

NDPERS BOARD SPECIAL MEETING

Agenda

Location:

Office of the Attorney General
Conference Room
17th Floor, State Capitol
Bismarck, ND

August 11, 2017

Time: 10:00 a.m.

Proposed Agenda items:

- Retirement Return Assumption – Sparb (Board Action)
- Medicare Part D Renewal – Kathy (Board Action)
- Transition update – Transition Subcommittee (Board Action)

Any individual requiring an auxiliary aid or service must contact the NDPERS ADA Coordinator at 328-3900, at least 5 business days before the scheduled meeting.



**North Dakota
Public Employees Retirement System**
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Memorandum

TO: NDPERS Board
FROM: Sparb & Sharon
DATE: August 11, 2017
SUBJECT: Return Assumptions

At this meeting we will need to finalize the return assumptions for the 2017 valuation. Specifically we will discuss:

1. The PERS system assumption
2. The Highway Patrol assumption
3. The Retiree Health Insurance Credit assumption
4. The Job Service assumption

PERS Plan Assumption

At the April meeting you reviewed Attachment #1 (April Board memo & attachments) and adopted a new return assumption for the PERS plan of 7.75%.

At our July planning meeting I reviewed with you the following slides with additional information on the implications of this change.

Implications for GASB

- Based on the funding projections we just completed for the NDPERS Main System, the funded ratio is not projected to ever reach 100 percent under the current contributions rates and methods and assumptions. Therefore, for accounting purposes under GASB 67/68, there would be a crossover date and required use of a blended/single discount rate that is lower than 7.75 percent.
- This will drive up liabilities for GASB reporting for the state and political subdivisions. Consideration in borrowing costs

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	\$ in Thousands	
	Long-Term Expected Rate of Investment Return	
	8.00%	7.75%
Actuarial Accrued Liability as of July 1, 2016	\$3,299,381	\$3,394,810
Total Pension Liability as of July 1, 2016	3,299,381	3,998,619
Plan Fiduciary Net Position as of July 1, 2016	2,324,784	2,324,784
Net Pension Liability as of July 1, 2016	974,597	1,673,835
Projected Crossover Year	NA	2060
Single Discount Rate	8.00%	6.38%
Fidelity Index's "20-Year Municipal GO AA Index" Rate	3.56%	3.56%

Implications

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- For financial reporting purposes liabilities will increase for all our participating employers by about 20%
- This will be a consideration in their cost of borrowing together with their other liabilities

At that meeting we discussed the possibility of delaying the return assumption change or phasing it in. Since then staff has followed up with GRS. Attachment #2 is their response. The bottom line is that they would not agree with delaying or phasing in the change and would have to add the following to our report:

The 8.0% investment return assumption conflicts with what we believe is reasonable for the purpose of the assignment. As a result, the 8.0% investment return assumption, in our opinion, deviates from the guidance in an Actuarial Standard of Practice and therefore is not considered to be in conformity with the requirements of GASB 67/68.

Staff also contacted our audit firm, Clifton Larson Allen (CLA), to see how this might impact our annual audit report. They provided us with the following excerpt from GASB statement 82:

Selection of Assumptions

This Statement clarifies that a *deviation*, as the term is used in Actuarial Standards of Practice issued by the Actuarial Standards Board, from the guidance in an Actuarial Standard of Practice is not considered to be in conformity with the requirements of Statement 67, Statement 68, or Statement 73 for the selection of assumptions used in determining the total pension liability and related measures.

In summary, this means that using an investment return assumption that is a deviation from the actuarial standards would not follow Generally Accepted Accounting Principles (GAAP) and would prevent CLA from issuing a clean opinion on our financial statements.

GRS will be at the board meeting by conference call to answer any questions you may have.

In recognition of the above:

Staff Recommendation:

Maintain the 7.75% return assumption for the PERS plan for the 2017 Valuation.

The Highway Patrol Plan (HP) assumption

Attachment #3 is the GRS recommendation for the HP plan. Since the HP funds are invested with same asset allocation as the PERS plan it would be inconsistent if we would use a different return assumption.

Staff Recommendation

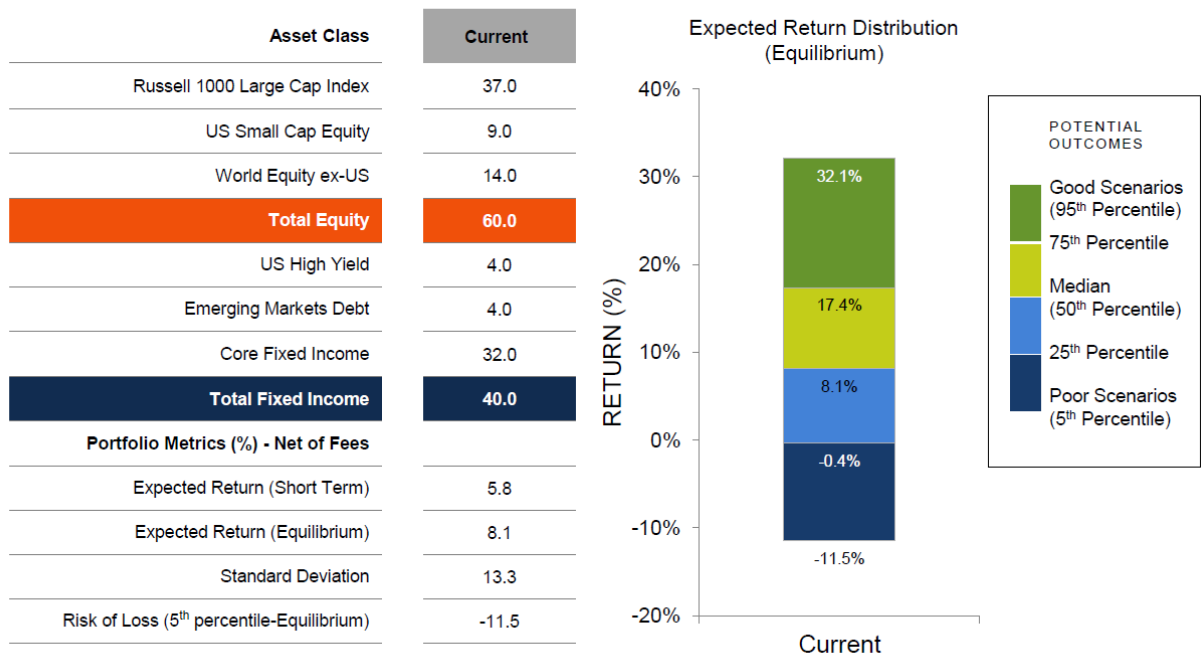
Adopt a 7.75% return assumption for the HP plan

Retiree Health Insurance Credit Fund (RHIC)

Attachment #4 is the GRS memo relating to the retiree health fund return assumption. You will note that they are recommending an assumption of 7.25%. Staff (including RIO) would propose to move from 8% to 7.5% this year and then review it again next year.

The following is the most recent asset allocation study done by SEI:

North Dakota Retiree Health Insurance Credit Fund



Source: SEI Capital Market Assumptions. Please see important disclosures at the beginning of this section and at the back of the presentation.

Staff and the investment committee reviewed this plans asset allocation this year. Consequently we reviewed the GRS recommendation with RIO. They referred the question to SEI who did the asset allocation work. Their response on the 7.25% was:

Our understanding is that this is a long term assumption extending through the life of the RHIC Plan. In supporting this assumption, we generally look to our Capital Market Assumptions (CMAs) on the Equilibrium (or long term) basis. Looking at the allocation information we prepared back in February for the RHIC, the Equilibrium expected return for the current 60% equity and 40% fixed income allocation is 8.1%. While we have changed our CMAs since then, the Equilibrium expected return did not change for the RHIC.

I note that the Short Term expected return is lower than the 8.1% noted above (and has decreased with our new CMAs). However, our understanding is that the Equilibrium return is appropriate for supporting the actuarial rate.

Based on this information, either the 7.25% or 7.50% you note seems to be supportable.

The assumption for the 7/1/2016 valuation was 8.00% (also just under the Equilibrium return). A 50 bps reduction is a big change for any pension and a 75 bps reduction is extremely big. Therefore on this basis, if these are the only two points of consideration, I lean toward the 7.50% assumption with a further move lower (such as to 7.25%) to be considered at a later time.

Another point of consideration may be the pressure some systems in the US are facing from auditors, actuaries or other sources. Such pressure in some cases has resulted in lowering the rate; thus implying that a lower (versus any higher) rate might be somewhat more supportable.

In summary, if any change is made, moving to a 7.50% rate will be supportable with our CMAs and be a large reduction in the rate while still allowing for a further reduction in the future should that be desired.

Dave Hunter from RIO also indicated the following relating to the above response from SEI:

Here is the initial response I received from Jonathan Waite who is an FSA with SEI. I concur with his assessment that a 0.50% reduction (to 7.50%) is preferred at this time and we can continue to monitor the Capital Market Assumptions in the future (including next year).

Staff Recommendation:

Change the RHIC return assumption to 7.5%

Job Service Retirement Plan

At the May meeting the board adopted the following:

Job Service Retirement Plan

Mr. Collins reported that the Investment Subcommittee is looking at the closed Job Service Plan that will expire when the last member passes. Recommendation was made approve Portfolio 'A' 30/70 asset allocation by reducing equity from 40% to 30% and increasing fixed income from 60% to 70%. Discussion followed.

MS. SMITH MOVED APPROVAL OF PORTFOLIO 'A' TO REDUCE EQUITY TO 30% AND INCREASE FIXED INCOME TO 70%. MOTION WAS SECONDED BY MS. WASSIM.

Ayes: Ms. Goodhouse, Ms. Yvonne Smith, Mr. Sandal, Ms. Tufte, Ms. Wassim, Representative Anderson, Senator Dever and Chairman Strinden.

Nays: None

Absent: Mr. Seibel

The following is the asset allocation study that was the basis for this recommendation:

Job Service

Asset Class	Current	Portfolio A	Portfolio B
US Managed Volatility Equity	24.0	18.0	12.0
Global Managed Volatility Equity	16.0	12.0	8.0
Total Equity	40.0	30.0	20.0
US High Yield	3.0	4.0	4.0
Emerging Markets Debt	3.0	4.0	4.0
Core Fixed Income	19.0	22.0	25.0
Limited Duration Fixed Income	19.0	21.0	25.0
Diversified Short Term Fixed Income	10.0	12.0	14.0
Short Term Corporate Fixed Income	6.0	7.0	8.0
Total Fixed Income	60.0	70.0	80.0
Portfolio Metric (Net of Fees)			
Expected Return (Short Term)	5.0	4.7	4.3
Expected Return (Equilibrium)	7.0	6.7	6.4
Standard Deviation	7.5	6.6	5.7
Risk of Loss (5 th percentile-Short Term)	-6.6	-5.6	-4.6

As a result of the above actions we need to set the return assumption for the Job Service plan.

Attachment # 5 is a memo with the GRS thoughts on the above. You will note that they indicate:

GRS recommends that the investment return assumption used in the annual actuarial valuation be consistent with (1) the asset allocation adopted and (2) the duration of the liabilities. Considering the relatively short duration of the liabilities, we recommend an investment return assumption that is closer to the short term expected return, as compared to the equilibrium return developed by SIMC.

You will note that the short term projected return in the table above for portfolio A is 4.7% and the equilibrium return is 6.7%.

Staff (including RIO) is recommending that we use a 5.7% return assumption which is the mid point between the short term and long term projections. We would also recommend reviewing it further next year.

Based upon the work done by SEI you will note the effect of the change in return on the funded status of the plan.

Estimated Funded Status of the Plan

Discount Rate	7.0%	6.75%	6.5%	6.0%	5.0%	4.0%	3.0%
Market Value of Assets	\$96.5MM	\$96.5MM	\$96.5MM	\$96.5MM	\$96.5MM	\$96.5MM	\$96.5MM
Liabilities	\$61.4MM	\$62.5MM	\$63.6MM	\$65.9MM	\$70.7MM	\$75.9MM	\$81.4MM
Funded Status	157.3%	154.5%	151.8%	146.6%	136.6%	127.2%	118.6%
Surplus/(Deficit)	\$35.2MM	\$34.1MM	\$33.0MM	\$30.7MM	\$25.9MM	\$20.7MM	\$15.1MM

Staff Recommendation:

Adopt a 5.7% return assumption for the Job Service Retirement Plan.



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Public Employees Retirement System**
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Return Assumptions Attachment 1

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Memorandum

TO: PERS Board
FROM: Sparb
DATE: March 9, 2017
SUBJECT: Economic Assumptions

This last year we did an analysis of our economic and demographic assumptions with our former actuary Segal. Since we changed actuaries to GRS this last year as well as a result of a bid they indicated they would like the opportunity to review our assumptions as well (with no charge). Attachment #1 is the product of that review and GRS will be at the board meeting to review it with you as well. One of the assumptions they review in the attachment is our return assumption (which is 8%). For your reference Attachment #2 is paper recently done by NASRA on the return assumption used by other states.

The following is some background information from GRS:

As you are well aware, the actuarial assumptions used in the July 1, 2016, actuarial valuations of the North Dakota Public Employees Retirement System ("NDPERS") were provided to us by the NDPERS Board and were based on an experience review for the five-year period ending July 1, 2014, performed by the prior actuary (Segal). As a result, GRS was unable to judge the reasonableness of the actuarial assumptions and methods without performing a substantial amount of additional work beyond the scope of the annual actuarial valuation, and did not do so.

However, in order to opine on the reasonableness of the actuarial assumptions to be used in conjunction with the upcoming July 1, 2017, actuarial valuations, we have reviewed the economic assumptions (rate of inflation, investment return, wage inflation and payroll growth assumption), along with the current asset valuation method. The primary purpose of this study is to review the key economic actuarial assumptions and the asset valuation method, in light of the relevant Actuarial Standards of Practice ("ASOPs"), in order to determine their continued appropriateness.

The Actuarial Standards Board (ASB) promulgates ASOPs for use by actuaries when rendering actuarial services in the United States. The ASB is vested by the U.S.-based actuarial organizations with the responsibility for promulgating ASOPs for actuaries rendering actuarial services in the United States. Each of these actuarial organizations requires its members, through its Code of Professional Conduct (Code), to satisfy applicable ASOPs when rendering actuarial services in the United States.

ASOP No. 27, in particular, provides guidance to actuaries in selecting (including giving advice on selecting) economic assumptions—primarily investment return, discount rate, postretirement benefit increases, inflation, and compensation increases—for measuring obligations under defined benefit pension plans. In a public retirement system like NDPERS, it is ultimately the Retirement Board's responsibility to approve the actuarial assumptions used in the actuarial valuations. It is the actuary's duty to provide the Board with information needed to make those decisions and to make recommendations to the Board. Although the Board is the ultimate decision-making body, as the actuary to NDPERS we are still bound by ASOP No. 27 in providing advice or making recommendations to the Board.

Board Action Requested:

To determine:

1. If we should maintain the existing assumptions.
2. Or should we explore these recommendations further by having GRS attend the April meeting to give us a presentation and develop estimates of the effect on contribution requirements and long term funded status.

**Return Assumptions
Attachment 1-1**

DRAFT

**NORTH DAKOTA PUBLIC EMPLOYEES
RETIREMENT SYSTEM
2017 ECONOMIC ACTUARIAL ASSUMPTION REVIEW**

February 20, 2017

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

Subject: 2017 Economic Actuarial Assumption Review

Dear Members of the Board:

The actuarial assumptions used in the July 1, 2016, actuarial valuation of the North Dakota Public Employees Retirement System (“NDPERS”) were provided to us by the NDPERS Board and were based on an experience review for the five-year period ending July 1, 2014, performed by the prior actuary (Segal).

As a result, GRS was unable to judge the reasonableness of the actuarial assumptions and methods without performing a substantial amount of additional work beyond the scope of the annual actuarial valuation, and did not do so.

