedule of Retired Members by Type of Benefit - Job Service Retirement Plan as of June 30, 2020

Monthly Amount	Normal	Early	Disability	Beneficiary*	Total
Under \$200	5	0	0	2	7
\$200 - \$400	7	0	0	3	10
\$400 - \$600	4	0	0	2	6
\$600 - \$800	4	0	0	6	10
\$800 - \$1,000	3	0	0	3	6
\$1,000 - \$1,200	3	0	0	4	7
\$1,200 - \$1,400	7	0	1	4	12
\$1,400 - \$1,600	7	0	0	2	9
\$1,600 - \$1,800	10	0	0	4	14
\$1,800 - \$2,000	8	0	0	3	11
\$2,000 - \$2,200	13	0	0	0	13
\$2,200 - \$2,400	7	0	0	1	8
\$2,400 - \$2,600	7	0	0	0	7
\$2,600 - \$2,800	12	0	0	0	12
\$2,800 - \$3,000	6	0	0	0	6
\$3,000 - \$3,200	9	0	0	0	9
\$3,200 - \$3,400	10	0	0	0	10
\$3,400 - \$3,600	3	0	0	0	3
\$3,600 - \$3,800	6	0	0	0	6
\$3,800 - \$4,000	4	0	0	0	4
\$4,000 - \$4,200	1	0	0	0	1
\$4,200 - \$4,400	3	0	0	0	3
\$4,400 - \$4,600	1	0	0	0	1
\$4,600 - \$4,800	1	0	0	0	
		75.7	0	0	1
\$4,800 - \$5,000	1 4	0			1
\$5,000 and Over Total	146	0	0	34	181
Payment Option	Normal	Early	Disability	Beneficiary*	Total
Life Coption	39	0	0	11	50
Joint & 55% Survivor	29			13	43
		0	0		
Joint & 75% Survivor	18	0		7	25
Joint & 100% Survivor	15	0	0	2	17
10 Year C & L	21	0	0	1	22
15 Year C & L	2	0	0	0	2
20 Year C & L	22 146	0	1	34	22
Total					181
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	4	0	1	0	5
65 - 69	20	0	0	2	22
70 - 74	39	0	0	5	44
75 - 79	36	0	0	5	41
80 - 84	21	0	0	9	30
85 - 89	12	0	0	3	15
90 and Over	14	0	0	10	24
Total	146	0	1	34	181

^{*} Includes 2 alternate payees

Monthly Benefit Amount - Retiree Health Insurance Credit Plan as of June 30, 2020

		The state of the s										
Age	Under \$30	\$30-\$59	\$60-\$89	\$90-\$119	\$120-\$149	\$150-\$179	\$180 and over	Total				
Under 50	7	13	4	3	0	1	0	28				
50 - 54	15	12	13	5	11	20	1	77				
55 - 59	36	40	31	14	76	176	36	409				
60 - 64	142	208	138	85	304	337	180	1,394				
65 - 69	478	709	526	455	615	478	339	3,600				
70 - 74	425	674	494	424	546	317	238	3,118				
75 - 79	242	406	363	318	330	181	125	1,965				
80 - 84	175	293	293	191	200	124	77	1,353				
85 - 89	76	178	163	97	104	56	49	723				
90 and Over	33	103	109	73	46	34	27	425				
Total	1,629	2,636	2,134	1,665	2,232	1,724	1,072	13,092				

Schedule of Average Benefit Payments - As of June 30 Retiree Health Insurance Credit Fund

	<u>Total</u>
2016 Total Participants Average Monthly Benefits	10,320 \$100
2017 Total Participants Average Monthly Benefits	11,232 \$97
2018 Total Participants Average Monthly Benefits	11,823 \$98
2019 Total Participants Average Monthly Benefits	12,471 \$98
2020 Total Participants Average Monthly Benefits	13,092 \$88

Schedule of Average Benefit Payments - PERS As of June 30 Main System Years of Credited Service

