NORTH DAKOTA RETIREE HEALTH INSURANCE CREDIT FUND

ACTUARIAL VALUATION AND REVIEW AS OF JULY 1, 2015

Segal Consulting

Segal Consulting

5990 Greenwood Plaza Blvd, Suite 118 Greenwood Village, CO 80111
T 303.714.9900 www.segalco.com

October 20, 2015

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

Members of the Board:

We are a pleased to submit this Actuarial Valuation and Review as of July 1, 2015 for the North Dakota Public Employees Retirement System Retiree Health Insurance Credit (RHIC) Fund. It summarizes the actuarial data used in the valuation, establishes the actuarially determined contribution requirements for the 2015-2016 plan year, and analyzes the preceding year's experience.

The census information on which our calculations are based and the financial information were provided by the Retirement Office staff. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Tammy F. Dixon, FSA, MAAA, Enrolled Actuary.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

We look forward to meeting with you to review this report and to answering any questions you may have.

Sincerely,

Brad Ramirez, FSA, MAAA, FCA, EA Vice President & Consulting Actuary	Tammy F. Dixon, FSA, MAAA, EA Vice President & Actuary
Laura L. Mitchell, MAAA, EA Vice President & Consulting Actuary	

cc: Sparb Collins

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Table of Contents

Introduction

This report has been prepared by Segal Consulting to present a valuation of the North Dakota Public Employees Retirement System Retiree Health Insurance Credit Fund as of July 1, 2015. The valuation was performed to determine whether the assets and statutory contributions are anticipated to be sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

1. The present provisions of the North Dakota Public Employees Retirement System Retiree Health Insurance Credit Fund;
2. The characteristics of covered active members, and pensioners and beneficiaries as of July 1, 2015;
3. The assets of the Fund as of June 30, 2015; and
4. Economic assumptions regarding future salary increases and investment earnings and demographic rates of participation, termination, retirement, disability, death, etc.

The purpose of the actuarial valuation is to determine the contribution sufficient to meet the long-term obligations to the members covered by the Fund in accordance with the benefit provisions of the North Dakota Public Employees Retirement System Retiree Health Insurance Credit Fund. The measurements in this valuation are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation.

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

Highlights

- The present rate of contributions is sufficient to meet the actuarially determined requirement for 2015-2016, based upon the actuarial assumptions and financing objectives approved by the Board.

- The actuarial contribution requirement for 2015-2016 is $7.5 million, or 0.72% of payroll. The statutory rate of 1.14% of payroll is greater than the actuarially determined rate by 0.42% of payroll. Last year, the statutory rate exceeded the actuarially determined rate of 0.64% by 0.50% of payroll.

- The largest factor in the change in the actuarial contribution requirement was the plan change, which no longer requires enrollment in the NDPERS health insurance plan. As a result, we are now assuming 100% of eligible participants will receive benefits.

- Based on the results of the Actuarial Experience study completed in May, 2015, the Board approved several changes to the actuarial assumptions. A description of these changes is shown in Exhibits II and III.

- The return on the market value of assets for 2014-2015 was 2.93%, and was 15.94% for the preceding year. The return on the actuarial value of assets for 2014-2015 was 8.91% compared to the investment return assumption of 8.00%. As a result, the Fund experienced an investment gain on an actuarial basis of approximately $0.7 million.

- A comparison of this year's funded ratio to the prior year follows:

	July 1, 2015	July 1, 2014
Actuarial Value of Assets	$89,433,998	$77,925,234
Actuarial Accrued Liability	128,940,013	116,633,623
Funded Ratio	69.4%	66.8%

- The unrecognized appreciation represents about 9.8% of the market value of assets. A characteristic of the asset smoothing method used by PERS is that the actuarial value of assets will tend to lag behind the market value of assets. This unrecognized appreciation will be recognized over the next five years. The potential impact may be illustrated as follows:

  - If the deferred appreciation were recognized immediately in the actuarial value of assets, the funded percentage would increase from 69.4% to 76.9%.