However, in order to opine on the reasonableness of the actuarial assumptions to be used in conjunction with the July 1, 2017, actuarial valuations, we have reviewed the economic assumptions (rate of inflation, investment return, wage inflation and payroll growth assumption), along with the current asset valuation method.

The primary purpose of this study is to review the key economic actuarial assumptions and the asset valuation method to determine their continued appropriateness.

Our study includes a review of the experience and expectations associated with the following actuarial assumptions and methods:

- Price Inflation;
- Investment Return;
- Wage Inflation;
- Payroll Growth; and
- Asset Valuation Method.

Section I contains a summary of the actuarial assumption review. The results of this analysis are set forth in Section II of this report.

This assumption review is based on general economic data and target asset allocation information as provided by NDPERS Staff. 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. Based on these items, we certify these results to be true and correct.

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.

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

The signing actuaries are independent of the plan sponsor.

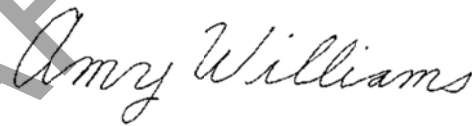
The actuaries submitting this report (Lance J. Weiss, Amy Williams and David Kausch) are all Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



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



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



David T. Kausch, F.S.A., E.A., M.A.A.A., F.C.A., Ph.D.
Senior Consultant and GRS Chief Actuary

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SECTION I

SUMMARY

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NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

EXPERIENCE REVIEW SUMMARY

Background

For any pension plan, actuarial assumptions are selected that are intended to provide reasonable estimates of future expected events, such as System investment returns, interest crediting, and patterns of retirement, turnover and mortality. These assumptions, along with an actuarial cost method, an asset valuation method, the employee census data and the plan's provisions are used to determine the actuarial liabilities and overall actuarially determined funding requirements for the plan. The true cost to the plan over time will be the actual benefit payments and expenses required by the plan's provisions for the participant group under the plan. To the extent the actual experience deviates from the actuarial assumptions, experience gains and losses will occur. These gains (losses) then serve to reduce (increase) future actuarially determined contributions and increase (reduce) the funded ratio.

The actuarial assumptions should be individually reasonable and consistent in the aggregate. They should also be reviewed periodically to ensure that they remain appropriate.

The actuarial cost method, for plan sponsors that use actuarially based funding policies, automatically adjusts contributions over time for differences between what is assumed and the actual experience under the plan.

The Actuarial Standards Board ("ASB") provides guidance on measuring the costs of financing a retirement program through the following Actuarial Standards of Practices ("ASOPs"):

- (1) ASOP No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*;
- (2) ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*;
- (3) ASOP No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations*; and
- (4) ASOP No. 44, *Selection and Use of Asset Valuation Methods for Pension Valuations*.

The recommendations provided in this report are consistent with the preceding actuarial standards of practice.

ASOP No. 27 provides guidance related to selecting economic assumptions, including the investment return, discount rate, inflation, postemployment benefit increases, compensation increases and any other related economic assumptions.

In developing specific actuarial assumptions, ASOP No. 27 requires the actuary to follow a general process of:

- (1) Identifying the components of the assumption;
- (2) Evaluating relevant data;
- (3) Considering specific and general factors related to the measurement; and
- (4) Selecting a reasonable assumption.

In evaluating relevant data, the actuary should include appropriate recent and long-term historic data, but not give undue weight to recent experience.

NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

EXPERIENCE REVIEW SUMMARY

Further, under ASOP No. 27, an assumption is considered reasonable if:

- It is appropriate for the purpose of the measurement;
- It reflects the actuary's professional judgment;
- It takes into account historical and current economic data that is relevant as of the measurement date;
- It reflects the actuary's estimate of future experience, the actuary's observation of the estimates inherent in market data, or a combination thereof; and
- It has no significant bias (i.e., it is not significantly optimistic or pessimistic).

Also according to the ASOP No. 27, the actuary should recognize the uncertain nature of the items for which assumptions are selected and, as a result, may consider several different assumptions reasonable for a given measurement. The actuary should also recognize that different actuaries will apply different professional judgment and may choose different reasonable assumptions. As a result, a narrow range of reasonable assumptions may develop both for an individual actuary and across actuarial practice.

Asset Valuation Method

The Asset valuation method is a method used by the actuary to determine the actuarial value of assets used in an annual actuarial valuation of a defined benefit pension plan. ASOP 44 "Selection and Use of Asset Valuation Methods for Pension Valuations" applies to actuaries when performing professional services with respect to selecting or using an asset valuation method for any defined benefit pension plan that is not a social insurance program. Throughout this standard, any reference to selecting an asset valuation method also includes giving advice on selecting an asset valuation method. For instance, the actuary may advise the plan sponsor on selecting an asset valuation method, where the plan sponsor is responsible for selecting the method.

Actuarial Assumptions

The actuarial assumptions are usually divided into two categories:

- Economic assumptions, which include:
 - Assumed rate of price inflation (as measured by the change in the Consumer Price Index for all urban consumers)
 - Underlies all other economic assumptions
 - Assumed long-term rate of return on investments
 - Rate at which projected benefits are reduced to present value
 - General wage increases
 - Reflects inflationary forces on increases in pay for all members
 - Rate of payroll growth
 - Reflects expectation of growth in total payroll and affects level percent of pay actuarially determined contribution

NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

EXPERIENCE REVIEW SUMMARY

Recommendations for the economic assumptions are based on the actuary's expectations as to the effect of future economic conditions on the operation of the plan, with input from Staff, the Board and other investment advisors. The assumptions are adopted by the Board.

- Demographic assumptions, which include the following rates:
 - Mortality
 - Retirement
 - Disablement
 - Withdrawal (other termination of employment)

Demographic assumptions are generally based on the plan's own experience, taking into account emerging trends. Rates of salary increase due to promotion and longevity are also related to the plan's experience.

This report includes a review of the following economic assumptions only:

- Price inflation
- Investment return assumption
- Payroll growth assumption

Current Assumptions/Methods Used in the July 1, 2016, Actuarial Valuations

The actuarial assumptions used in the July 1, 2016, actuarial valuation of the North Dakota Public Employees Retirement System ("NDPERS") were provided to us by the NDPERS Board and were based on an experience review for the five-year period ending July 1, 2014, performed by the prior actuary (Segal).

These assumptions are as follows:

Price inflation: The assumed rate of price inflation used was 3.50 percent.

Investment return: The assumed rate of investment return used was 8.00 percent, net of investment expenses, annually.

Payroll growth assumption: The assumed rate of payroll growth used in amortizing the unfunded liability as a level percent of pay was 4.50 percent for the Main System and Law Enforcement and 4.00 percent for Judges.

Asset Valuation Method: The current actuarial value of assets:

- Immediately recognizes interest and dividends; and
- Recognizes the total recognized and unrecognized appreciation or depreciation from the current year (net change in fair value of investments) over a five-year period.

NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

EXPERIENCE REVIEW SUMMARY

Key Findings and Recommendations

Gabriel, Roeder, Smith & Company (“GRS”) has performed a review of the economic actuarial assumptions of NDPERS. The primary purpose of the study was to compare the actual economic experience and future expectations with the current actuarial assumptions used in the actuarial valuations.

In a public retirement system like NDPERS, it is ultimately the Retirement Board’s responsibility to approve the actuarial assumptions used in the actuarial valuations. It is the actuary’s duty to provide the Board with information needed to make those decisions and to make recommendations to the Board.

Following is a summary of our key findings and recommendations:

- **Price inflation:** We recommend reducing the rate of price inflation from 3.50 percent to 2.50 percent.
- **Investment return:** The investment return assumption, net of investment expenses, compounded annually, is currently 8.00 percent for all Systems except Job Service. This reflects an underlying inflation assumption of 3.50 percent and a real return assumption of 4.50 percent. We recommend reducing the investment return assumption from 8.00 percent to 7.50 percent (based on a 2.50 percent inflation assumption and a real return assumption of 5.00 percent). The decrease in the investment return assumption of 0.50 percent reflects a decrease in the inflation assumption of 1.00 percent and an increase in the real return assumption of 0.50 percent. We also recommend monitoring the assumption for continued reasonableness in the future. This is based on NDPERS maintaining the same target asset allocation in the future.
- **Payroll growth assumption:** We recommend reducing the general payroll growth assumption from 4.50 percent (which reflects an underlying general or price inflation assumption of 3.50 percent) to 3.75 percent (based on an underlying price inflation assumption of 2.50 percent) for the Main System and Law Enforcement and from 4.00 percent to 3.25 percent for Judges.
- **Asset Valuation Method:** We recommend changing the current asset valuation method (which is biased toward the actuarial value of assets being lower than the market value of assets) to a method which smooths total investment gains or losses compared to the investment return assumption (recommended to be 7.50 percent) over a five-year period.

SECTION II

EXPERIENCE ANALYSIS

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NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

ECONOMIC ASSUMPTIONS

Economic assumptions reflect the effects of economic forces on the projections of retirement benefits payable from the plan and in the discounting of those benefits to present value.

These assumptions are based, at their core, on the assumed level of price inflation. Each economic assumption is then developed from expected spreads over price inflation.

The key economic assumptions are:

1. Assumed Rate of Inflation – The rate of price inflation (as measured by the Consumer Price Index for all Urban consumers) which underlies the remainder of the economic assumptions.
2. Assumed Rate of Investment Return – The rate at which projected future benefits under the pension plan are reduced to present value.
3. Rate of General Annual Pay Increases – This reflects inflationary forces on increases in pay for individual members.

Rate of Inflation

Historical Inflation Results

By “inflation,” we mean price inflation, as measured by annual increases in the Consumer Price Index (CPI). This inflation assumption underlies all of the other economic assumptions we employ. It not only impacts investment return, but also salary increase rates and the payroll growth assumption. The current annual inflation assumption is 3.50 percent.

Over the latest five-year period from June 2011 through June 2016, the CPI-U has increased at an average rate of 1.32 percent. However, the assumed inflation rate is only weakly tied to past results.

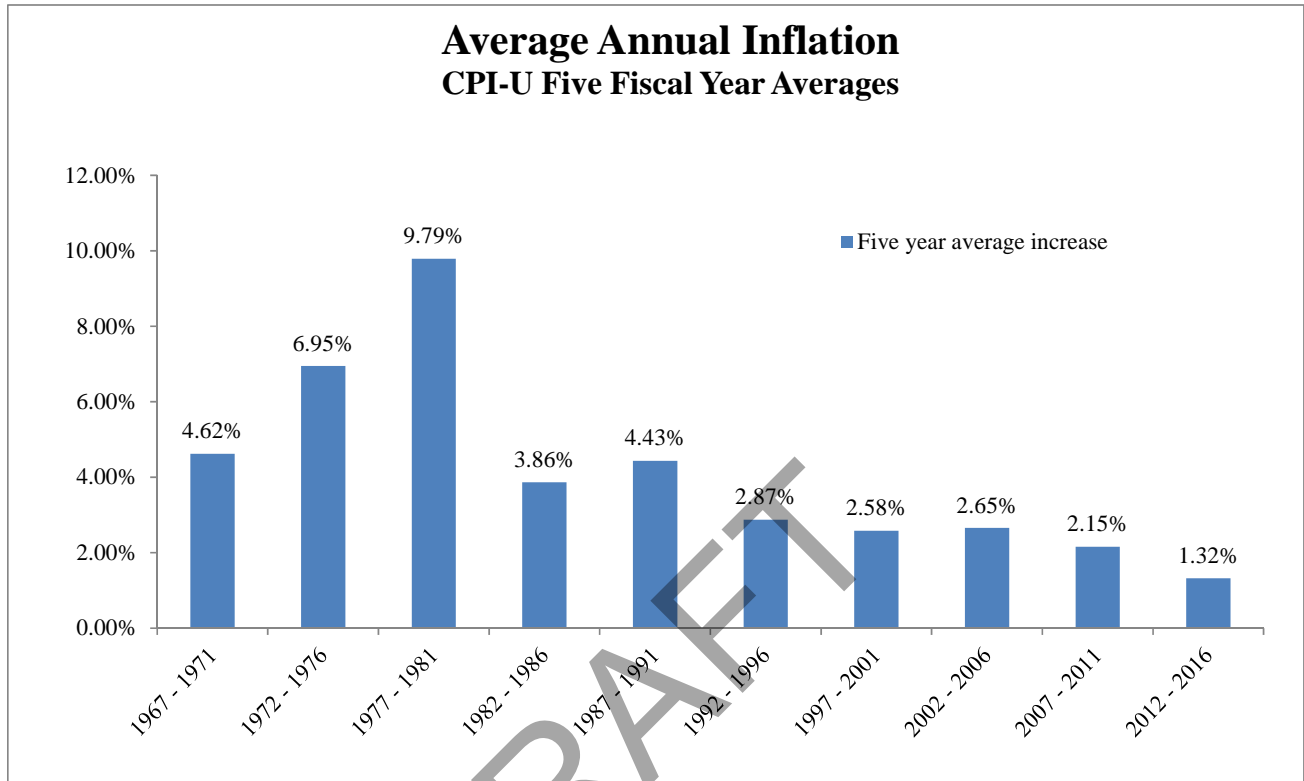
The following table shows the average inflation over various periods, ending June 2016.

Fiscal Year	Annual Increase in CPI-U
2011-12	1.66%
2012-13	1.75%
2013-14	2.07%
2014-15	0.12%
2015-16	1.00%
3-Year Average	1.06%
5-Year Average	1.32%
10-Year Average	1.74%
20-Year Average	2.18%
25-Year Average	2.32%
30-Year Average	2.66%
40-Year Average	3.68%
50-Year Average	4.10%

NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

ECONOMIC ASSUMPTIONS

The graph below shows the average inflation over 5-year periods over the last 50 years:

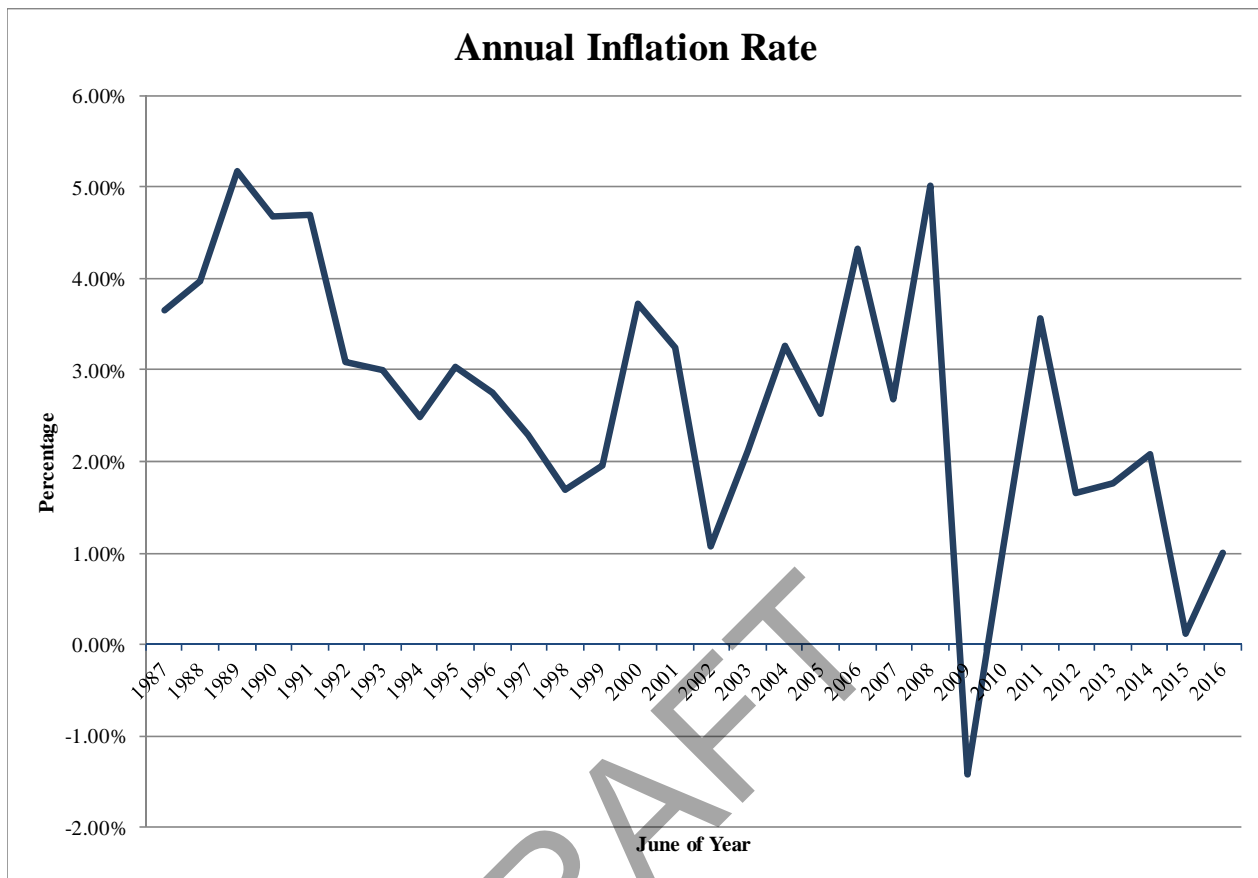


As the above chart illustrates, the high inflation of the 1970s and 1980s is well in the past. The geometric average price inflation was 2.66% per year over the last 30 years from June 1986 to June 2016, 2.18 percent over the last 20 years and 1.74 percent over the last 10 years.