		Years of	Credited Ser	vice									
	< 10	10-14	15-19	20-24	25-29	>=30	Total						
2016													
Number of Retirees	1 0 1 0	1 171	1 260	1 226	1,470	2.005	0.400						
Average Monthly Benefits	1,848 \$ 255	1,471 \$ 469	1,268 \$ 684	1,336 \$ 1,151	1,470 \$ 1,613	2,095 \$ 2,432	9,488 \$ 1,163						
Average Years of Service	ъ 255 6.25	ъ 409 12.33	ъ 004 17.29	ъ 1,151 22.57	क 1,013 27.27	φ 2,432 35.17	په ۱, ۱۵۵ 20.61						
Average rears of Service	0.23	12.33	17.29	22.31	21.21	33.17	20.01						
2017													
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						
2018													
Number of Retirees	2,052	1,577	1,388	1,451	1,629	2,436	10,533						
Average Monthly Benefits	\$ 267	\$ 506	\$ 747	\$ 1,223	\$ 1,709	\$ 2,637	\$ 1,269						
Average Years of Service	6.27	12.33	17.29	22.57	27.31	35.45	20.88						
_	0.27	12.00	17.23	22.51	27.51	33.43	20.00						
2019													
Number of Retirees	2,175	1,627	1,440	1,540	1,712	2,588	11,082						
Average Monthly Benefits	\$ 273	\$ 523	\$ 780	\$ 1,274	\$ 1,773	\$ 2,735	\$ 1,321						
Average Years of Service	6.26	12.31	17.30	22.56	27.33	35.53	20.94						
2020													
Number of Retirees	2,322	1,689	1,481	1,618	1,778	2,752	11,640						
Average Monthly Benefits	\$ 282	\$ 550	\$ 814	\$ 1,316	\$ 1,812	\$ 2,823	\$ 1,367						
Average Years of Service	6.26	12.30	17.31	22.57	27.34	35.60	20.96						
,go	0.20					33.33	_0.00						
Sci	hedule of Av	erage Bene	efit Payments	s - PERS As	of June 30								
		Schedule of Average Benefit Payments - PERS As of June 30 Judges											
Years of Credited Service													
			_	vice									
	< 10		_	vice 20-24	25-29	>=30	Total						
	< 10	Years of	Credited Ser		25-29	>=30	Total						
2016		Years of 10-14	Credited Ser 15-19	20-24									
Number of Retirees	1	Years of 10-14	Credited Ser 15-19	20-24	9	4	33						
Number of Retirees Average Monthly Benefits	1 \$ 1,057	Years of 10-14 6 \$ 2,817	Credited Ser 15-19 8 \$ 4,288	5 \$ 5,303	9 \$ 5,097	4 \$ 5,887	33 \$ 4,491						
Number of Retirees	1	Years of 10-14	Credited Ser 15-19	20-24	9	4	33						
Number of Retirees Average Monthly Benefits Average Years of Service	1 \$ 1,057	Years of 10-14 6 \$ 2,817	Credited Ser 15-19 8 \$ 4,288	5 \$ 5,303	9 \$ 5,097	4 \$ 5,887	33 \$ 4,491						
Number of Retirees Average Monthly Benefits Average Years of Service	1 \$ 1,057 3.33	Years of 10-14 6 \$ 2,817 12.25	8 \$ 4,288 17.73	5 \$ 5,303 23.78	9 \$ 5,097 26.82	4 \$ 5,887 32.27	33 \$ 4,491 21.46						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees	1 \$ 1,057 3.33	Years of 10-14 6 \$ 2,817 12.25	8 \$ 4,288 17.73	20-24 5 \$ 5,303 23.78	9 \$ 5,097 26.82	4 \$ 5,887 32.27	33 \$ 4,491 21.46						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits	1 \$ 1,057 3.33 3 \$ 2,467	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773	8 \$ 4,288 17.73 5 \$ 3,545	20-24 5 \$ 5,303 23.78 10 \$ 5,380	9 \$ 5,097 26.82 8 \$ 4,598	4 \$ 5,887 32.27 8 \$ 6,644	33 \$ 4,491 21.46 37 \$ 4,789						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees	1 \$ 1,057 3.33	Years of 10-14 6 \$ 2,817 12.25	8 \$ 4,288 17.73	20-24 5 \$ 5,303 23.78	9 \$ 5,097 26.82	4 \$ 5,887 32.27	33 \$ 4,491 21.46						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service	1 \$ 1,057 3.33 3 \$ 2,467	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773	8 \$ 4,288 17.73 5 \$ 3,545	20-24 5 \$ 5,303 23.78 10 \$ 5,380	9 \$ 5,097 