  - If the deferred appreciation were recognized immediately in the actuarial value of assets, the actuarial contribution requirement would decrease from 0.72% of payroll to 0.64% of payroll.

- Members of the optional defined contribution plan are also eligible to participate in the Retiree Health Insurance Credit Fund. Based on the member data provided to us, we included 231 of these active members in this actuarial valuation.

- The actuarial valuation report as of July 1, 2015 is based on financial and demographic information as of that date. Changes subsequent to that date are not reflected and could affect future actuarial costs of the Plan. We are prepared to work with the Board to analyze the effects of any subsequent development.

Member Characteristics

Nonretired Members

Detailed information for 23,237 active members as of July 1, 2015 was provided by the Retirement Office. The data included name, sex, date of birth, date of hire, months of service, and annual earnings.

Age, service, and compensation data are summarized below:

Number of active members	23,237
Average age	46.3
Average years of service	9.7
Projected annual compensation	$1,052,657,242
Average projected annual compensation	$45,301

Distributions of the active members by age, and service as of July 1, 2015 are presented in Table 1.

Retired Members & Beneficiaries

Information regarding the Fund's pensioners and beneficiaries shows that benefits were being paid to 5,212 individuals on July 1, 2015. The average benefit paid to these retired members and beneficiaries is $121 per month. Their average age is 73.3 years. Distributions of the retired members and beneficiaries are presented in Table 2 by monthly amount and current age.

TABLE 1

Census of Members in Active Service on July 1, 2015
by Nearest Age and Years of Employment

		Years of Employment							
Nearest Age	**Total**	**Under 5**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35 & Over**
Total	23,237	9,924	4,770	2,791	2,187	1,394	994	678	499
Under 20	32	21	11	0	0	0	0	0	0
20-24	733	699	31	3	0	0	0	0	0
25-29	1,963	1,726	213	19	5	0	0	0	0
30-34	2,322	1,553	658	98	11	2	0	0	0
35-39	2,518	1,348	647	404	112	7	0	0	0
40-44	2,507	1,088	621	371	349	66	11	1	0
45-49	2,702	1,002	640	365	310	268	112	5	0
50-54	3,306	984	619	509	407	327	276	173	11
55-59	3,557	856	657	482	485	334	302	275	166
60-64	2,599	457	466	370	366	297	233	171	239
65-69	752	141	149	118	116	78	50	39	61
70-74	174	38	40	34	16	11	9	8	18
75 & Over	72	11	18	18	10	4	1	6	4

TABLE 2

Distribution of Retired Members & Beneficiaries Receiving Benefits on July 1, 2015
by Nearest Age and Monthly Amount

		Monthly Amount						
Nearest Age	**Total**	**Under $30**	**$30-$59**	**$60-$89**	**$90-$119**	**$120-$149**	**$150-$179**	**$180 & Over**
Total	5,212	212	628	848	816	1,102	873	733
Under 50	5	2	1	2	0	0	0	0
50-54	26	2	2	3	1	3	12	3
55-59	130	7	11	4	5	26	61	16
60-64	548	33	47	34	43	139	159	93
65-69	1,320	61	150	173	191	296	224	225
70-74	1,052	28	107	159	219	253	138	148
75-79	888	33	130	176	148	169	127	105
80-84	639	28	86	144	104	128	79	70
85 & Over	604	18	94	153	105	88	73	73

Assets

Market Value of Assets

Draft financial information was provided by the North Dakota Public Employees Retirement System.

As shown in the draft financial statements as of June 30, 2015, the market value of net assets of the North Dakota Retiree Health Insurance Credit Fund was $99,142,050, an increase of $7.1 million compared to $92,013,709 a year earlier. This year's market value represents an increase of 7.7% over the market value one year earlier.

The rate of return on the market value basis was 2.93% for the year ended June 30, 2015.

Table 5 presents a summary statement of assets for the past two years.