The graph on the next page illustrates the rate of inflation on a year by year basis over the last 30 years.

NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

ECONOMIC ASSUMPTIONS



Future Inflation Expectations

Since price inflation is relatively volatile and is subject to a number of influences not based on recent history, economic assumptions are less reliably based on recent past experience than are the demographic assumptions. Therefore, it is important not to give undue weight to recent experience. We must also consider future expectations as well.

One measure is the spread between yields on U.S. Treasuries and U.S. TIPS. This calculation varies depending on the maturity selected. Moreover, there may be other influences on the result such as a risk premium on Treasuries and a liquidity premium on TIPS.

The longest horizon we can use for this basis is 30 years. The yield on 30-year Treasuries as of December 30, 2016, was 3.06 percent and the yield on inflation index TIPS was 0.99 percent for a raw difference of 2.07 percent. This is close to the Federal Reserve's target inflation rate of 2.0 percent.

We also surveyed the inflation assumption used by investment consulting firms. In our sample of eight firms, the inflation assumption ranged from 1.56 percent to 2.75 percent, with an average of 2.22 percent. Based on the May 24, 2016, presentation titled "Overview of Callan's Asset Liability Study – RIO's Recommended Asset Allocation Framework," Callan's inflation assumption is 2.25 percent.

NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

ECONOMIC ASSUMPTIONS

Another point of reference is the Social Security Administration's (SSA) 2016 Trustees Report, in which the Office of the Chief Actuary is projecting a long-term average ultimate annual inflation rate of 2.6 percent under the intermediate cost assumption. (The ultimate inflation assumption is 2.0 percent and 3.2 percent respectively in the low cost and high cost projection scenarios.) The Social Security Trustees report uses the ultimate rates for their 75-year projections, much longer than the longest horizon we can discern from Treasuries and TIPS.

The table on the following page presents a summary of inflation rate forecasts from various professional experts.

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NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

ECONOMIC ASSUMPTIONS

Summary of Forward-looking Compound Annual Price Inflation Forecasts (From Professional Experts in Forecasting Inflation)	
Investment Consultants and Forecasters Average of 8 in 2016 GRS Survey	2.22%
Excess Yield of Nominal Treasuries Over Inflation Indexed, December 2016	
30-Year Treasury Constant Maturity – Nominal	3.11%
30-Year Treasury Constant Maturity – Inflation Indexed	1.04%
Difference (30-Year Implied Price Inflation)	2.07%
20-Year Treasury Constant Maturity – Nominal	2.84%
20-Year Treasury Constant Maturity – Inflation Indexed	0.89%
Difference (20-Year Implied Price Inflation)	1.95%
10-Year Treasury Constant Maturity – Nominal	2.49%
10-Year Treasury Constant Maturity – Inflation Indexed	0.56%
Difference (10-Year Implied Price Inflation)	1.93%
Federal Reserve Bank of Cleveland	
30-Year Expectation on December 15, 2016	2.22%
20-Year Expectation on December 15, 2016	2.09%
10-Year Expectation on December 15, 2016	1.93%
Quarterly Survey of Professional Economic Forecasters 4Q2016 Federal Reserve Bank of Philadelphia 10-Year Forecast	2.22%
Federal Reserve Board's Federal Open Market Committee Long-run Price Inflation Objective (Since Jan 2012)	2.00%
Congressional Budget Office: <i>The Budget and Economic Outlook</i> Overall Inflation (Jan 2016)	2.00%
2016 Social Security Trustees Report	
GDP Deflator Ultimate Intermediate Assumption	2.20%
CPI-W Ultimate Intermediate Assumption	2.60%

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Recommendation

Based on this information, our opinion is that it would be reasonable to lower the current price inflation assumption of 3.50 percent. However, we caution against lowering the price inflation assumption below 2.00 percent. (The Federal Reserve's target and the Social Security Trustees' ultimate high cost assumptions are both 2.00 percent.) We are recommending the inflation assumption be reduced from 3.50 percent to 2.50 percent. This reduction recognizes lower inflation expectations in both the near and longer term and is also consistent with the assumption used by the SSA Office of the Chief Actuary for the intermediate cost projections and closer to the inflation assumption of 2.25 percent used by NDPERS' investment consultant, Callan.

Investment Return

ASOP No. 27

Actuaries are required to comply with Actuarial Standard of Practice No. 27 (ASOP 27) in setting economic assumptions for retirement plans, including the assumed investment return rate.

In a public retirement system like NDPERS, it is ultimately the Retirement Board's responsibility to approve the actuarial assumptions used in the actuarial valuations. It is the actuary's duty to provide the Board with information needed to make those decisions and to make recommendations to the Board. Although the Board is the ultimate decision-making body, we are still bound by ASOP No. 27 in providing advice or recommendations to the Board.

According to the current ASOP No. 27 applicable to actuarial valuations with a measurement date on or after September 30, 2014, each economic assumption selected by the actuary should be reasonable. For this purpose, an assumption is reasonable if it has the following characteristics:

- It is appropriate for the purpose of the measurement;
- It reflects the actuary's professional judgment;
- It takes into account historical and current economic data that is relevant as of the measurement date;
- It reflects the actuary's estimate of future experience, the actuary's observation of the estimates inherent in market data, or a combination thereof; and
- It has no significant bias (i.e., it is not significantly optimistic or pessimistic).

Also according to ASOP No. 27, the actuary should recognize the uncertain nature of the items for which assumptions are selected and, as a result, may consider several different assumptions reasonable for a given measurement. The actuary should also recognize that different actuaries will apply different professional judgment and may choose different reasonable assumptions. As a result, a range of reasonable assumptions may develop both for an individual actuary and across actuarial practice.

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Real Return

The allocation of assets within the universe of investment options will significantly impact the overall performance. Therefore, it is meaningful to identify the range of expected returns based on the fund's targeted allocation of investments and an overall set of capital market assumptions.

The following table illustrates the asset allocation framework recommended by the North Dakota Retirement & Investment Office (RIO), as shown in the presentation dated May 24, 2016.

Target Asset Allocation	
Asset Class	RIO Proposed Mix 2B
Global Equity - Public	51%
Global Equity - Private	7%
Global Fixed Income - Investment Grade	17%
Global Fixed Income - Non Investment Grade	5%
Global Real Assets - Real Estate	11%
Global Real Assets - Infrastructure & Timber	8%
Cash Equivalents	1%
Total	100%
Total Equity	58%
Total Fixed Income	22%
Total Global Real Assets	19%

We reviewed capital market assumptions developed and published by eight independent investment consulting firms, with varying time horizons. Four of the investment consulting firms have assumptions for longer time horizons (15 to 30 years). The remaining four firms have assumptions for shorter time horizons (10 years or less).

These investment consulting firms periodically issue reports that describe their capital market assumptions; that is, their estimates of expected returns, volatility and correlations among the different asset classes. The assumptions for most of the investment consultants are for 2016. While some of these assumptions may be based upon historical analysis, many of these firms also incorporate forward-looking adjustments to better reflect near-term and long-term expectations. The estimates for core investments (i.e., fixed income, equities and real estate) are generally based on anticipated returns produced by passive index funds.

Given NDPERS' current target asset allocation and the capital market assumptions from the investment consultants, the development of the average nominal return, net of investment expenses, is provided in the table on the following page.

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Investment Consultant	Investment Consultant Expected Nominal Return	Investment Consultant Inflation Assumption	Expected Real Return (2)-(3)	Actuary Inflation Assumption	Expected Nominal Return (4)+(5)	Plan Incurred Administrative Expenses	Expected Nominal Return Net of Expenses (6)-(7)	Standard Deviation of Expected Return (1-Year)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	7.42%	2.50%	4.92%	2.50%	7.42%	0.00%	7.42%	15.26%
2	7.43%	2.25%	5.18%	2.50%	7.68%	0.00%	7.68%	12.92%
3	6.98%	1.56%	5.42%	2.50%	7.92%	0.00%	7.92%	12.33%
4	7.78%	2.20%	5.58%	2.50%	8.08%	0.00%	8.08%	13.62%
5	8.05%	2.26%	5.79%	2.50%	8.29%	0.00%	8.29%	12.33%
6	8.66%	2.75%	5.91%	2.50%	8.41%	0.00%	8.41%	13.21%
7	8.17%	2.01%	6.16%	2.50%	8.66%	0.00%	8.66%	13.89%
8	8.61%	2.20%	6.41%	2.50%	8.91%	0.00%	8.91%	14.07%
Average	7.89%	2.22%	5.67%	2.50%	8.17%	0.00%	8.17%	13.45%

Based on each investment consulting firm's assumptions, we estimated the expected real return of NDPERS' portfolio (col. (4)). Next, based on the actuary's recommended inflation and investment expense assumption, we estimated the nominal return net of expenses (col. (8)). As the table shows, the average one-year nominal return (net of expenses) of the eight firms is 8.17 percent, which is higher than the current investment return assumption of 8.00 percent.

However, in addition to examining the expected one-year return, it is important to review anticipated volatility of the investment portfolio and understand the range of long-term net returns that could be expected to be produced by the investment portfolio.

The following table provides the 40th, 50th and 60th percentiles of the 20-year geometric average of the expected nominal return, net of expenses. The table also shows the probability of exceeding the current 8.00 percent assumption and alternative lower assumptions.

Investment Consultant	Distribution of 20-Year Average Geometric Net Nominal Return			Probability of exceeding 8.00%	Probability of exceeding 7.50%	Probability of exceeding 7.25%	Probability of exceeding 7.00%	Time Horizon of Capital Market Assumptions
	40th	50th	60th					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1	5.50%	6.35%	7.20%	31.31%	36.68%	39.48%	42.35%	Unknown
2	6.19%	6.91%	7.64%	35.26%	41.89%	45.32%	48.79%	10 Years
3	6.53%	7.22%	7.92%	38.83%	45.96%	49.60%	53.25%	10 Years
4	6.48%	7.24%	8.00%	40.01%	46.50%	49.81%	53.12%	10 Years
5	6.90%	7.59%	8.29%	44.11%	51.38%	55.02%	58.63%	10-15 Years
6	6.87%	7.61%	8.35%	44.73%	51.53%	54.94%	58.32%	30 Years
7	7.01%	7.78%	8.56%	47.17%	53.67%	56.90%	60.09%	30 Years
8	7.23%	8.02%	8.81%	50.22%	56.63%	59.79%	62.90%	20 Years
Average	6.59%	7.34%	8.10%	41.45%	48.03%	51.36%	54.68%	

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As this table indicates, the expected rate of return based on (1) NDPERS' current target asset allocation, (2) the recommended inflation assumption of 2.50 percent and (3) the capital market assumptions from the eight investment consultants is 7.34 percent. In addition, the average results of all eight firms indicate there is only about a 41.45 percent probability that NDPERS will produce an average return that exceeds 8.00 percent over the next 20 years. The average results of all eight firms indicate there is about a 48.03 percent probability that NDPERS will produce an average return that exceeds 7.50 percent over the next 20 years. In addition, the 20-year expectation for investment consultants 6 and 7 is likely lower than what is shown (because their assumptions are based on a 30-year time horizon).

Peer Group Comparison

The National Association of State Retirement Administrators (NASRA) issued a publication in February 2016, entitled "NASRA Issue Brief: Public Pension Plan Investment Return Assumptions". As stated in the Issue Brief "Among the 127 plans measured, more than one-half have reduced their investment return assumption since fiscal year 2008. The average return assumption is 7.62 percent." The issue brief includes the assumption used (or announced for use) as of February 2016 for each of the 127 plans included in the survey. Of those, about 28 percent of the plans were using an investment return assumption of 8.0 percent (or higher). However, the assumptions included in the survey do not reflect subsequent changes that were made after February 2016.

North Dakota Teachers Fund for Retirement uses an assumption of 7.75 percent and South Dakota Retirement System was using an assumption of 7.25 percent which was expected to increase to 7.50 percent after fiscal year 2017.

Recommendation

Based on our analysis of the expected investment return and the current target asset allocation, we recommend reducing the long-term investment return assumption to 7.50 percent for the actuarial valuation as of June 30, 2017, reflecting an inflation assumption of 2.50 percent and a real rate of return of 5.00 percent. We recommend that the assumed investment return be monitored for continued appropriateness between experience reviews. Also, any significant changes in the target asset allocation of NDPERS may warrant an additional review of the rate of return assumption. We believe that this assumption can be supported by the revised Actuarial Standard of Practice No. 27. Under the Standard, all economic assumptions must be selected to be consistent with the purpose of the measurement. The purpose of the measurement is to determine the contribution rate which will lead to the accumulation of assets to pay benefits when due. The recommended assumption of 7.50 percent is below the arithmetic mean as disclosed previously, to account for future volatility of future investment returns.

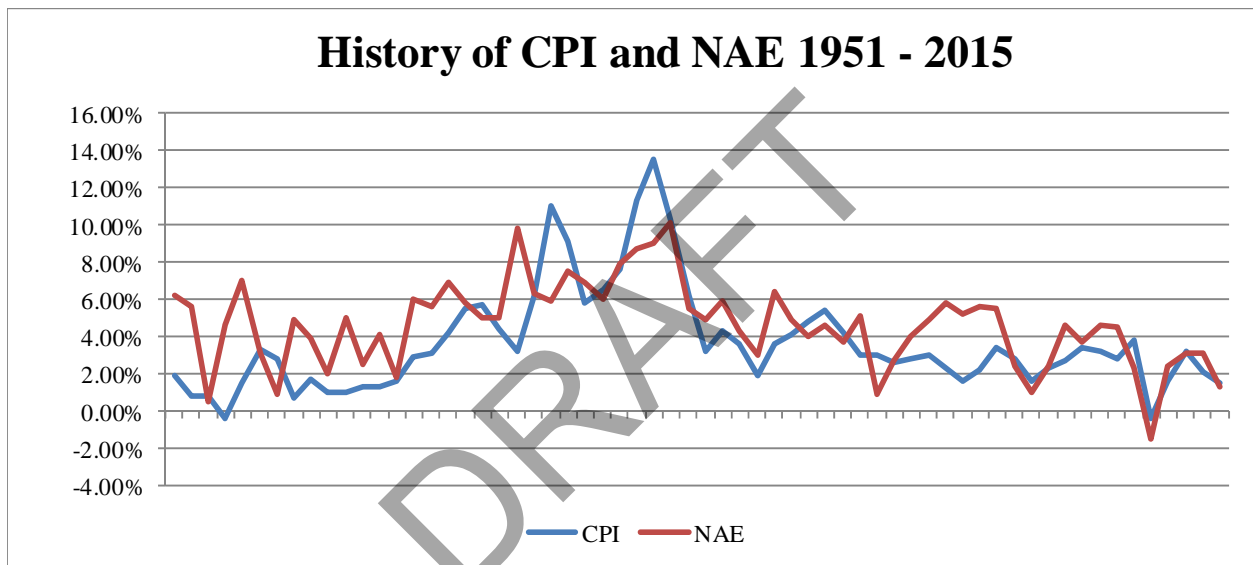
Callan's (NDPERS' current investment consultant) expected return is 7.00 percent for the next 10 years. ND RIO added 50 basis points to this return to convert their 10-year Capital Market Expectations to Long-Term Returns (of 30+ years), resulting in a return assumption of 7.50 percent. If the Board wishes to add additional conservatism to the actuarial valuation due to factors such as market volatility or liquidity concerns, they may consider decreasing the assumption below the recommended 7.50 percent assumption in a future valuation.