26.82 8 \$ 4,598	4 \$ 5,887 32.27 8 \$ 6,644	33 \$ 4,491 21.46 37 \$ 4,789						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018	1 \$ 1,057 3.33 3 \$ 2,467 6.92	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58	8 \$ 4,288 17.73 5 \$ 3,545 17.62	5 \$ 5,303 23.78 10 \$ 5,380 23.07	9 \$ 5,097 26.82 8 \$ 4,598 26.92	4 \$ 5,887 32.27 8 \$ 6,644 36.77	33 \$ 4,491 21.46 37 \$ 4,789 23.89						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018 Number of Retirees	1 \$ 1,057 3.33 3 \$ 2,467 6.92	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58	8 \$ 4,288 17.73 5 \$ 3,545 17.62	20-24 5 \$ 5,303 23.78 10 \$ 5,380 23.07	9 \$ 5,097 26.82 8 \$ 4,598 26.92	4 \$ 5,887 32.27 8 \$ 6,644 36.77	33 \$ 4,491 21.46 37 \$ 4,789 23.89						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018 Number of Retirees Average Monthly Benefits	1 \$ 1,057 3.33 3 \$ 2,467 6.92 4 \$ 2,274	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58 2 \$ 2,739	8 \$ 4,288 17.73 5 \$ 3,545 17.62 6 \$ 4,123	5 \$ 5,303 23.78 10 \$ 5,380 23.07	9 \$ 5,097 26.82 8 \$ 4,598 26.92 7 \$ 4,845	4 \$ 5,887 32.27 8 \$ 6,644 36.77	33 \$ 4,491 21.46 37 \$ 4,789 23.89 40 \$ 4,865						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018 Number of Retirees	1 \$ 1,057 3.33 3 \$ 2,467 6.92	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58	8 \$ 4,288 17.73 5 \$ 3,545 17.62	20-24 5 \$ 5,303 23.78 10 \$ 5,380 23.07	9 \$ 5,097 26.82 8 \$ 4,598 26.92	4 \$ 5,887 32.27 8 \$ 6,644 36.77	33 \$ 4,491 21.46 37 \$ 4,789 23.89						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018 Number of Retirees Average Monthly Benefits Average Years of Service	1 \$ 1,057 3.33 3 \$ 2,467 6.92 4 \$ 2,274	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58 2 \$ 2,739	8 \$ 4,288 17.73 5 \$ 3,545 17.62 6 \$ 4,123	5 \$ 5,303 23.78 10 \$ 5,380 23.07	9 \$ 5,097 26.82 8 \$ 4,598 26.92 7 \$ 4,845	4 \$ 5,887 32.27 8 \$ 6,644 36.77	33 \$ 4,491 21.46 37 \$ 4,789 23.89 40 \$ 4,865						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018 Number of Retirees Average Monthly Benefits Average Years of Service 2019	1 \$ 1,057 3.33 \$ 2,467 6.92 4 \$ 2,274 6.29	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58 2 \$ 2,739 10.54	8 \$ 4,288 17.73 5 \$ 3,545 17.62 6 \$ 4,123 17.81	20-24 5 \$ 5,303 23.78 10 \$ 5,380 23.07 11 \$ 5,452 23.17	9 \$ 5,097 26.82 8 \$ 4,598 26.92 7 \$ 4,845 26.80	4 \$ 5,887 32.27 8 \$ 6,644 36.77 10 \$ 6,141 35.81	33 \$ 4,491 21.46 37 \$ 4,789 23.89 40 \$ 4,865 23.84						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018 Number of Retirees Average Monthly Benefits Average Years of Service 2019 Number of Retirees	1 \$ 1,057 3.33 \$ 2,467 6.92 4 \$ 2,274 6.29	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58 2 \$ 2,739 10.54	8 \$ 4,288 17.73 5 \$ 3,545 17.62 6 \$ 4,123 17.81	20-24 5 \$ 5,303 23.78 10 \$ 5,380 23.07 11 \$ 5,452 23.17	9 \$ 5,097 26.82 8 \$ 4,598 26.92 7 \$ 4,845 26.80	4 \$ 5,887 32.27 8 \$ 6,644 36.77 10 \$ 6,141 35.81	33 \$ 4,491 21.46 37 \$ 4,789 23.89 40 \$ 4,865 23.84						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018 Number of Retirees Average Monthly Benefits Average Years of Service 2019 Number of Retirees Average Years of Service	1 \$ 1,057 3.33 \$ 2,467 6.92 4 \$ 2,274 6.29	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58 2 \$ 2,739 10.54 3 \$ 3,588	Credited Ser 15-19	20-24 5 \$ 5,303 