Actuarial Value of Assets

The actuarial value of assets is determined as follows:

> Market appreciation and depreciation are spread over five years beginning with the year of occurrence. Interest and dividends are recognized immediately. This procedure results in recognition of all changes in market value over five years. A characteristic of this asset valuation method is that, over time, it is more likely than not to produce an actuarial value of assets that is less than the market value of assets, if the investment return attributable to net interest and dividends is less than the assumed rate of return.

The actuarial value of assets as of June 30, 2015 was $89,433,998 compared to $77,925,234 as of June 30, 2014. On an actuarial basis, the rate of return was 8.91% for the year ended June 30, 2015.

Table 3 shows that there is approximately $9.7 million of deferred appreciation that will be recognized in future years. For the prior year, there was approximately $14.1 million of appreciation to be recognized in future years.

Table 4 presents a statement of income and disbursements on an actuarial value basis for the past two years.

TABLE 3

Determination of Actuarial Value of Assets
as of June 30, 2015 and 2014

		June 30, 2015		June 30, 2014	
Year Ending	**Market Value Appreciation (Depreciation)**	**Percent Deferred**	**Amount Deferred**	**Percent Deferred**	**Amount Deferred**
June 30, 2011	$8,481,511	0%	$0	20%	$1,696,302
June 30, 2012	163,508	20%	32,702	40%	65,403
June 30, 2013	6,384,010	40%	2,553,604	60%	3,830,406
June 30, 2014	10,620,455	60%	6,372,273	80%	8,496,363
June 30, 2015	936,842	80%	749,474	N/A	N/A
(a) Total Deferred as of Valuation Date			$9,708,052		$14,088,474
(b) Total Appreciation (Depreciation) for last five Plan Years			26,586,326		30,577,587
(c) Write-Up/(Down) Amount for the year - equals 20% of (b)			5,317,265		6,115,517
			June 30, 2015		June 30, 2014
Market Value of Assets			$99,142,050		$92,013,709
Less: Deferred Appreciation (Depreciation)			9,708,052		14,088,474
Actuarial Value of Assets			$89,433,998		$77,925,235
Actuarial Value as a Percentage of Market Value			90.21%		84.69%

TABLE 4

Summary Statement of Income and Disbursements
(based on unaudited financial statements)
on an Actuarial Value Basis

	Year Ended June 30, 2015	**Year Ended June 30, 2014**
Contribution Income:		
Employer Contributions	$11,478,599	$10,709,787
Member Contributions	5,782,499	6,274,648
Service Credit Repurchases	347,238	368,859
Total Contribution Income	$17,608,336	$17,353,294
Less: Administrative Expenses	(217,989)	(201,465)
Net Contribution Income	$17,390,347	$17,151,829
Investment Income:		
Interest and Dividends	$2,105,589	$1,984,656
Less: Investment Expenses	(281,478)	(238,703)
Net Interest and Dividends	$1,824,111	$1,745,953
Write-Up/(Down) of Assets	5,317,265	6,115,517
Net Investment Income	$7,141,376	$7,861,470
Total Income Available for Benefit Payments	$24,531,723	$25,013,299
Benefit Payments:		
Health Credit Benefits	$(5,769,874)	$(6,259,110)
Refunds	(6,994)	(2,992)
Health Premium Paid	(7,246,091)	(6,798,427)
Total Benefit Payments	$(13,022,959)	$(13,060,529)
Change in Reserve for Future Benefit Payments	$11,508,764	$11,952,770
Actuarial Value of Assets, Start of Year	77,925,234	65,972,463
Actuarial Value of Assets, End of Year	$89,433,998	$77,925,234

TABLE 5

Summary Statement of Assets
(based on unaudited financial statements)