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General Wage Increase and Payroll Growth Assumption

The NDPERS actuarial assumptions make a distinction between price inflation (currently assumed to be 3.50 percent) and the rate of payroll growth (currently assumed to be 4.00 percent for Judges and 4.50 percent for the other Systems). The National Average Earnings (NAE) series published in connection with the operation of the Social Security program is a useful proxy for measuring general changes in wage levels in the economy. Increases in NAE typically exceed increases in the Consumer Price Index (CPI), although there are periods where the patterns are reversed. The economic argument for wages exceeding prices in the long run is that CPI is based on the prices of a fixed basket of goods whereas wages reflect innovations, real productivity growth, labor supply and demand and other factors in addition to pure price inflation.



The following table shows the average inflation and increase in the NAE through 2015 (the last full year available).

Year	Annual Increase in CPI-U	Annual Increase in NAE	Excess Increase in NAE over CPI
5-Year Average	1.68%	2.91%	1.23%
10-Year Average	1.95%	2.67%	0.72%
20-Year Average	2.23%	3.39%	1.15%
25-Year Average	2.41%	3.36%	0.96%
30-Year Average	2.67%	3.56%	0.90%
40-Year Average	3.78%	4.39%	0.61%
50-Year Average	4.12%	4.78%	0.66%
60-Year Average	3.70%	4.57%	0.87%
64-Year Average	3.51%	4.54%	1.03%

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Over the last 64 years, NAE has exceeded CPI 43 times and the averages over that period are 4.5 percent for NAE and 3.5 percent for CPI. The last 25 years has had fewer cases of high inflation, but the distinction between prices and wages still appears. Over the last 25 years, the average increase in NAE is 3.4 percent and the average increase in CPI is 2.4 percent.

As with the investment return assumption, past experience does not necessarily dictate future expectations. Current expectations are mixed on whether price and wage inflation will remain low in the short term, particularly due to the after effects of recent federal government spending. For a long term view, the 2016 Annual Report from the Trustees of the Social Security Administration (SSA) assumes an intermediate average ultimate CPI of 2.6 percent over the next 75 years and an ultimate intermediate growth assumption for average wages in covered employment of 3.8 percent. The SSA report provides alternate “High-cost” assumptions of 2.0 percent CPI/2.6 percent wages and “Low-cost” assumptions of 3.2 percent CPI/5.0 percent wages.

We have reviewed payroll growth history from the experience study performed by the prior actuary, Segal, for the period ending June 30, 2014. We have summarized the information from the experience study below and have estimated a total payroll increase based on no increase in the number of active members during the period.

		PERS Excluding Judges			Judges		
		Total Covered Payroll	# Active Members	Implied Increase in Payroll (0% Member Growth)	Total Covered Payroll	# Active Members	Implied Increase in Payroll (0% Member Growth)
Average Change (5-Year)	2.02%	6.90%	2.20%	4.60%	5.10%	1.20%	3.85%
Average Change (10-Year)	2.31%	6.90%	2.40%	4.39%	4.70%	0.80%	3.87%
Average Change (15-Year)	2.43%	6.20%	2.10%	4.02%	4.00%	0.40%	3.59%
Average Change (19-Year)	2.38%	6.30%	2.10%	4.11%	4.30%	-0.20%	4.51%

Recommendation

Based on the increase in total payroll and the average inflation during the same periods of time, we concur with Segal that an increase in the productivity increase assumption is reasonable. ***We recommend increasing the assumption for productivity increases from the current assumptions by 0.25 percent.*** Combining a recommended 1.25 percent productivity increase for PERS (excluding Judges) and a 0.75 percent for Judges with a 2.50 percent inflation assumption, implies a wage growth assumption of 3.75 percent for PERS and 3.25 percent for Judges. These assumptions are summarized below:

	PERS Excluding Judges		Judges	
	Present Assumption	Recommended Assumption	Present Assumption	Recommended Assumption
Price Inflation	3.50%	2.50%	3.50%	2.50%
Productivity Increases	1.00%	1.25%	0.50%	0.75%
Total Wage Inflation	4.50%	3.75%	4.00%	3.25%

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We recommend using the same assumption as the wage inflation assumption for the payroll growth assumption (which is used in amortizing the unfunded liability as a level percent of pay).

Salary Increase Assumption

Members' salaries are projected in the actuarial valuation using salary increase assumptions. For NDPERS, this assumption varies by years of service and age (and if the employer is state or non-state). The salary increase assumption is comprised of three components – price inflation, productivity increases and seniority/merit/promotion increases. Although we are recommending changes to the price inflation and productivity increase assumptions, we are not recommending a change to the current salary increase assumptions. We have reviewed the experience study performed by the prior actuary, Segal, and note that the GRS recommended inflation assumption is 0.25 percent lower than the Segal recommended assumption and the productivity increase recommendations are the same. Inflation during the experience study period was 2.0 percent (lower than both the GRS recommended assumption of 2.50 percent and the Segal recommended assumption of 2.75 percent for price inflation).

Following are the salary increase assumptions for PERS:

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

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Following are the assumptions for the Highway Patrolmen's Retirement System:

Service At Beginning of Year	Increase Rate
0	15.00%
1	10.00%
2	8.00%
Age*	
Under 36	8.00%
36 - 40	7.50%
41 - 49	6.00%
50+	5.00%

Recommendation

Based on (1) the level of salary increases during the period (given the relatively low inflation), (2) the small difference in recommendations by the two firms and (3) the fact that the seniority/merit/promotion increases recommended by Segal appear reasonable based on the data shown in the report, GRS does not believe that a change in this assumption is warranted.

Asset Valuation (i.e., Smoothing) Method

ASOP No. 44 covers the selection and use of asset valuation methods for pension valuations.

For the NDPERS actuarial valuations, the actuarial value of assets:

- Immediately recognizes interest and dividends; and
- Recognizes the total appreciation or depreciation from the current year (net change in fair value of investments) over a five-year period.

Under this method, 100 percent of the return from interest and dividends is recognized immediately and 20 percent of the return attributable to investments (net of interest and dividends and investment expenses) is recognized in the current year. Eighty (80) percent of the return attributable to investments is deferred and recognized over the next four years. As a result, there will be deferred gains from all years in which the net investment return from investments is greater than zero percent.

Because of the high probability that the return on investments will exceed interest and dividends in any individual year, the actuarial value of assets is more likely to be lower than the market value of assets (because recognition of investment returns is deferred to future years).

ASOP No. 44 Section 3.4 states "If the asset valuation method has significant systematic bias, the actuary should disclose such bias in accordance with section 4.1.". Section 3.4 provides an example of a method with a systematic bias (which is the exact method currently being used for the NDPERS valuations):

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- “an asset valuation method that is designed to produce a value consistently below market value if, in all time periods relevant to the application of the asset valuation method, the actual return on market value of the assets subject to the asset valuation method were equal to the actuary’s expected return on those assets (such as a method that immediately recognizes interest and dividends but defers recognition of realized and unrealized capital gains and losses)”

Based on the ASOP No. 44 guidance, GRS disclosed the asset method bias in the July 1, 2016, actuarial valuation report.

Recommendation

Although the current asset method provides some degree of conservatism by deferring a portion of all capital gains and losses (which would understate the funded ratio compared to a non-biased method), we would recommend that other economic actuarial assumptions be strengthened instead. Therefore, we recommend changing the current asset smoothing method (which is biased toward the actuarial value of assets being lower than the market value of assets) to a method which smooths total investment gains or losses compared to the investment return assumption over a five-year period.

DRAFT

NASRA Issue Brief: Public Pension Plan Investment Return Assumptions



Updated February 2017

As of September 30, 2016, state and local government retirement systems held assets of \$3.82 trillion.¹ These assets are held in trust and invested to pre-fund the cost of pension benefits. The investment return on these assets matters, as investment earnings account for a majority of public pension financing. A shortfall in long-term expected investment earnings must be made up by higher contributions or reduced benefits.

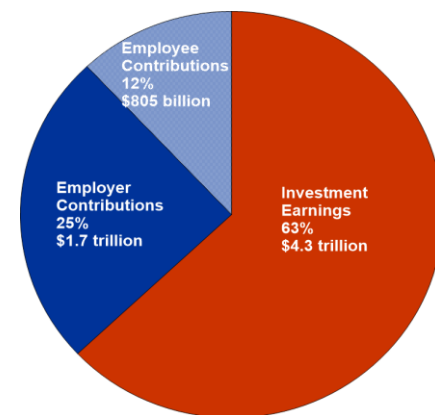
Funding a pension benefit requires the use of projections, known as actuarial assumptions, about future events. Actuarial assumptions fall into one of two broad categories: demographic and economic. Demographic assumptions are those pertaining to a pension plan's membership, such as changes in the number of working and retired plan participants; when participants will retire, and how long they'll live after they retire. Economic assumptions pertain to such factors as the rate of wage growth and the future expected investment return on the fund's assets.

As with other actuarial assumptions, projecting public pension fund investment returns requires a focus on the long-term. This brief discusses how investment return assumptions are established and evaluated, compares these assumptions with public funds' actual investment experience, and the challenging investment environment public retirement systems currently face.

Because investment earnings account for a majority of revenue for a typical public pension fund, the accuracy of the return assumption has a major effect on a plan's finances and actuarial funding level. An investment return assumption that is set too low will overstate liabilities and costs, causing current taxpayers to be overcharged and future taxpayers to be undercharged. A rate set too high will understate liabilities, undercharging current taxpayers, at the expense of future taxpayers. An assumption that is significantly wrong in either direction will cause a misallocation of resources and unfairly distribute costs among generations of taxpayers.

As shown in Figure 1, since 1986, public pension funds have accrued approximately \$6.8 trillion in revenue, of which \$4.3 trillion, or 63 percent, is from investment earnings. Employer contributions account for \$1.7 trillion, or one-fourth of the total, and employee contributions total \$805 billion, or 12 percent.²

Figure 1: Public Pension Sources of Revenue, 1986-2015



Source: Compiled by NASRA based on U.S. Census Bureau

¹ Federal Reserve, *Flow of Funds Accounts of the United States: Flows and Outstandings, Third Quarter 2016*, Table L.120

² US Census Bureau, *Annual Survey of Public Pensions, State & Local Data*

Most public retirement systems review their actuarial assumptions regularly, pursuant to state or local statute or system policy. The entity responsible for setting the return assumption, as identified in Appendix B, typically works with one or more professional actuaries, who follow guidelines set forth by the Actuarial Standards Board in Actuarial Standards of Practice No. 27 (Selection of Economic Assumptions for Measuring Pension Obligations) (ASOP 27), which prescribes the factors actuaries should consider in setting economic actuarial assumptions. ASOP 27 recommends that actuaries consider the context of the measurement they are making, as defined by such factors as the purpose of the measurement, the length of time the measurement period is intended to cover, and the projected pattern of the plan's cash flows.

ASOP 27 also advises that actuarial assumptions be reasonable, defined in subsection 3.6 as being consistent with five specified characteristics; and requires that actuaries consider relevant data, such as current and projected interest rates and rates of inflation; historic and projected returns for individual asset classes; and historic returns of the fund itself. For plans that remain open to new members, actuaries focus chiefly on a long investment horizon, i.e., 20 to 30 years, as this is the length of a typical public pension plan's funding period. One key purpose for relying on a long timeframe is to promote the key policy objectives of cost stability and predictability, and intergenerational equity among taxpayers.

The investment return assumption used by public pension plans typically contains two components: inflation and the real rate of return. The sum of these components is the nominal return rate, which is the rate that is most often used and cited. The system's inflation assumption typically is applied also to other actuarial assumptions, such as the level of wage growth and, where relevant, assumed rates of cost-of-living adjustments (COLAs). Achieving an investment return approximately commensurate with the inflation rate normally is attainable by investing in securities, such as US Treasury bonds, that are considered to be risk-free, i.e., that pay a guaranteed rate of return.

The second component of the investment return assumption is the real rate of return, which is the return on investment after adjusting for inflation. The real rate of return is intended to reflect the return produced as a result of the risk taken by investing the assets. Achieving a return higher than the risk-free rate requires taking some investment risk; for public pension funds, this risk takes the form of investments in assets such as public and private equities and real estate, which contain more risk than Treasury bonds.

Unlike public pension plans, corporate plans are required by federal regulations to make contributions on the basis of current interest rates. As Figure 2 shows, this funding method results in plan costs that can be volatile and uncertain, often changing dramatically from one year to the next. This volatility is due partly to fluctuations in interest rates and has been identified as a leading factor in the decision among corporations to abandon their pension plans. By contrast, by focusing on the long-term and relying on a stable investment return assumption, public plans experience less contribution volatility.