23.78 10 \$ 5,380 23.07 11 \$ 5,452 23.17	9 \$ 5,097 26.82 8 \$ 4,598 26.92 7 \$ 4,845 26.80	4 \$ 5,887 32.27 8 \$ 6,644 36.77 10 \$ 6,141 35.81	33 \$ 4,491 21.46 37 \$ 4,789 23.89 40 \$ 4,865 23.84						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018 Number of Retirees Average Monthly Benefits Average Years of Service 2019 Number of Retirees	1 \$ 1,057 3.33 \$ 2,467 6.92 4 \$ 2,274 6.29	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58 2 \$ 2,739 10.54	8 \$ 4,288 17.73 5 \$ 3,545 17.62 6 \$ 4,123 17.81	20-24 5 \$ 5,303 23.78 10 \$ 5,380 23.07 11 \$ 5,452 23.17	9 \$ 5,097 26.82 8 \$ 4,598 26.92 7 \$ 4,845 26.80	4 \$ 5,887 32.27 8 \$ 6,644 36.77 10 \$ 6,141 35.81	33 \$ 4,491 21.46 37 \$ 4,789 23.89 40 \$ 4,865 23.84						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018 Number of Retirees Average Monthly Benefits Average Years of Service 2019 Number of Retirees Average Years of Service	1 \$ 1,057 3.33 \$ 2,467 6.92 4 \$ 2,274 6.29	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58 2 \$ 2,739 10.54 3 \$ 3,588	Credited Ser 15-19	20-24 5 \$ 5,303 23.78 10 \$ 5,380 23.07 11 \$ 5,452 23.17	9 \$ 5,097 26.82 8 \$ 4,598 26.92 7 \$ 4,845 26.80	4 \$ 5,887 32.27 8 \$ 6,644 36.77 10 \$ 6,141 35.81	33 \$ 4,491 21.46 37 \$ 4,789 23.89 40 \$ 4,865 23.84						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018 Number of Retirees Average Monthly Benefits Average Years of Service 2019 Number of Retirees Average Monthly Benefits Average Years of Service	1 \$ 1,057 3.33 \$ 2,467 6.92 4 \$ 2,274 6.29	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58 2 \$ 2,739 10.54 3 \$ 3,588	Credited Ser 15-19	20-24 5 \$ 5,303 23.78 10 \$ 5,380 23.07 11 \$ 5,452 23.17	9 \$ 5,097 26.82 8 \$ 4,598 26.92 7 \$ 4,845 26.80	4 \$ 5,887 32.27 8 \$ 6,644 36.77 10 \$ 6,141 35.81	33 \$ 4,491 21.46 37 \$ 4,789 23.89 40 \$ 4,865 23.84						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018 Number of Retirees Average Monthly Benefits Average Years of Service 2019 Number of Retirees Average Years of Service 2019 Number of Retirees Average Monthly Benefits Average Years of Service 2020 Number of Retirees	1 \$ 1,057 3.33 \$ 2,467 6.92 4 \$ 2,274 6.29 4 \$ 2,274 6.29	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58 2 \$ 2,739 10.54 3 \$ 3,588 11.92	Credited Ser 15-19	20-24 5 \$ 5,303 23.78 10 \$ 5,380 23.07 11 \$ 5,452 23.17 11 \$ 5,452 23.17	9 \$ 5,097 26.82 8 \$ 4,598 26.92 7 \$ 4,845 26.80	4 \$ 5,887 32.27 8 \$ 6,644 36.77 10 \$ 6,141 35.81 11 \$ 6,276 35.44	33 \$ 4,491 21.46 37 \$ 4,789 23.89 40 \$ 4,865 23.84 42 \$ 4,949 23.81						
Number of Retirees Average Monthly Benefits Average Years of Service 2017 Number of Retirees Average Monthly Benefits Average Years of Service 2018 Number of Retirees Average Monthly Benefits Average Years of Service 2019 Number of Retirees Average Years of Service 2019 Average Monthly Benefits Average Monthly Benefits Average Monthly Benefits Average Years of Service	1 \$ 1,057 3.33 \$ 2,467 6.92 4 \$ 2,274 6.29	Years of 10-14 6 \$ 2,817 12.25 3 \$ 2,773 11.58 2 \$ 2,739 10.54 3 \$ 3,588 11.92	Credited Ser 15-19	20-24 5 \$ 5,303 23.78 10 \$ 5,380 23.07 11 \$ 5,452 23.17 11 \$ 5,452 23.17	9 \$ 5,097 26.82 8 \$ 4,598 26.92 7 \$ 4,845 26.80 7	4 \$ 5,887 32.27 8 \$ 6,644 36.77 10 \$ 6,141 35.81 11 \$ 6,276 35.44	33 \$ 4,491 21.46 37 \$ 4,789 23.89 40 \$ 4,865 23.84 42 \$ 4,949 23.81						