	Year Ended June 30, 2015		Year Ended June 30, 2014	
Cash		$286,999		$50,169
Receivables:				
Contribution receivable	859,924		$783,903	
Interest receivable	87,940		85,205	
Due from fiduciary funds	14,004		9,189	
Due from proprietary funds	360,319		417,672	
Total receivables		1,322,187		1,295,969
Investments:				
Domestic equities	$45,215,819		$42,578,295	
International equities	13,908,709		12,534,457	
Domestic fixed income	38,458,592		35,162,409	
Total investments		97,583,120		90,275,161
Prepaid health premiums		0		580,193
Software (net of amortization)		196,448		233,311
Total assets		$99,388,754		92,434,803
Liabilities:				
Accounts payable	$(77,357)		$(69,151)	
Due to fiduciary funds	(169,219)		(344,558)	
Due to proprietary funds	(128)		(7,385)	
Total liabilities		(246,704)		(421,094)
Net assets at market value		$99,142,050		$92,013,709
Net assets at actuarial value		$89,433,998		$77,925,234

Results of Actuarial Valuation

The contribution requirement consists of the normal cost, administrative expense allowance, plus the cost of amortizing the unfunded actuarial accrued liability over a scheduled period of years. The Board has adopted a policy with regard to the unfunded liability of determining cost using an amortization period of 40 years beginning July 1, 1990 (15 years remaining as of July 1, 2015). Amortization payments are based on a level percent of payroll. The calculated employer contribution requirements on this basis for fiscal year 2015-2016 are shown below as a dollar amount and as a percentage of the total compensation of active employees.

The components of the actuarial contribution requirement are as follows:

	Amount for 2015 – 2016	Percentage of Payroll	Cost per Active Employee
Normal cost	$ 3,905,835	0.37%	$168
Administrative expense allowance	225,619	0.02	10
Amortization payment	3,412,289	0.33	147
Total employer contribution requirement	$7,543,743	0.72%	$325

Covered payroll is $1,052,657,242 for 23,237 active employees.

The statutory contribution rate is 1.14% of payroll. Hence the plan has a margin of 0.42% of payroll.

If deferred asset appreciation were taken into account on the valuation date, the margin would be 0.50% of payroll.

A reconciliation of the change since the previous actuarial valuation follows:

	Percentage of Payroll
Employer contribution requirement as of July 1, 2014	0.64%
Investment gain (includes gains due to contributions)	(0.10)
Other plan experience during the year	0.05
Change in assumptions	(0.02)
Change in plan (100% participation)	0.15
Employer contribution requirement as of July 1, 2015	0.72%

Funding Status

The calculation of funded ratios provides one measure of the progress of funding a plan. The funded ratio is the percentage of plan liabilities covered by plan assets. High ratios indicate a well-funded plan with assets sufficient to cover the plan's liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors. This ratio can be calculated using different measures of the plan's liabilities.

Funding Basis – Actuarial Accrued Liability

The funded ratio shown below is based on assets and liabilities developed in the actuarial valuation. It uses the actuarial accrued liability developed by the Projected Unit Credit Actuarial Cost Method and the actuarial value of assets.

Historical Results

The funded ratio for the past ten years is shown below. The progress of this ratio reveals overall improvement in the plan's funded condition.

As of July 1	Actuarial Accrued Liability	Actuarial Value of Assets	Funded Ratio
2006	$82,632,628	$34,020,413	41.2%
2007	85,342,012	38,881,121	45.6
2008	87,592,818	42,543,140	48.6
2009	102,191,552	44,829,007	43.9
2010	102,805,439	48,723,475	47.4
2011	108,384,942	53,730,426	49.6
2012	112,373,231	58,307,298	51.9
2013	114,052,953	65,972,463	57.8
2014	116,633,623	77,925,234	66.8
2015	128,940,013	89,433,998	69.4

Actuarial Valuation Certificate

October 20, 2015

NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE HEALTH INSURANCE CREDIT FUND

This is to certify that Segal Consulting ("Segal") has prepared an Actuarial Valuation of the Fund as of July 1, 2015 in accordance with generally accepted actuarial principles and practices. It has been prepared at the request of the Board of Trustees to assist in administering the Fund and meeting filing requirements of federal government agencies. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Trustees and may only be provided to other parties in its entirety.