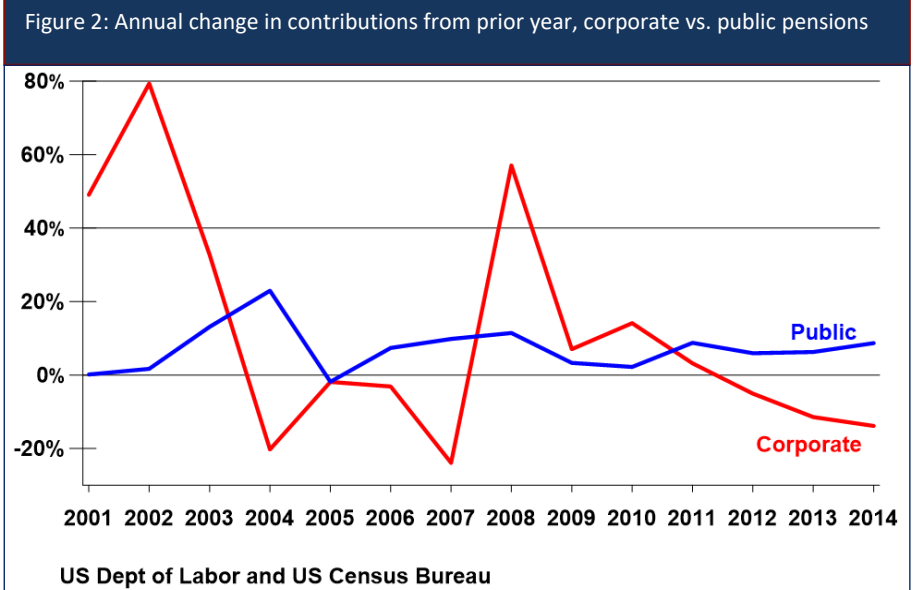


Figure 3: Median public pension annualized investment returns for period ended 12/31/2016

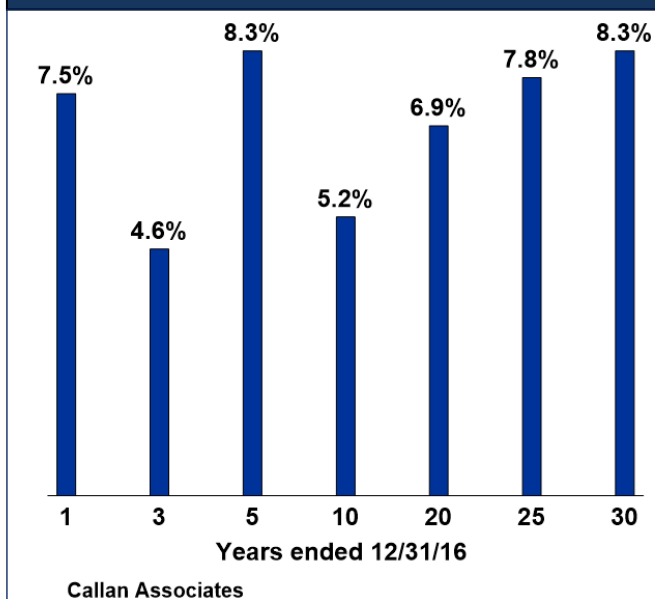


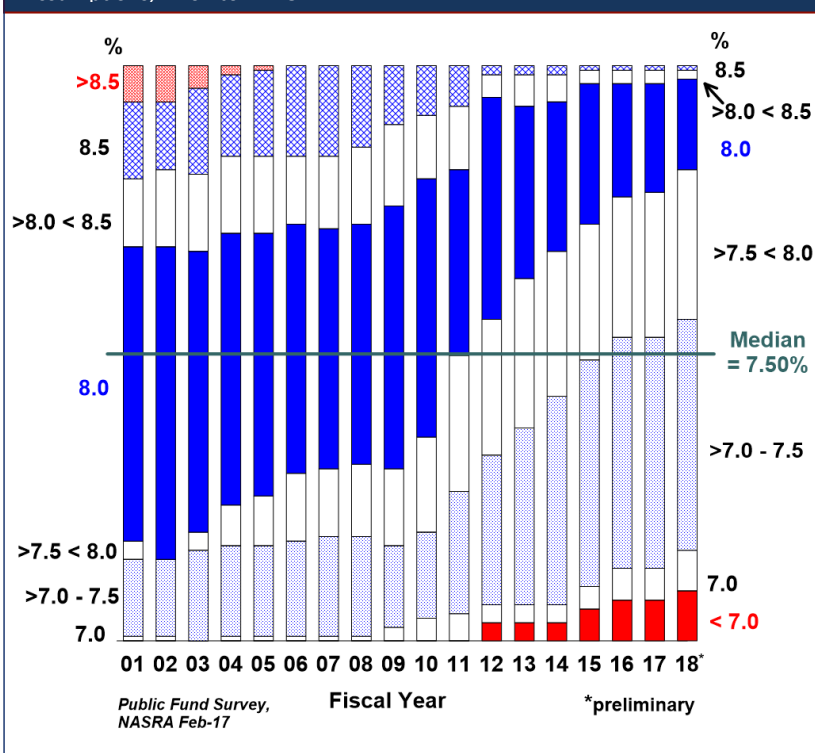
Figure 3 plots median public pension fund annualized investment returns for a range of periods ended December 31, 2016. As the higher investment returns achieved in the 1980s and the 1990s are replaced by lower returns in more recent years, average annualized returns for longer periods, such as 20 and 25 years, have begun to decline gradually. The steep market declines of 2000-02 and 2008-09 have imposed a particularly negative effect for measurement periods that incorporate those events.

In the wake of the 2008-09 decline in capital markets, and Great Recession, global interest rates and inflation have remained low by historic standards, due partly to so-called quantitative easing of central banks in many industrialized economies, including the U.S. Now in their eighth year, these low interest rates, along with low rates of projected global economic growth, have led to reductions in projected returns for most asset classes, which, in turn, have resulted in an unprecedented number of reductions in the investment return

assumption used by public pension plans. This trend is illustrated by Figure 4, which plots the distribution of investment return assumptions among a representative group of plans since 2001. Among the 127 plans measured, nearly three-fourths have reduced their investment return assumption since fiscal year 2010, resulting in a decline in the average return assumption from 7.91 percent to 7.52 percent. If projected returns continue to decline, investment return assumptions are likely to also to continue their downward trend. Appendix A lists the assumptions in use or adopted for future use by the 127 plans in this dataset.

One challenging facet of setting the investment return assumption that has emerged more recently is a divergence between expected returns over the near term, i.e., the next five to 10 years, and over the longer term, i.e., 20 to 30 years³. A growing number of investment return projections are concluding that near-term returns will be materially lower than both historic norms as well as projected returns over longer timeframes. Because many near-term projections calculated recently are well below the long-term assumption most plans are using, some plans face the difficult choice of either maintaining a return assumption that is higher than near-term expectations, or lowering their return assumption to reflect near-term expectations.

Figure 4: Change in Distribution of Public Pension Investment Return Assumptions, FY 01 to FY 18



³ Horizon Actuarial Services, "Survey of Capital Market Assumptions, 2016 Edition (July 2016) p4

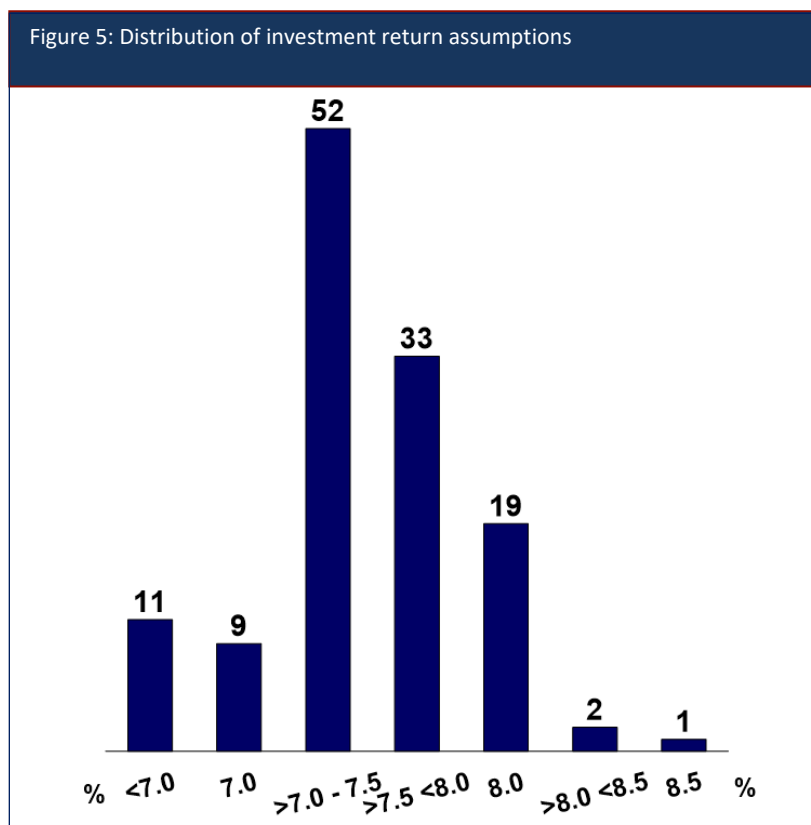
If near-term rates indeed prove to be lower than historic norms, plans that maintain their long-term return assumption are likely to experience a steady increase in unfunded pension liabilities and corresponding costs. Alternatively, plans that reduce their assumption in the face of diminished near-term projections will experience an immediate increase unfunded liabilities and required costs. As a rule of thumb, a 25 basis point reduction in the return assumption, such as from 8.0 percent to 7.75 percent, will increase the cost of a plan that has a COLA, by three percent of pay (such as from 10 percent to 13 percent), and a plan that does not have a COLA, by two percent of pay.

Conclusion

The investment return assumption is the single most consequential of all actuarial assumptions in terms of its effect on a pension plan's finances. The sustained period of low interest rates since 2009 has caused many public pension plans to re-evaluate their long-term expected investment returns, leading to an unprecedented number of reductions in plan investment return assumptions. Absent other changes, a lower investment return assumption increases both the plan's unfunded liabilities and cost. The process for evaluating a pension plan's investment return assumption should include abundant input and feedback from professional experts and actuaries, and should reflect consideration of the factors prescribed in actuarial standards of practice.

See Also:

- [Actuarial Standards of Practice No. 27](#), Actuarial Standards Board
- [The Liability Side of the Equation Revisited](#), Missouri SERS, September 2006



Contact:

Keith Brainard, Research Director, keith@nasra.org

Alex Brown, Research Manager, alex@nasra.org

[National Association of State Retirement Administrators](#)

Appendix A: Investment Return Assumption by Plan

(Figures reflect the nominal assumption in use, or announced for use, as of February 2017)

Plan	Rate (%)
Alabama ERS ¹	7.875
Alabama Teachers ¹	7.875
Alaska PERS	8.0
Alaska Teachers	8.0
Arizona Public Safety Personnel	7.40
Arizona SRS	8.0
Arkansas PERS	7.5
Arkansas Teachers	8.0
California PERF ²	7.375
California Teachers ³	7.250
Chicago Teachers	7.750
City of Austin ERS	7.50
Colorado Affiliated Local	7.50
Colorado Fire & Police Statewide	7.50
Colorado Municipal	7.25
Colorado School	7.25
Colorado State	7.25
Connecticut SERS	6.9
Connecticut Teachers	8.0
Contra Costa County	7.25
DC Police & Fire	6.5
DC Teachers	6.5
Delaware State Employees	7.2
Denver Employees	7.75
Denver Public Schools	7.25
Duluth Teachers	8.0
Fairfax County Schools	7.5
Florida RS	7.6
Georgia ERS	7.5
Georgia Teachers	7.5
Hawaii ERS	7.0
Houston Firefighters ⁴	8.5
Idaho PERS	7.0
Illinois Municipal	7.50
Illinois SERS	7.25
Illinois Teachers	7.0
Illinois Universities	7.25
Indiana PERF	6.75
Indiana Teachers	6.75
Iowa PERS	7.50
Kansas PERS	7.75
Kentucky County	6.75
Kentucky ERS	6.75

Kentucky Teachers	7.50
LA County ERS	7.50
Louisiana Parochial Employees	7.0
Louisiana SERS ⁵	7.70
Louisiana Teachers ⁵	7.70
Maine Local	6.875
Maine State and Teacher	6.875
Maryland PERS	7.55
Maryland Teachers	7.55
Massachusetts SERS	7.50
Massachusetts Teachers	7.50
Michigan Municipal	7.75
Michigan Public Schools	8.0
Michigan SERS	8.0
Minnesota PERF	8.0
Minnesota State Employees	8.0
Minnesota Teachers ⁶	8.40
Mississippi PERS	7.75
Missouri DOT and Highway Patrol	7.75
Missouri Local	7.25
Missouri PEERS	7.75
Missouri State Employees	7.65
Missouri Teachers	7.75
Montana PERS	7.75
Montana Teachers	7.75
Nebraska Schools	7.5
Nevada Police Officer and Firefighter	8.0
Nevada Regular Employees	8.0
New Hampshire Retirement System	7.25
New Jersey PERS	7.90
New Jersey Police & Fire	7.90
New Jersey Teachers	7.90
New Mexico PERA	7.25
New Mexico Teachers	7.75
New York City ERS	7.0
New York City Teachers	7.0
New York State Teachers	7.50
North Carolina Local Government	7.25
North Carolina Teachers and State Employees	7.25
North Dakota PERS	8.0
North Dakota Teachers	7.75
NY State & Local ERS	7.0
NY State & Local Police & Fire	7.0

Ohio PERS	7.50
Ohio Police & Fire	8.25
Ohio School Employees	7.50
Ohio Teachers	7.75
Oklahoma PERS	7.25
Oklahoma Teachers	7.50
Oregon PERS	7.50
Pennsylvania School Employees	7.25
Pennsylvania State ERS	7.50
Phoenix ERS	7.50
Rhode Island ERS	7.50
Rhode Island Municipal	7.50
San Diego County	7.50
San Francisco City & County	7.46
South Carolina Police	7.50
South Carolina RS	7.50
South Dakota PERS	6.50
St. Louis School Employees	8.0
St. Paul Teachers	8.0
Texas County & District	8.0
Texas ERS	8.0
Texas LECOS	8.0

Texas Municipal	6.75
Texas Teachers	8.0
TN Political Subdivisions	7.50
TN State and Teachers	7.50
Utah Noncontributory	7.20
Vermont State Employees	7.95
Vermont Teachers	7.90
Virginia Retirement System	7.00
Washington LEOFF Plan 1 ⁷	7.70
Washington LEOFF Plan 2	7.50
Washington PERS 1 ⁷	7.70
Washington PERS 2/3 ⁷	7.70
Washington School Employees Plan 2/3 ⁷	7.70
Washington Teachers Plan 1 ⁷	7.70
Washington Teachers Plan 2/3 ⁷	7.70
West Virginia PERS	7.50
West Virginia Teachers	7.50
Wisconsin Retirement System	7.20
Wyoming Public Employees	7.75

1. The Retirement Systems of Alabama is reducing its plans' return assumptions from 8.0 percent to 7.75 percent over a two-year period.
2. CalPERS is reducing its investment return assumption from 7.50 percent to 7.0 percent over three years. In February 2017 the CalPERS Board adopted a risk mitigation policy, effective beginning FY 2021, that calls for a reduction in the system's investment return assumption commensurate with the pension fund achieving a specified level of investment return. Details are available online: <https://www.calpers.ca.gov/docs/board-agendas/201702/financeadmin/item-9a-02.pdf>.
3. CalSTRS is reducing its investment return assumption from 7.50 percent to 7.0 percent over two years.
4. A proposal to reform pension plans sponsored by the City of Houston includes a reduction to the investment return assumption of the Houston Firefighters plan from its current level of 8.5 percent to 7.0 percent. This lower rate is pending approval of other elements of this proposal by the Texas Legislature during its 2017 Regular Session.
5. The Louisiana State Employees' Retirement System and Teachers' Retirement System are reducing their investment return assumption from 7.75 percent to 7.50 percent by 2021 in annual increments of 0.05 percent.
6. Legislation approved by the Minnesota Legislature in 2016 would have reduced the return assumption of the Teachers' Retirement Association to 8.0 percent, but was vetoed by the governor for reasons extraneous to the assumption.
7. For all Washington State plans except LEOFF Plan 2, the assumed rate of return is being reduced gradually, from 8.0 percent to 7.50 percent, over a 10-year period.