Schedule of Average Benefit Payments - PERS As of June 30 Law Enforcement with Prior Main Service⁽¹⁾ Years of Credited Service

tal
·u.
71
653
21.35
82
828
21.65
94
896
21.63
104
852
20.75
113
830
20.46
38.

⁽¹⁾ 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														
	_ <	< 10	10	0-14	15	5-19	2	0-24	25	-29	>	=30	Т	otal	
2016 Number of Retirees Average Monthly Benefits Average Years of Service	\$	2 544 2.29	\$	0 - 0.00	\$	0 - 0.00	\$	0 - 0.00	\$	0 - 0.00	\$	0 - 0.00	\$	2 544 2.29	
2017 Number of Retirees Average Monthly Benefits Average Years of Service	\$	4 390 4.12		1 1,204 12.58	\$	0 - 0.00	\$	0 - 0.00		1 ,126 26.17	\$	0 - 0.00	\$	6 981 9.21	
2018 Number of Retirees Average Monthly Benefits Average Years of Service	\$	5 401 4.01		1 1,204 12.58	\$	0 - 0.00	\$	0 - 0.00		1 ,126 26.17	\$	0 - 0.00	\$	7 905 8.40	
2019 Number of Retirees Average Monthly Benefits Average Years of Service	\$	7 410 4.44		1 1,204 12.58	\$	0 - 0.00	\$	0 - 0.00		1 ,126 26.17	\$	0 - 0.00	\$	9 800 7.76	
2020 Number of Retirees Average Monthly Benefits Average Years of Service	\$	8 421 4.79		1 1,204 12.58	\$	0 - 0.00	\$	0 - 0.00		2 ,345 27.05	\$	0 - 0.00	\$	11 842 9.54	

Schedule of Average Benefit Payments - PERS As of June 30 HPRS Years of Credited Service