The measurements shown in this actuarial valuation may not be applicable for other purposes. 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.

The valuation was based on information supplied by the Retirement Office with respect to member and financial data. Segal Consulting does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Certain assumptions including interest rates, mortality tables and others identified in the report are prescribed by the Board and in our opinion are reasonably related to the experience of the plan and the expectations for the plan. The Board is also responsible for selecting the actuarially required contribution, actuarial cost method and asset valuation method.

We are available to provide further information or to answer any questions regarding the report.

Brad Ramirez, FSA, MAAA, FCA, EA
Vice President & Consulting Actuary

Tammy F. Dixon, FSA, MAAA, EA
Vice President & Actuary

Laura L. Mitchell, MAAA, EA
Vice President & Consulting Actuary

EXHIBIT I

ACTUARIAL VALUATION RESULTS

1.	Actuarial accrued liability on July 1, 2015:		
	a.	Active members	$62,632,863
	b.	Retired members and beneficiaries	66,307,150
	c.	Total	$128,940,013
2.	Assets at actuarial value ($99,142,050 at market value)		89,433,998
3.	Unfunded actuarial accrued liability - equals (1) minus (2)		39,506,015
4.	Normal cost for ensuing year*		3,905,835
5.	Amortization payment - equals 15-year amortization of item (3) as a level percent of total payroll*		3,412,289
6.	Administrative expenses		225,619
7.	Total cost for ensuing year - equals (4) plus (5) plus (6)		7,543,743
8.	Total payroll of covered members		1,052,657,242
9.	Total employer cost as percentage of payroll - equals (7) divided by (8)		0.72%

* Adjusted for interest to recognize payments throughout the year.

EXHIBIT II

ACTUARIAL ASSUMPTIONS AND COST METHODS

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in our report titled Experience Review: July 2009 – June 2014 completed in May 2015. Current data is reviewed in conjunction with each annual valuation.

1. Mortality Tables:

Healthy: RP-2000 Combined Healthy, setback 2 years for males and 3 years for females, projected generationally using SSA 2014 Intermediate Cost scale from 2014.

Disabled: RP-2000 Disabled Mortality Table set back one year for males (no setback for females) multiplied by 125%.

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

Sample healthy rates for the base table, including setback, are as follows:

Age	Male	Female
20	0.03%	0.02%
25	0.04	0.02
30	0.04	0.02
35	0.06	0.04
40	0.10	0.06
45	0.13	0.09
50	0.19	0.13
55	0.29	0.20
60	0.53	0.35

2. Disability Incidence Rates:

Sample rates are as follows:

Age	Male	Female
20	0.01%	0.01%
25	0.02	0.01
30	0.02	0.01
35	0.03	0.01
40	0.04	0.02
45	0.07	0.04
50	0.12	0.06
55	0.20	0.10
60	0.33	0.16

EXHIBIT II (continued)

3. <u>Withdrawal Rates:</u>

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 DC 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.

Select and ultimate rates are used for active members of the Main and DC Systems. During the select period (first five years of active employment), rates vary by entry age and year of employment. During the ultimate period (active employment after the first five years), rates vary by attained age.

	Select Period				
	Year of Employment				
Age	**0**	**1**	**2**	**3**	**4**
29 & Under	22%	18%	16%	14%	14%
30 - 39	16	14	12	12	11
40 & Over	12	10	10	8	7

Ultimate Period	
Age	**Rate**
20 - 24	8.8%
25 - 29	8.8
30 - 34	5.5
35 - 39	4.7
40 - 44	3.9
45 - 49	3.7
50 - 54	3.4
55 - 59	0.1
60 & Over	0.2

Withdrawal rates end upon eligibility for early retirement.

4. Retirement Rates for Active Members:

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 Main System are detailed below. The retirement rates applied to the active members of the other groups are detailed in the valuation report for their retirement system.