Appendix B: Entity Responsible for Setting Investment Return Assumption for Selected State Plans

State	System	Investment Return Assumption Set By
AK	Alaska Public Employees Retirement System	Alaska Retirement Management Board
AK	Alaska Teachers Retirement System	Alaska Retirement Management Board
AL	Retirement Systems of Alabama	Retirement board
AR	Arkansas Public Employees Retirement System	Retirement board
AR	Arkansas Teachers Retirement System	Retirement board
AZ	Arizona Public Safety Personnel Retirement System	Retirement board
AZ	Arizona State Retirement System	Retirement board
CA	California Public Employees Retirement System	Retirement board
CA	California State Teachers Retirement System	Retirement board
CO	Colorado Public Employees Retirement Association	Retirement board
CO	Fire & Police Pension Association of Colorado	Retirement board
CT	Connecticut State Employees Retirement System	State Employees Retirement Commission
CT	Connecticut Teachers Retirement Board	Retirement board
DC	District of Columbia Retirement Board	Retirement board
DE	Delaware Public Employees Retirement System	Retirement board
FL	Florida Retirement System	FRS Actuarial Assumption Estimating Conference ¹
GA	Georgia Employees Retirement System	Retirement board
GA	Georgia Teachers Retirement System	Retirement board
HI	Hawaii Employees Retirement System	Retirement board
IA	Iowa Public Employees Retirement System	IPERS Investment Board
ID	Idaho Public Employees Retirement System	Retirement board
IL	Illinois State Universities Retirement System	Retirement board
IL	Illinois State Employees Retirement System	Retirement board
IL	Illinois Municipal Retirement Fund	Retirement board
IL	Illinois Teachers Retirement System	Retirement board
IN	Indiana Public Retirement System	Retirement board
KS	Kansas Public Employees Retirement System	Retirement board
KY	Kentucky Retirement Systems	Retirement board
KY	Kentucky Teachers Retirement System	Retirement board
LA	Louisiana State Employees Retirement System	Retirement board
LA	Louisiana Parochial Employees' Retirement System	Retirement board
LA	Louisiana Teachers Retirement System	Retirement board
MA	Massachusetts State Employees Retirement System	Collaborative between the legislature, state treasurer, governor, and the Massachusetts Public Employee Retirement Administration Commission
MA	Massachusetts Teachers Retirement Board	Collaborative between the legislature, state treasurer, governor, and the Massachusetts Public Employee Retirement Administration Commission
MD	Maryland State Retirement and Pension System	Retirement board
ME	Maine Public Employees Retirement System	Retirement board
MI	Michigan Public School Employees Retirement System	Retirement board
MI	Michigan State Employees Retirement System	Retirement board
MI	Municipal Employees' Retirement System of Michigan	Retirement board
MN	Minnesota Public Employees Retirement Association	Legislature
MN	Minnesota State Retirement System	Legislature
MN	Minnesota Teachers Retirement Association	Legislature
MO	Missouri Local Government Employees Retirement System	Retirement board

MO	Missouri Public Schools Retirement System	Retirement board
MO	Missouri State Employees Retirement System	Retirement board
MO	MoDOT & Patrol Employees' Retirement System	Retirement board
MS	Mississippi Public Employees Retirement System	Retirement board
MT	Montana Public Employees Retirement Board	Retirement board
MT	Montana Teachers Retirement System	Retirement board
NC	North Carolina Retirement Systems	Retirement board
ND	North Dakota Public Employees Retirement System	Retirement board
ND	North Dakota Teachers Fund for Retirement	Retirement board
NE	Nebraska Public Employees Retirement System	Retirement board
NH	New Hampshire Retirement System	Retirement board
NJ	New Jersey Division of Pension and Benefits	Retirement board and state treasurer
NM	New Mexico Educational Retirement Board	Retirement board
NM	New Mexico Public Employees Retirement Association	Retirement board
NV	Nevada Public Employees Retirement System	Retirement board
NY	New York State & Local Retirement Systems	State comptroller
NY	New York State Teachers Retirement System	Retirement board
OH	Ohio Police and Fire Pension Fund	Retirement board
OH	Ohio Public Employees Retirement System	Retirement board
OH	Ohio School Employees Retirement System	Retirement board
OH	Ohio State Teachers Retirement System	Retirement board
OK	Oklahoma Public Employees Retirement System	Retirement board
OK	Oklahoma Teachers Retirement System	Retirement board
OR	Oregon Public Employees Retirement System	Retirement board
PA	Pennsylvania Public School Employees Retirement System	Retirement board
PA	Pennsylvania State Employees Retirement System	Retirement board
RI	Rhode Island Employees Retirement System	Retirement board
SC	South Carolina Retirement Systems	Legislature
SD	South Dakota Retirement System	Retirement board
TN	Tennessee Consolidated Retirement System	Retirement board
TX	Teacher Retirement System of Texas	Retirement board
TX	Texas County & District Retirement System	Retirement board
TX	Texas Employees Retirement System	Retirement board
TX	Texas Municipal Retirement System	Retirement board
UT	Utah Retirement Systems	Retirement board
VA	Virginia Retirement System	Retirement board
VT	Vermont State Employees Retirement System	Retirement board
VT	Vermont Teachers Retirement System	Retirement board
WA	Washington Department of Retirement Systems	Legislature
WI	Wisconsin Retirement System	Retirement board
WV	West Virginia Consolidated Public Retirement Board	Retirement board
WY	Wyoming Retirement System	Retirement board

1. The Conference consists of staff from the Florida House, Senate, and Governor's office

August 4, 2017

Mr. Sparb Collins
Executive Director
North Dakota Public Employees Retirement System
P.O. Box 1657
Bismarck, ND 58502-1657

Dear Sparb:

As you are aware, in order to make recommendations for the actuarial assumptions to be used for the July 1, 2017 actuarial valuation, GRS conducted an economic experience analysis. Based on our analysis, we recommended updated actuarial assumptions applicable to the North Dakota Public Employees Retirement System (NDPERS), including a 7.50% investment return assumption, an underlying inflation component of 2.50% and additional changes to the payroll growth assumption and the asset valuation method (all of which we believe are in compliance with the Actuarial Standards of Practice (ASOPs)).

The Board considered our recommendations and adopted an investment return assumption of 7.75% with a 2.50% inflation component at the April Board meeting. Based on the experience analysis that GRS completed, we determined that there was approximately a 45% probability that that NDPERS will earn an average annual return on assets that exceeds 7.75 percent over the next 20 years. Since GRS considers the 40th to 60th percentile range of results as the reasonable range, with the 50th percentile result being the recommended result, GRS was OK with the 7.75% investment return assumption since it was in the range of reasonable assumptions, albeit getting closer to the 40 percentile end of the reasonable range.

Recently, you informed us that the Board is now considering delaying adoption of the updated actuarial assumptions until the July 1, 2019, actuarial valuation, primarily because of the impact of the updated actuarial assumptions on the GASB 67/68 liabilities, and the fact that the Legislature will not be meeting for another year to consider an increase in the contribution rate.

The first comment we want to make is that even with an 8.0% investment return assumption, the North Dakota Public Employees Retirement System is very close to needing a blended discount rate to calculate the GASB TPL, NPL and pension expense. Our calculations, based on the results of the July 1, 2016, actuarial valuation, indicate that using an investment return assumption less than 7.9% would require the use of a blended discount rate. This implies that even if NDPERS elects to continue using the 8.0% investment return assumption, it is entirely possible that when we complete the July 1, 2017, GASB 67/68 actuarial valuation, a blended discount rate may be required if actuarial losses (for any reason) have occurred during the year ended June 30, 2017.

The second comment we have is in regard to the methodology we used in the experience analysis to analyze the investment return assumption. When we conducted the experience analysis, we used the 2016 GRS Capital Market Modeler. This modeling tool incorporated capital market assumptions developed and published by eight independent investment consultants in 2016. Based on this analysis, we determined that there is approximately a 48% probability that NDPERS will earn an average annual return on assets that exceeds 7.50 percent over the next 20 years, a 45% probability that NDPERS will earn an average annual return on assets that exceeds 7.75 percent over the next 20 years and a 41% probability that NDPERS will earn an average annual return on assets that exceeds 8.00 percent over the next 20 years. (The details of this analysis were included in the Experience Analysis Report that we issued to NDPERS.)

Since the Actuarial Standards of Practice require us to validate the continued reasonableness of the actuarial assumptions each year, we update the GRS Capital Market Modeler each year. We have now received updated 2017 capital market assumptions from the investment consultants we survey. Using updated 2017 capital market assumptions (based on capital market assumptions developed and published by 10 independent investment consultants), there is approximately a 39% probability that NDPERS will earn an average annual return on assets that exceeds 7.75% percent over the next 20 years and only a 36% probability that NDPERS will earn an average annual return on assets that exceeds 8.00% percent over the next 20 years. This implies that based on current capital market assumptions, the 7.75% investment return assumption that the Board adopted in April is now at the very high end of what we consider to be in the range of reasonable results. (Remember that GRS considers the 40th to 60th percentile range of results as the reasonable range, with the 50th percentile result being the recommended result.)

Considering this analysis, an 8.0% investment return assumption conflicts with what, in GRS' professional judgment, is reasonable for the purpose of the assignment. As such, if the NDPERS Board decides to keep the current 8.0% return assumption, we would have to add some additional language in the June 30, 2017, funding actuarial valuation report for NDPERS. We have not yet finalized what this exact additional language would be, but it will likely be similar to the following:

We recommended a change in the economic actuarial assumptions including a reduction in the investment return assumption from 8.0% to 7.5%; however, the Board elected not to make these changes. Based on the 2016 GRS Capital Market Modeler, there is approximately a 48 percent probability that NDPERS will produce an average annual return on assets that exceeds 7.50 percent over the next 20 years, and approximately a 41 percent probability that NDPERS will produce an average annual return on assets that exceeds 8.00 percent over the next 20 years. Based on our 2017 GRS Capital Market Modeler, there is approximately a 39 percent probability that NDPERS will produce an average annual return on assets that exceeds 7.75 percent over the next 20 years and only a 36% probability that NDPERS will earn an average annual return on assets that exceeds 8.00% percent over the next 20 years. Considering this analysis, the 8.0% investment return assumption conflicts with what, in GRS' professional judgment, is reasonable for the purpose of the assignment.



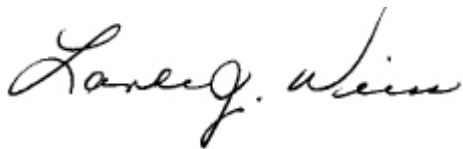
Mr. Sparb Collins
August 4, 2017
Page 3

Further, if the NDPERS Board decides to keep the 8.0% return, we would say something like the following in the June 30, 2017 GASB actuarial valuation report for NDPERS:

The 8.0% investment return assumption conflicts with what we believe is reasonable for the purpose of the assignment. As a result, the 8.0% investment return assumption, in our opinion, deviates from the guidance in an Actuarial Standard of Practice and therefore is not considered to be in conformity with the requirements of GASB 67/68.

We fully appreciate the significance of this issue. Therefore, please let us know if you want to discuss this issue further.

Regards,



Lance J. Weiss, EA, MAAA, FCA
Senior Consultant and Team Leader

cc: Sharon Shiermeister, North Dakota Public Employees Retirement System
Amy Williams, Gabriel, Roeder, Smith & Company
David Kausch, Gabriel, Roeder, Smith & Company



Return Assumptions Attachment 3

July 17, 2017

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

Re: Highway Patrolmen's Retirement System Projections (Based on Actuarial Valuation as of July 1, 2016) Under Alternate Economic Assumptions

Dear Members of the Board:

In accordance with your request, we have prepared projections of the actuarial valuation results for the North Dakota Highway Patrolmen's Retirement System ("HPRS") under the current actuarial assumptions used in the actuarial valuation as of July 1, 2016, and alternate economic actuarial assumptions.

Under the alternate economic actuarial assumptions, the discount rate/investment return assumption is 7.75 percent, which is the rate that was adopted for use for the actuarial valuation as of July 1, 2017.

Projection Scenarios

The projections in this letter are based on the actuarial assumptions shown in the following table.

Scenario	Discount Rate (Liabilities)	FY 2017 Investment Return*	Investment Return Thereafter*	Price Inflation	Payroll Growth (Amortization)	Asset Smoothing **
July 1, 2015 Valuation	8.00%	8.00%	8.00%	3.50%	4.50%	2016
July 1, 2016 Valuation	8.00%	8.00%	8.00%	3.50%	4.50%	2016
Baseline	8.00%	12.40%	8.00%	3.50%	4.50%	2017
Updated Baseline	7.75%	12.40%	7.75%	2.50%	3.75%	2017

* The estimated FY 2017 return is 12.4 percent as provided by NDPERS.

** The 2016 asset valuation (or smoothing) method:

- Immediately recognizes interest and dividends;
- Recognizes the total recognized and unrecognized appreciation or depreciation from the current year (net change in fair value of investments) over a five-year period; and
- Is biased toward the actuarial value of assets being lower than the market value of assets.

The 2017 asset method:

- Smooths total investment gains or losses compared to the investment return assumption percent over a five-year period;
- Contains no bias; and
- No gain or loss will be generated if investment return assumption is earned and actuarial value of assets will equal market value of assets.

Projection Results

As shown in Graph I, the projected funded ratio based on the actuarial valuation as of July 1, 2016, is lower than the projected funded ratio based on the actuarial valuation as of July 1, 2015, due to unfavorable investment experience during fiscal year 2016.

Under the updated baseline scenario which reflects the estimated fiscal year 2017 rate of investment return of 12.40 percent, updating the asset smoothing method to the method adopted for use in the actuarial valuation as of July 1, 2017, and changing the investment return assumption to 7.75 percent and the inflation assumption from 3.50 percent to 2.50 percent, the projected funded ratio is projected to increase to about 100 percent by 2046.

Benefits for future retirees are assumed to be limited by the IRC Section 415 limits. The 415 limits are projected to increase by the inflation rate, which was reduced to 2.50 percent under the updated baseline scenario. Under the updated baseline scenario, benefits are capped at a lower 415 limit than under the baseline scenario, which reduces the amount of benefits paid and the actuarial accrued liabilities in future years. This results in a higher projected funded ratio.

Exhibits Provided

The following graphs and exhibits provide additional information on the projected funded ratio for HPRS:

- Graph I: Comparison of Projected Funded Ratios for HPRS Under Alternate Economic Assumptions
- Baseline: Detailed Projections Under the Baseline Scenario
- Updated Baseline: Detailed Projections Under the Updated Baseline Scenario

Disclosures and Additional Information

The actuarial assumptions used in this analysis are the same assumptions used in the actuarial valuation as of July 1, 2016, except for the specific changes in economic actuarial assumptions as noted. A summary of the actuarial assumptions from the July 1, 2016, actuarial valuation can be found in Appendix I of this letter.



A summary of the current benefit provisions can be found in Appendix II of this letter.

Future actuarial measurements may differ significantly from the current measurements presented in this cost analysis, 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; and changes in plan provisions, contribution amounts or applicable law.

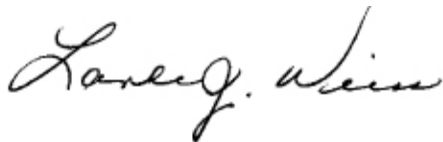
If any of the provisions, underlying data or assumptions used in this analysis appear to be incorrect or unreasonable, please let us know as soon as possible so we can update the analysis.

The signing actuaries are independent of the plan sponsor.

Lance J. Weiss and Amy Williams are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please let us know if you have any questions or would like to discuss the results of this analysis further.