Years of Credited Service							
	< 10	10-14	15-19	20-24	25-29	>=30	Total
2016							
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
2017							
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
2018							
Number of Retirees	0	2	4	5	65	20	96
Average Monthly Benefits	\$ -	\$ 1,481	\$ 2,388	\$ 2,923	\$ 3,862	\$ 4,366	\$ 3,807
Average Years of Service	0.00	11.75	17.10	22.75	27.89	31.36	27.56
2019							
Number of Retirees	1	3	4	6	68	23	105
Average Monthly Benefits	\$ 1,456	\$ 1,765	\$ 2,388	\$ 3,351	\$ 3,917	\$ 4,854	\$ 3,947
Average Years of Service	2.25	11.69	17.10	22.96	27.93	31.33	27.27
2020							
Number of Retirees	1	3	4	6	70	23	107
Average Monthly Benefits	\$ 1,456	\$ 1,765	\$ 2,388	\$ 3,351	\$ 4,039	\$ 4,854	\$ 4,026
Average Years of Service	2.25	11.69	17.10	22.96	27.99	31.33	27.32

Schedule of Average Benefit Payments - PERS As of June 30 Job Service Plan

	Retirement <u>Plan</u>	Travelers <u>Annuitants</u>	<u>Total</u>
2016	440	0.4	000
Number of Retirees	142	64	206
Average Monthly Benefits	\$2,360	\$763	\$1,864
2017			
Number of Retirees	139	60	199
Average Monthly Benefits	\$2,382	\$770	\$1,896
2018 Number of Retirees Average Monthly Benefits	140 \$2,420	56 \$791	196 \$1,955
2019			
Number of Retirees	135	50	185
Average Monthly Benefits	\$2,510	\$853	\$20,662
2020 Number of Retirees	133	48	181
Average Monthly Benefits	\$2,515	\$880	\$2,081

Stage Agency Employers

Adjutant General ND National Guard

Aeronautics Commission Attorney General's Office

Bank Of North Dakota

Beef Commission

Bismarck State College

Career & Technical Education

Central Services

Commission on Legal Councel for Indigents

Dairy Promotion Commission

Department Of Commerce

Department Of Corrections And Rehabilitation Department Of Corrections Transitional Services

Department of Environmental Quality

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 - DOCR

Lake Region State College

Land Department

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 Medicine

ND Board Of Nursing

ND Board Of Pharmacy

ND Corn Utilization Council

ND Council On The Arts

ND Department Of Health

ND Department Of Labor

ND Ethics Commission

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

University Of North Dakota

Valley City State University

Veterans Affairs Department

Water Commission

Williston State College

Workforce Safety & Insurance

Total State Employers = 97

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 Golden Valley 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

Stark County Steele County

> Stutsman County **Towner County**

Ramsey County

Ransom County

Renville County

Richland County

Rolette County

Sargent County

Sheridan County

Slope County

Traill County

Walsh County Ward County

Wells County Williams County

Total County Employers = 51

School District Employers

Anamoose Public School District #14

Apple Creek Flementary 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

Central Regional Education Association

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

Fairmount Public School

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 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

Oberon Public Schools #16

Oliver-Mercer Special Education Unit

Park River Area School District

Peace Garden Special Services

Pembina Special Education Cooperative

Pingree-Buchanan School District

Richland School District # 44

Rolette Public School

Roughrider Education Services Program (RESP)