Annual rates for the Main and DC Systems are as follows:

Age	Early Retirement	Unreduced Retirements*
50		30%
51-54		10
55	1%	10
56-59	1	8
60	2	8
61	5	15
62-63	10	30
64	10	20
65		30
66		20
67-74		15
75		100

**Age 65 or Rule of 85*

5. Interest Rate:

8.00% per annum, net of investment expenses.

6. Annual Administrative Expenses:

Prior year expenses, adjusted for inflation

7. Payroll Growth:

4.50% per annum.

8. Inflation:

3.50% per annum.

9. Participation Rates:

All members are assumed to participate.

EXHIBIT II (continued)

10. **Benefit Election:**

Main and DC Systems and Law Enforcement:

50% of participants are assumed to elect the Single Life Annuity with 120 month guarantee, 45% are assumed to elect the 55% Contingent Annuitant Option, and 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.

11. **Percent Married and Age of Spouse:**

Main, DC Systems and Law Enforcement:

At retirement or death, 75% of active members are assumed to have spouses. Males are assumed to be three years older than their female spouses.

Judges and Highway Patrol:

At retirement or death, 100% of members are assumed to have spouses. Males are assumed to be three years older than their female spouses.

All spouses are assumed to be the opposite gender as the participant. The relatively low rate of same-gender spouses is not actuarially significant at this time.

12. **Actuarial Cost Method:**

Projected Unit Credit Actuarial Cost Method. Unfunded actuarial accrued liability amortized in installments increasing by the payroll growth assumption each year over a fixed period that ends on June 30, 2030.

13. **Actuarial Value of Assets:**

Adjusted market value that immediately recognizes interest and dividends. The procedure recognizes 20% of each year's total appreciation (depreciation) beginning with the year of occurrence. After five years, the appreciation (depreciation) is fully recognized. A characteristic of this asset valuation method is that, over time, it is more likely than not to produce an actuarial value of assets that is less than the market value of assets, if the investment return attributable to net interest and dividends is less than the assumed rate of return.

EXHIBIT III

CHANGES IN ACTUARIAL ASSUMPTIONS AND COST METHODS

There was no change in the cost method, based on the results of the Actuarial Experience Study completed in May, 2015, the Board approved changes to the following actuarial assumptions. Previously, these assumptions were as follows:

1. <u>Mortality Tables:</u>

<u>Active PERS and HPRS members and retirees:</u>

Healthy: RP-2000 Combined Healthy, setback 3 years.

Disabled: RP-2000 Disabled Retiree Mortality Table, set back one year for males (not set back for females).

<u>Active Highway Patrol members:</u>

Healthy: RP-2000 Combined Healthy Mortality Table, set back one year.

Disabled: RP-2000 Disabled Retiree Mortality Table, set back one year for males (not set back for females).

2. <u>Disability Incidence Rates:</u>

Different disability incidence rates were applied to the active members of PERS and the Highway Patrol. The disability rates applied to the Highway Patrol were described in the valuation report for their retirement system.

Sample rates for PERS were:

Age	Males	Females
20	0.02%	0.01%
30	0.04	0.02
40	0.07	0.04
50	0.20	0.12
60	0.54	0.33

4. <u>Retirement Rates for Active Members:</u>

Different retirement rates were applied to the active members of the Main and DC Systems, Highway Patrol, Judges, National Guard and Law Enforcement. Prior retirement rates for the Main System are detailed on the next page. The retirement rates applied to the active members of the other groups were detailed in the valuation report for their retirement system.

EXHIBIT III (continued)

Annual rates for the Main and DC Systems were as follows:

Age	Unreduced*	Early
51-54	8%	0%
55	8	2
56-59	10	2
60	10	4
61	20	10
62	35	20
63	25	15
64	30	10
65	30	
66-74	20	
75	100	

**Age 65 or Rule of 85*

6. <u>Annual Administrative Expenses:</u>

$97,000.