Sincerely,



Lance J. Weiss, EA, MAAA, FCA
Senior Consultant and Team Leader

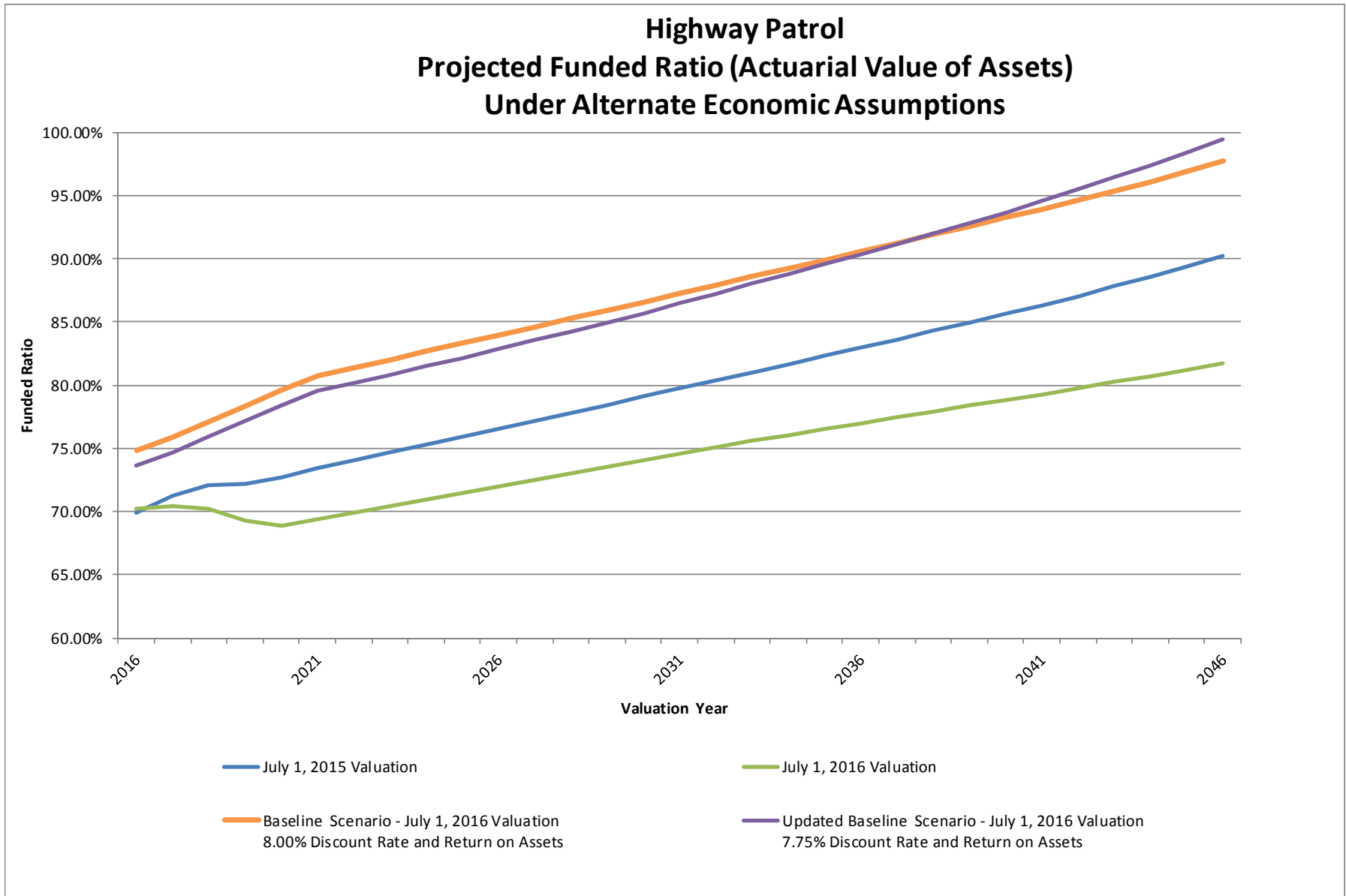


Amy Williams, ASA, MAAA, FCA
Consultant

AW:rl

cc: Mr. Sparb Collins, NDPERS
Mr. Bryan Reinhardt, NDPERS
Ms. Sharon Schiermeister, NDPERS
Mr. Alex Rivera, Gabriel, Roeder, Smith & Company
Ms. Kristen Brundirks, Gabriel, Roeder, Smith & Company
Mr. Neil Nguyen, Gabriel, Roeder, Smith & Company





ACTUARIAL ASSUMPTIONS

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.

Financing of Unfunded Actuarial Accrued Liabilities. The unfunded actuarial accrued liability is amortized using 20-year open level-percentage of pay amortization of the unfunded liability as of the actuarial valuation date.

Actuarial Value of Pension Plan Assets. The asset value is the actuarial value of assets which is calculated by recognizing 100 percent of the current year's interest and dividends and 20 percent of the current year and previous four years' total appreciation/(depreciation). The total appreciation/(depreciation) for a given year is fully recognized after a five-year period.

The current asset valuation method has a systematic bias toward the actuarial value of assets being lower than the market value of assets.

Valuation Assumptions

The contribution and benefit values of the Fund are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost method described above.

The principal areas of financial risk which require assumptions about future experiences are:

- Long-term rates of investment return to be generated by the assets of the Plan;
- Patterns of pay increases to members;
- Rates of mortality among members, retirees and beneficiaries;
- Rates of withdrawal of active members;
- Rates of disability among members; and
- The age patterns of actual retirement.

In a valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives; a period of time which can be as long as a century.

Actual experience of the Plan will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

ACTUARIAL ASSUMPTIONS

From time-to-time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations). Thus, an experience review of the North Dakota Highway Patrolmen's Retirement System for the period July 1, 2009, to July 1, 2014, was performed by the prior actuary to compare the demographic and economic experience against the actuarial assumptions used in the valuation. The actuarial assumptions described in this section were adopted by the Board for use beginning with the July 1, 2015, valuation.

Additional information regarding the rationale for the actuarial assumptions may be found in the 2015 experience review report. **The experience review was performed by the prior actuary.** All actuarial assumptions are expectations of future experience, not current market measures.

The assumptions were provided by, and are the responsibility of, the NDPERS Board. GRS was unable to judge the reasonableness of the assumptions and methods without performing a substantial amount of additional work beyond the scope of the assignment, and did not do so.

ACTUARIAL ASSUMPTIONS

Current Valuation Assumptions and Methods

The assumed rate of investment return used was 8.00%, net of expenses, annually.

The assumed rate of price inflation is 3.50 percent.

No Cost of Living Adjustments (COLA) are provided to benefits recipients. Therefore, there is no COLA assumption for this valuation.

The rates of annual salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefit amounts will be based.

Service At Beginning of Year	Increase Rate
0	15.00%
1	10.00%
2	8.00%
Age*	
Under 36	8.00%
36 - 40	7.50%
41 - 49	6.00%
50+	5.00%

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

The assumed rate of total payroll growth used in amortizing the unfunded liability as a level percentage of pay is 4.50 percent.

The assumed rate of benefit indexing for inactive vested benefits is 4.00 percent.

Application of Internal Revenue Code Section 415 Limits

Benefits for future retirees are assumed to be limited by the IRC Section 415 limits.

The limit for retirement ages of 62 and older is \$210,000 in 2016. The limits for retirement ages before age 62 are reduced from age 62 for early commencement using 5.0% interest, beginning of month payments, the 2016 Applicable Mortality Table (as published in IRS Notice 2015-53), and assumes forfeitable accrued benefits upon death prior to retirement.

The projected limits are assumed to increase by 3.50 percent annually.

ACTUARIAL ASSUMPTIONS

The mortality assumptions are as follows:

	Male Setback	Female Setback
RP-2000 Combined Healthy Mortality Table (healthy mortality)	2 years	3 years
RP-2000 Disabled Retiree Mortality Table (disabled post retirement)*	1 year	0 years

* Rates multiplied by 125 percent.

To provide a margin for future mortality improvements, generational mortality improvements from the year 2014 using the Social Security Administration (SSA) 2014 Intermediate Cost scale were assumed.

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

Age	<u>Healthy Mortality</u>		<u>Disabled Mortality</u>	
	<u>Future Life</u>		<u>Future Life</u>	
	<u>Expectancy (years) in 2016</u>		<u>Expectancy (years) in 2016</u>	
	Men	Women	Men	Women
20	67.65	72.06	32.27	49.75
25	62.25	66.64	30.36	45.90
30	56.86	61.22	28.35	41.98
35	51.49	55.82	26.21	37.97
40	46.17	50.44	23.85	33.83
45	40.91	45.11	21.15	29.52
50	35.70	39.83	18.27	25.27
55	30.58	34.64	15.76	21.51
60	25.63	29.56	13.57	18.22
65	20.97	24.71	11.54	15.22
70	16.74	20.23	9.58	12.45
75	12.92	16.11	7.73	9.95
80	9.60	12.46	6.12	7.79
85	6.86	9.28	4.81	5.97
90	4.78	6.69	3.63	4.49
95	3.40	4.89	2.55	3.40
100	2.59	3.85	1.92	2.76
105	2.15	3.13	1.60	2.14

ACTUARIAL ASSUMPTIONS

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 of Year	Service and Age-Based Rates For First Five
	Rates
0	10.00%
1	5.00%
2	5.00%
3	5.00%
4	5.00%
Age	Rates
Under 35	2.50%
35+	1.00%

Vested participants who 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:

Age 50 and 10 years of service.

ACTUARIAL ASSUMPTIONS

Rates of disability:

Before age 65: Males: 20% of OASDI disability incidence rates.
 Females: 10% of OASDI disability incidence rates.
 Age 65 and later: 0.25% per year.

Rates of disability were as follows:

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

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

Age	Rates
50	20.00%
51	20.00%
52	20.00%
53	20.00%
54	20.00%
55+	100.00%

Assumed Service

Credit: All active members (full time and part time) are assumed to earn one full year of service for each assumed future year of service.

Marital Status:

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

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

ACTUARIAL ASSUMPTIONS

Form of Payment Election Assumption:	Form of Payment 50% Joint and Survivor	Election Percentage 100%
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Benefit Service: Exact fractional years of service are used to determine the amount of benefit payable.

Decrement Timing: Retirement is assumed to occur at the beginning of the year. All decrements are assumed to occur at the middle of the year.

Decrement Operation: Turnover decrements do not operate after the member reaches retirement eligibility (early or normal).

Eligibility Testing: Eligibility for benefits is determined based upon the age nearest birthday and service on the date the decrement is assumed to occur.

Pay Increase Timing: Beginning of (fiscal) year.

Expenses: Assumed administrative expenses were added to the Normal Cost and are based on the prior year's expenses, adjusted for inflation. The assumed amount added to the Normal Cost is:

Expenses

Assumed FY 2016	\$	32,007
Actual FY 2016		31,450
Assumed FY 2017		32,551

Changes in Actuarial Valuation Assumptions and Methods Since the Previous Valuation

The application of Internal Revenue Code Section 415 limits to projected benefits has changed since the previous valuation as of July 1, 2015. Previously projected benefits were limited to the Section 415 limit applicable to the actuarial valuation year. Beginning with the actuarial valuation as of July 1, 2016, projected benefits are limited to a projected Section 415 limit which projects the limit at the actuarial valuation year by the inflation assumption used in the actuarial valuation. There have been no other changes in actuarial valuation assumptions or methods since the previous valuation as of July 1, 2015.

BENEFIT PROVISIONS

Current Valuation Plan Provisions

This Section summarizes the major benefit provisions of the North Dakota Highway Patrolmen's Retirement System as included in the valuation. It is not intended to be, nor should it be, interpreted as a complete statement of all plan provisions.

1. Normal Service Retirement:

Eligibility:

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

Benefit:

3.60% 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 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.

BENEFIT PROVISIONS

4. Deferred Vested Retirement:

Eligibility:

Ten years of eligible employment.

Benefit:

The Normal Service Retirement benefit is 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%

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

BENEFIT PROVISIONS

5. Pre-Retirement Death Benefits:**(a) Eligibility:**

Ten years of eligible employment.

Benefit:

One of the following options:

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

(b) Eligibility:

Less than 10 years of service.

Benefit:

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

6. Normal and Optional Forms of Payment:

Normal form of payment:

Monthly benefit for life with 50% of the benefit continuing for the life of the surviving spouse (if any).

Optional forms of payment:

- 100% joint and survivor annuity.
- Twenty-year certain and life annuity.
- Ten-year certain and life annuity.
- A partial lump sum payment in addition to one of the annuity options above.

BENEFIT PROVISIONS

An actuarially equivalent graduated benefit option with either a one percent or two percent increase to be applied the first day of January of each year. Not available for disability or early retirements or in combination with a partial lump sum option or a deferred normal retirement option.

7. **Final Average Salary:**

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

8. **Contributions:**

Member contributions as a percent of monthly salary: 13.30%

Member contributions earn interest at an annual rate of 7.50% compounded monthly.

State contributions as a percent of monthly salary for each participating member: 19.70%

Changes in Plan Provisions Since the Previous Valuation

There have been no changes in plan provisions since the previous valuation as of July 1, 2015.

Return Assumptions Attachment 4

July 14, 2017

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

Re: Retiree Health Insurance Credit Fund Projections (Based on Actuarial Valuation as of July 1, 2016) Under Alternate Economic Assumptions

Dear Members of the Board:

In accordance with your request, we have prepared projections of the actuarial valuation results for the North Dakota Retiree Health Insurance Credit Fund (RHIC) under the current actuarial assumptions used in the actuarial valuation as of July 1, 2016, and also under alternate economic actuarial assumptions, based on the actuarial valuation as of July 1, 2016.

Recommended Actuarial Assumptions

GRS recommends a discount rate/investment return assumption of 7.25 percent and changing from the Projected Unit Credit (PUC) to the Entry Age Normal (EAN) actuarial cost method for the RHIC funding valuation. The 7.25 percent investment return assumption recommendation is based on the asset allocation of the RHIC and capital market assumptions from a survey of investment consultants. The Entry Age Normal actuarial cost method is required to be used for accounting purposes under Governmental Accounting Standards Board Statement Number 74 and 75. GASB 74 is first effective for fiscal year ending June 30, 2017, and GASB 75 is first effective for fiscal year ending June 30, 2018. We recommend that the calculation of actuarial accrued liabilities be aligned for funding and accounting purposes.

Note that the actuarial assumptions and methods do not determine the ultimate cost of the plan to the employers. The ultimate employer cost of the plan will equal total benefits and expenses paid less investment income. The actuarial assumptions and methods determine the calculation of the liabilities (and the annual budgeting of contributions based on an actuarially determined funding policy). In order to maintain the fiscal health of the System, it is important to select actuarial assumptions that reflect realistic estimates of future investment returns and not be unnecessarily swayed by alternative actuarial assumptions that result in the more favorable funded ratio trends.

Projection Scenarios

The projections in this letter are based on the actuarial assumptions and methods shown on the following page.

Scenario	Discount Rate (Liabilities)	Investment Return*	Price Inflation	Payroll Growth (Amortization)	Asset Smoothing**	Actuarial Cost Method
July 1, 2016 Valuation	8.00%	8.00%	3.50%	4.50%	2016	Projected Unit Credit
Baseline	8.00%	8.00%	3.50%	4.50%	2017	Projected Unit Credit
Scenario 1a	7.50%	7.50%	2.50%	3.75%	2017	Projected Unit Credit
Scenario 1b	7.50%	7.50%	2.50%	3.75%	2017	Entry Age Normal
Scenario 2a	7.25%	7.25%	2.50%	3.75%	2017	Projected Unit Credit
Scenario 2b	7.25%	7.25%	2.50%	3.75%	2017	Entry Age Normal

* The estimated FY 2017 return is 11.7 percent as provided by NDPERS.

** The 2016 asset valuation (or smoothing) method:

- Immediately recognizes interest and dividends;
- Recognizes the total recognized and unrecognized appreciation or depreciation from the current year (net change in fair value of investments) over a five-year period; and
- Is biased toward the actuarial value of assets being lower than the market value of assets.

The 2017 asset valuation method:

- Smooths total investment gains or losses compared to the investment return assumption percent over a five-year period;
- Contains no bias; and
- No gain or loss will be generated if investment return assumption is earned and actuarial value of assets will equal market value of assets.

Projection Results

As shown in Graph I, RHIC is projected to reach a funded ratio of 100 percent under all sets of economic assumptions shown, assuming all assumptions are realized and an employer contribution rate of 1.14 percent continues to be made.

- In 2026 using an investment return assumption of 8.00 percent
- In 2027 using an investment return assumption of 7.50 percent
- In 2028 using an investment return assumption of 7.25 percent

As shown in Graph II, a change from the Projected Unit Credit to the Entry Age Normal actuarial cost method would result in an initial decrease in the funded ratio (from 58.3 percent to 56.7 percent under a 7.50 percent assumption and from 56.7 to 55.3 percent under a 7.25 percent assumption as of July 1, 2017). However, RHIC is projected to reach a funded ratio of 100 percent under all sets of economic assumptions shown (by 2029 or earlier).