Rugby Public School District #5

Rural Cass Special Education Unit

Sargent Central Public School District #6

Sawyer Public School

Sheyenne Valley Career And Tech Center

Sheyenne Valley Special Education Unit

Solen Public School Dist #3

Souris Valley Special Services South Central Prairie Special Edudcation Unit

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

Williams County School District #8 Williston Public School #1

Wilmac Multidistrict Special Education Unit

Wilton Public School District Yellowstone School District # 14

Zeeland Public Schools

Total School District Employers = 129

City Employers

City of Alexander City of Glenburn City of Ashley City of Grafton City of Beach City of Grand Forks City of Belfield City of Granville City of Berthold City of Grenora City of Beulah City of Gwinner City of Halliday City of Bottineau City of Bowman City of Hankinson City of Harvey City of Burlington City of Carrington City of Harwood City of Hatton City of Carson City of Hettinger City of Cavalier City of Cooperstown City of Jamestown City of Crosby City of Kenmare City of Devils Lake City of Killdeer City of Dickinson City of Kindred City of Dodge City of Kulm City of Drayton City of Lakota City of Elgin City of Lamoure City of Ellendale City of Larimore City of Emerado City of Lidgerwood City of Fargo City of Lincoln City of Fessenden City of Linton City of Finley City of Lisbon

City of Mapleton City of McClusky City of Mcville City of Medora City of Michigan City of Minot City of Minto City of Mohall City of Mott City of Napoleon City of Neche City of New England City of New Leipzig City of New Rockford City of New Salem City of New Town City of Northwood City of Oakes City of Park River City of Pembina City of Powers Lake City of Ray City of Regent City of Rhame

City of Mandan

City of Richardton City of Rolla City of Rugby City of Sawyer City of Scranton City of Sherwood City of St John City of Stanley City of Surrey City of Thompson City of Tioga City of Towner City of Underwood City of Velva City of Wahpeton City of Walhalla City of Watford City City of West Fargo City of Westhope City of Williston City of Wilton City of Wishek City of Zeeland

Total City Employers = 98

Other Political Subdivision Employers

Agassiz Water Users District Barnes County Soil Conservation District Bismarck Rural Fire Protection

Bottineau County Water Resource District

Bowman City Park Board

City of Garrison

Burleigh County Council On Aging

Burleigh County Soil Conservation District

Carnegie Regional Library

Cass County Soil Conservation District Cass County Water Resource District

Cavalier County Health District

Cavalier County Job Development Authority

Central Plains Water District Central Valley Health Unit

City of Bottineau Park Board City County Health District

Consolidated Waste Ltd Crosby Park District

Closby Park District

Custer Health Unit

Devils Lake Basin Joint Water Resource Board

Devils Lake Park Board

Dickey County Health District Dunseith Community Nursing Home

Emmons County Public Health

Emmons County Soil Conservation District

Fargo Park District

First District Health

Foster County Soil Conservation District Garrison Diversion Conservancy District **Grafton Park District**