9. <u>Participation Rates:</u>

The percentage of eligible members electing coverage under the health insurance program and receiving the stipend varied with years of service. Rates were as follows:

Main System and and Law Enforcement		Judges and Highway Patrol	
Years of Service	Participation Rate	Years of Service	Participation Rate
3 - 4	30%	5 - 9	50%
5 - 9	50%	10 - 14	65%
10 - 14	65%	15 - 19	80%
15 - 19	80%	20 - 24	85%
20 - 24	85%	25 or more	90%
25 or more	90%		

10. Benefit Election:

Main and DC Systems, National Guard and Law Enforcement:

60% of male retirees and 25% of female retirees were assumed to elect a 100% joint and survivor form of pension from the retirement system in which they participated.

Valued without reduction for optional form of payment.

Judges:

100% of retirees were assumed to elect a 100% joint and survivor form of pension from the retirement system.

Valued without reduction for optional form of payment.

Highway Patrol:

90% of retirees were assumed to elect a 100% joint and survivor form of pension from the retirement system.

Valued without reduction for optional form of payment.

11. Marital Status:

Main and DC Systems, National Guard and Law Enforcement:

At death, 80% of active male members and 65% of active female members were assumed to have spouses. Males were assumed to be three years older than their female spouses.

Judges:

At death, 100% of members were assumed to have spouses. Males were assumed to be three years older than their female spouses.

Highway Patrol:

At death, 90% of all active members were assumed to have spouses. Males were assumed to be three years older than their female spouses.

EXHIBIT IV

SUMMARY OF PLAN PROVISIONS

This exhibit 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.

1. <u>Covered Employees:</u>

Members of the Public Employees Retirement System, the Highway Patrolmen's Retirement System and the Defined Contribution Retirement Plan who elect coverage.

2. <u>Normal Retirement:</u>

Age requirement:

Main and DC Systems and Judges:

Age 65, or at any age 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 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 and DC Systems and Judges:

None.

Highway Patrol:

Ten years.

Law Enforcement:

Three consecutive years.

Other requirements:

Participation in the North Dakota Uniform Group Insurance Program.

Benefit amount:

A monthly stipend equal to $5.00 times service.

EXHIBIT IV (continued)

3. <u>Early Retirement:</u>

Age requirement:

Main and DC Systems and Judges:

Age 55.

Highway Patrol and Law Enforcement:

Age 50.

Service requirement:

Main and DC Systems and Law Enforcement:

Three years.

Judges:

Five years.

Highway Patrol:

Ten years.

Benefit amount:

Main and DC Systems and Judges:

The Normal Retirement Benefit reduced by 3% for retirements at age 64 and an additional 6% for each year by which retirement precedes age 64.

Benefits are unreduced upon the fulfillment of the Rule of 85.

Highway Patrol and Law Enforcement:

The Normal Retirement Benefit reduced by 3% for retirements at age 54 and an additional 6% for each year by which retirement precedes age 54.

Benefits are unreduced upon the fulfillment of the Rule of 80 for Highway Patrol and Rule of 85 for Law Enforcement.

4. <u>Disability Retirement:</u>

Age requirement:

None.

Service requirement:

Six months.

Other requirements:

As required by applicable pension plan.

EXHIBIT IV (continued)

Benefit amount:

Same as Normal Retirement Benefit.

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

Age requirement:

None.

Service requirement:

Main and DC Systems and Law Enforcement:

Three years.

Judges:

Five years.

Highway Patrol:

Ten 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.

6. **Post-Retirement Death Benefit:**

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 System 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.

7. **Alternative Options:**

If benefits from the member's Retirement System 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.

8. **Service:**

Members receive credit for each year and month of employment.

9. **Contributions:**

The employer contributes 1.14% of covered salaries and wages for participating employees.

EXHIBIT V

CHANGES IN PLAN PROVISIONS

The change made in the plan provisions since the prior valuation is:

Participation in the North Dakota Uniform Group Insurance Program has been expanded to no longer require enrollment in the NDPERS health insurance plan. The participation rates were changed in conjunction with this Plan change.

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