City of Maddock

Grand Forks County Water Resource District

Grand Forks Park District

Grand Forks Public Library

Grand Forks-E Grand Forks Metropolitan Planning

Great Plains Housing Authority Greater Ramsey Water District

Griggs County Public Library

James River Soil Conservation District

James River Valley Library System
Jamestown Parks And Recreation District

Jamestown Regional Airport Kidder County District Health Unit

Lake Metigoshe Recreation Service District

Lake Region District Health Unit

Logan County Soil Conservation District

McIntosh County Housing Authority McIntosh District Health Unit

Mercer County Soil Conservation District

Minot Park District

Minot Rural Fire Department

Nelson-Griggs District Health Unit North Central Soil Conservation District

North Dakota Firefighters Association Park District - City of New Rockford

R & T Water Supply Commerce Authority Ramsey County Housing Authority

Ramsey County Soil Conservation District Ramsey County Water Resource District

Ransom County Soil Cons Dist

Red River Joint Water Resource District

Rolette County Public Health

Rolette County Soil Conservation District

Sargent County District Health Unit

Southeast Region Career & Technology Center

Southest Water Users District

Southwest Water Authority Southwestern District Health Unit

Stark & Billings Soil Conservation District

Towner County Public Health Unit

Traill County Water Resource District

Traill District Health Unit

Tri-Cities Joint Job Development Authority

Upper Missouri Health Unit Valley City Park District

Wahpeton Park Board

Walsh County Health District

Walsh County Housing Authority

Walsh County Water Resource District

Ward County Water Resource District

Watford City Park District

Wells County Dist Health Unit

West Fargo Park District

Western Area Water Supply Authority

Williams County Soil Conservation District

Williston Housing Authority

Williston Rural Fire Protection District #1

Total Other Political Subdivision Employers = 86

Principle Participating Employers

		2020			2011	
Participating Employer	Covered Employees	Rank	% of Total System	Covered Employees	Rank	% of Total System
Department of Human Services	1,296	1	5.79%	1,272	1	6.27%
Department of Transportation	912	2	4.08%	1,007	3	4.97%
University of North Dakota	861	3	3.85%	1,148	2	5.66%
Bismarck Public Schools	839	4	3.75%	708	5	3.49%
Fargo Public Schools	773	5	3.46%	582	6	2.87%
North Dakota State University	747	6	3.34%	848	4	4.18%
West Fargo Public School #6	680	7	3.04%	N/A	N/A	N/A
Minot Public School District #1	602	8	2.69%	485	7	2.39%
City of Fargo	579	9	2.59%	N/A	N/A	N/A
City of Grand Forks	422	10	1.89%	N/A	N/A	N/A
Jamestown State Hospital	N/A	N/A	N/A	447	8	2.20%
Developmental Center	N/A	N/A	N/A	398	9	1.96%
Cass County	N/A	N/A	N/A	381	10	1.88%
Remaining Employers	14,661		65.52%	12,885		63.25%
Total Covered Employees*	22,372		100.00%	20,372		100.00%

^{*}Total covered employees represents the number of employees in a contributing status as of June 30, 2020 and June 30, 2011 respectively in the Main retirement plan

Deferred Compensation Program Schedule of Assets By Provider

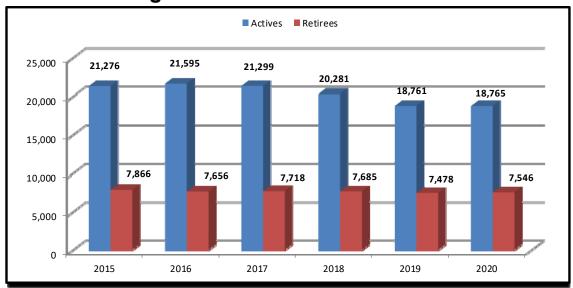
	6/30/16	6/30/17	6/30/18	6/30/19	6/30/20
AIG VALIC	\$9,113,556	\$9,982,842	\$9,820,173	\$10,053,565	\$10,282,875
American Trust Center	11,386,469	11,857,349	12,898,604	14,027,844	14,177,650
AXA Equitable	17,112,366	17,201,441	17,781,744	17,108,369	16,234,828
Bank of North Dakota	5,723,463	5,590,301	5,498,920	5,407,961	5,420,148
Commonwealth Annuity & Life Insurance Co.					
(Formerly Chase Financial/Kemper)	8,601,614	9,353,331	8,726,263	8,324,323	7,821,654
Mass Mutual (formerly Hartford)	48,584,792	56,773,497	59,851,708	64,220,246	64,914,891
ING (Formerly Aetna)	1,848,403	1,963,666	2,116,468	2,229,557	2,135,826
Jackson National Life	5,114,883	6,467,238	6,987,381	5,841,212	5,682,128
Kansas City Life (formerly Sunset Life)	188,193	203,843	50,314	0	0
Lincoln National	5,711,133	6,196,000	6,836,529	6,214,835	6,202,271
NDPERS Companion Plan ⁽¹⁾	77,545,379	97,918,662	112,605,791	126,192,471	139,277,186
Nationwide Life Insurance	14,553,736	16,880,532	19,154,725	20,866,715	22,279,890
New York Life ⁽¹⁾	327,802	224,176	220,746	200,584	0
Symetra (Formerly Safeco)	155,178	168,029	122,177	125,774	124,970
Waddell & Reed Financial Services	8,425,708	9,252,315	9,802,256	10,800,789	11,802,831
Total	\$214,392,675	\$250,033,223	\$272,473,798	\$291,614,245	\$306,357,148

⁽¹⁾ 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, 2020 and June 30, 2019 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