Exhibits Provided

The following graphs provide additional information on the projected funded ratio for RHIC:

- Graph I: Comparison of Projected Funded Ratios for RHIC Under Alternate Economic Assumptions and the Projected Unit Credit Actuarial Cost Method
- Graph II: Comparison of Projected Funded Ratios for RHIC Under the Projected Unit Credit and Entry Age Normal Actuarial Cost Methods and Investment Return Assumptions of 7.50% and 7.25%

Disclosures and Additional Information

The actuarial assumptions used in this analysis are the same assumptions used in the actuarial valuation as of July 1, 2016, except for the specific changes in economic actuarial assumptions as noted. A summary of the actuarial assumptions from the July 1, 2016 actuarial valuation can be found in Appendix I of this letter.

A summary of the current benefit provisions can be found in Appendix II of this letter.

Future actuarial measurements may differ significantly from the current measurements presented in this cost analysis, 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; and changes in plan provisions, contribution amounts or applicable law.

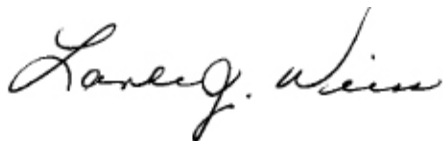
If any of the provisions, underlying data or assumptions used in this analysis appear to be incorrect or unreasonable, please let us know as soon as possible so we can update the analysis.

The signing actuaries are independent of the plan sponsor.

Lance J. Weiss and Amy Williams are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please let us know if you have any questions or would like to discuss the results of this analysis further.

Sincerely,

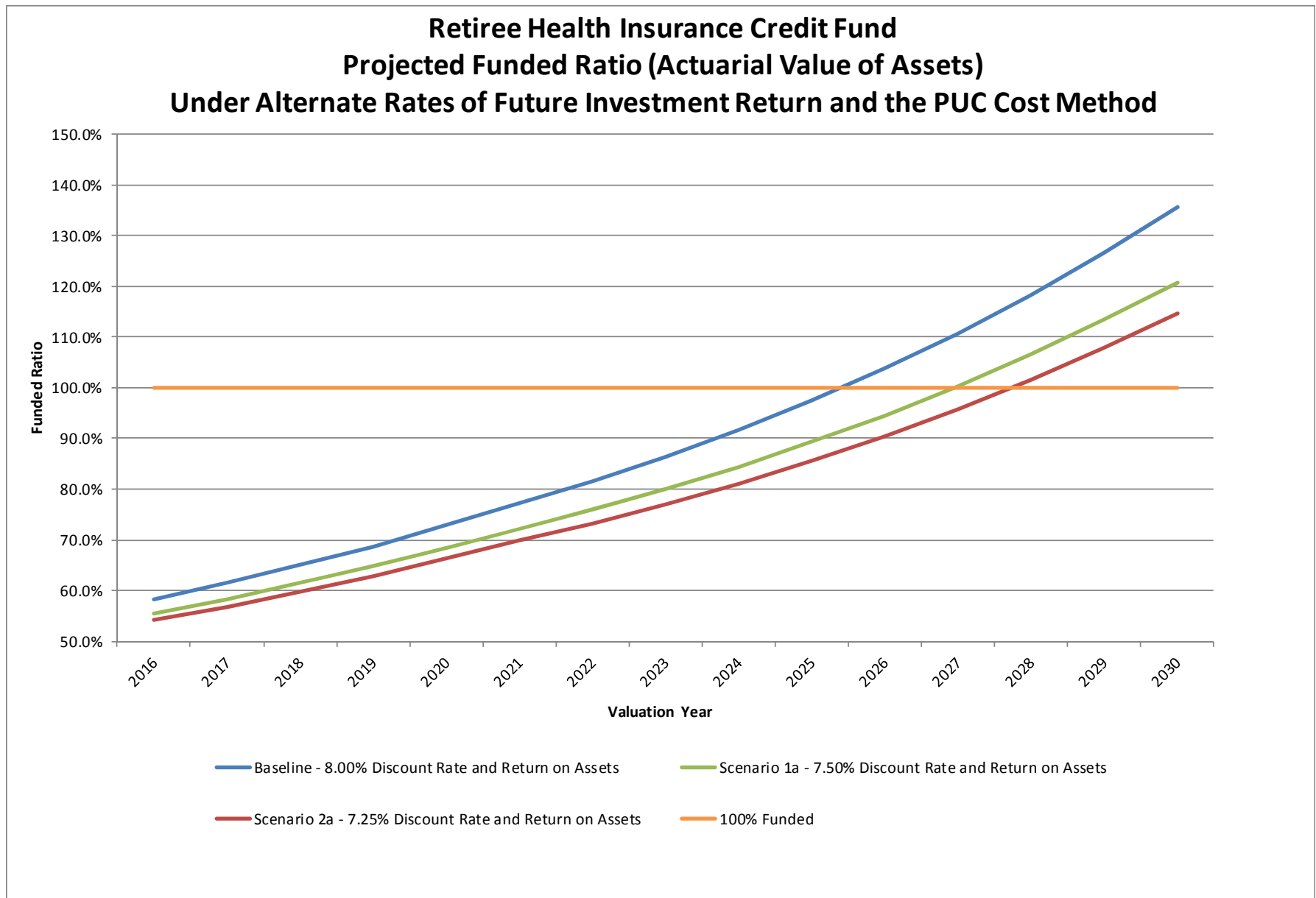


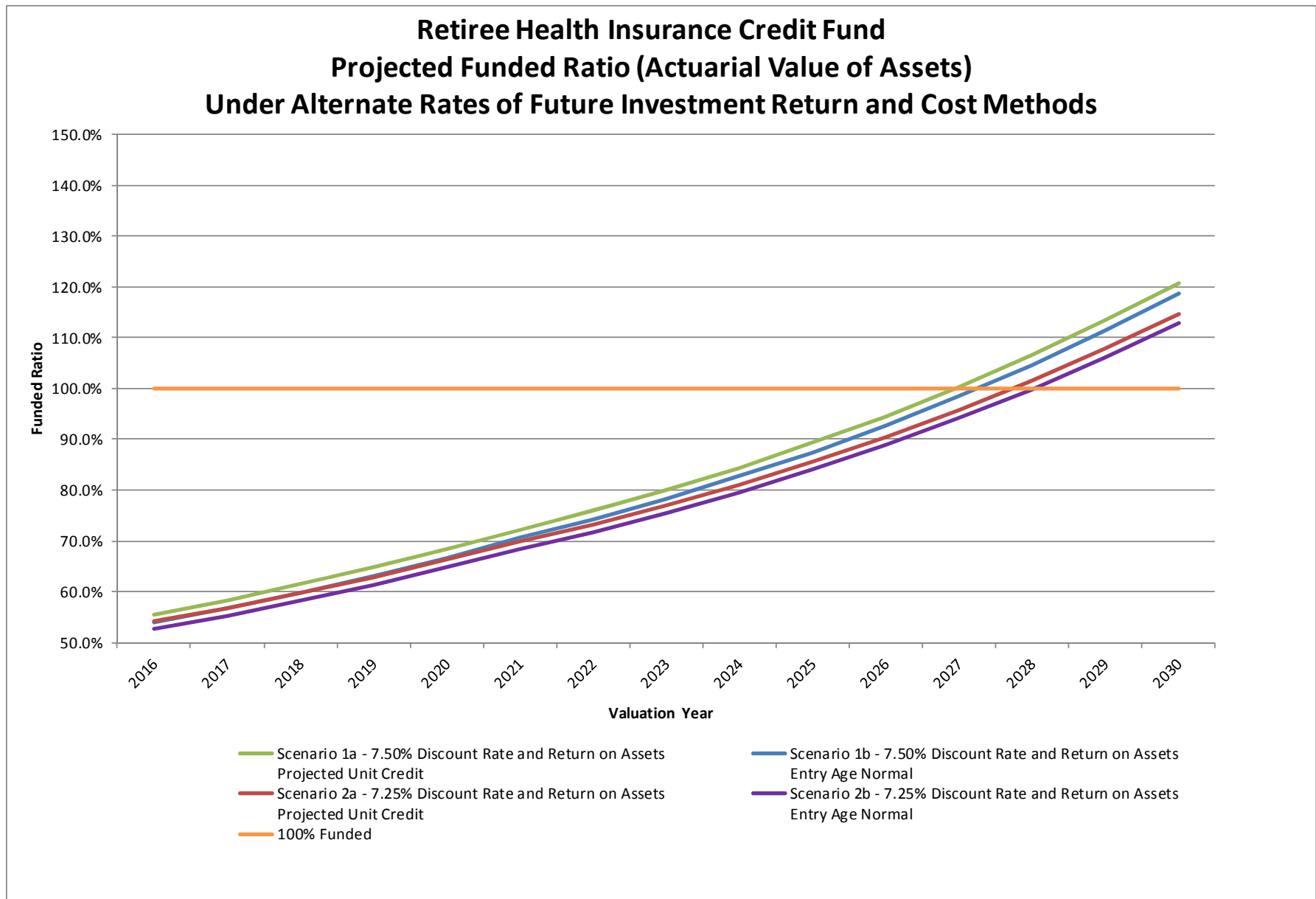
Lance J. Weiss, EA, MAAA, FCA
Senior Consultant and Team Leader



Amy Williams, ASA, MAAA, FCA
Consultant

cc: Mr. Sparb Collins, NDPERS
Mr. Bryan Reinhardt, NDPERS
Ms. Sharon Schiermeister, NDPERS
Mr. Alex Rivera, Gabriel, Roeder, Smith & Company
Ms. Kristen Brundirks, Gabriel, Roeder, Smith & Company
Mr. Neil Nguyen, Gabriel, Roeder, Smith & Company





ACTUARIAL VALUATION ASSUMPTIONS

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using the **Projected Unit Credit** actuarial cost method having the following characteristics:

- The normal cost for each individual active member equals the portion of the actuarial present value of projected benefits allocated to service earned during the current year.
- The actuarial accrued liability for each individual active member equals the portion of the actuarial present value of projected benefits allocated to service earned during prior plan years. The actuarial accrued liability for retired and inactive members equals the present value of benefits.

Financing of Unfunded Actuarial Accrued Liabilities. The unfunded actuarial accrued liability is amortized using 40-year closed (beginning July 1, 1990) level-percentage of pay amortization of the unfunded liability. The remaining amortization period is 14 years as of the actuarial valuation date.

Actuarial Value of Pension Plan Assets. The asset value is the actuarial value of assets which is calculated by recognizing 100 percent of the current year's interest and dividends and 20 percent of the current year and previous four years' total appreciation/(depreciation). The total appreciation/(depreciation) for a given year is fully recognized after a five year period.

The current asset valuation method has a systematic bias toward the actuarial value of assets being lower than the market value of assets.

Actuarial Valuation Assumptions

The contribution and benefit values of the Fund are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost method described above.

The principal areas of financial risk which require assumptions about future experiences are:

- Long-term rates of investment return to be generated by the assets of the Plan;
- Rates of mortality among members, retirees and beneficiaries;
- Rates of withdrawal of active members;
- Rates of disability among members; and
- The age patterns of actual retirement.

In an actuarial valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives; a period of time which can be as long as a century.

Actual experience of the Plan will not coincide exactly with assumed experience. Each actuarial valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

ACTUARIAL VALUATION ASSUMPTIONS (CONTINUED)

From time-to-time it becomes appropriate to modify one or more of the actuarial assumptions, to reflect experience trends (but not random year-to-year fluctuations). Thus, an experience review of the Retiree Health Insurance Credit Fund for the period July 1, 2009, to July 1, 2014, was performed to compare the demographic and economic experience against the actuarial assumptions used in the actuarial valuation. The actuarial assumptions described in this section were adopted by the Board for use beginning with the July 1, 2015, valuation. Additional information regarding the rationale for the assumptions may be found in the 2015 experience review report. **The experience review was performed by the prior actuary.** All actuarial assumptions are expectations of future experience, not current market measures.

The actuarial assumptions were provided by, and are the responsibility of, the NDPERS Board. GRS was unable to judge the reasonableness of the assumptions and methods without performing a substantial amount of additional work beyond the scope of the assignment, and did not do so.

ACTUARIAL VALUATION ASSUMPTIONS (CONTINUED)

Current Actuarial Valuation Assumptions and Methods

The same actuarial assumptions used to value pension benefits for the covered members are used in this actuarial valuation. The Main System actuarial assumptions are used for the covered members of the Defined Contribution Plan.

The assumed rate of investment return used was 8.00%, net of expenses, annually.

The assumed rate of price inflation is 3.50 percent.

No Cost of Living Adjustments (COLA) are provided to benefits recipients. Therefore, there is no COLA assumption for this valuation.

The rates of annual salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary.

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

Highway Patrol

Service At Beginning of Year	Increase Rate
0	15.00%
1	10.00%
2	8.00%
Age*	
Under 36	8.00%
36 - 40	7.50%
41 - 49	6.00%
50+	5.00%

**Age-based salary increase rates apply for employees with three or more years of service in the Main System and the Highway Patrolmen's Retirement System, five or more years of service in the Law Enforcement Systems and for all employees in the Judges System.*

ACTUARIAL VALUATION ASSUMPTIONS (CONTINUED)

The assumed rate of total payroll growth used in amortizing the unfunded liability as a level percentage of pay is 4.50 percent.

The mortality assumptions are as follows:

	Male Setback	Female Setback
RP-2000 Combined Healthy Mortality Table (healthy mortality)	2 years	3 years
RP-2000 Disabled Retiree Mortality Table (disabled post retirement)*	1 year	0 years

**Rates multiplied by 125 percent.*

To provide a margin for future mortality improvements, generational mortality improvements from the year 2014 using the Social Security Administration (SSA) 2014 Intermediate Cost scale were assumed.

ACTUARIAL VALUATION ASSUMPTIONS (CONTINUED)

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

Age	Healthy Mortality		Disabled Mortality	
	Future Life		Future Life	
	Expectancy (years) in 2016		Expectancy (years) in 2016	
	Men	Women	Men	Women
20	67.65	72.06	32.27	49.75
25	62.25	66.64	30.36	45.90
30	56.86	61.22	28.35	41.98
35	51.49	55.82	26.21	37.97
40	46.17	50.44	23.85	33.83
45	40.91	45.11	21.15	29.52
50	35.70	39.83	18.27	25.27
55	30.58	34.64	15.76	21.51
60	25.63	29.56	13.57	18.22
65	20.97	24.71	11.54	15.22
70	16.74	20.23	9.58	12.45
75	12.92	16.11	7.73	9.95
80	9.60	12.46	6.12	7.79
85	6.86	9.28	4.81	5.97
90	4.78	6.69	3.63	4.49
95	3.40	4.89	2.55	3.40
100	2.59	3.85	1.92	2.76
105	2.15	3.13	1.60	2.14

ACTUARIAL VALUATION ASSUMPTIONS (CONTINUED)

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 and Age-Based Rates For First Five Years of Service						
Service Beginning of Year	Main System			Law Enforcement		
	Age					
	Under 30	30-39	40+	Under 30	30-39	40+
0	22.00%	16.00%	12.00%	25.00%	20.00%	17.00%
1	18.00%	14.00%	10.00%	23.00%	17.00%	15.00%
2	16.00%	12.00%	10.00%	20.00%	15.00%	12.00%
3	14.00%	12.00%	8.00%	17.00%	13.00%	10.00%
4	14.00%	11.00%	7.00%	15.00%	11.00%	7.00%
Age	Age-Based Rates Only After First Five Years of Service					
	Main System			Law Enforcement		
20-24	8.80%			8.80%		
25-29	8.80%			8.80%		
30-34	5.50%			5.50%		
35-39	4.70%			4.70%		
40-44	3.90%			3.90%		
45-49	3.70%			3.70%		
50-54	3.40%			3.40%		
55-59	0.10%			0.10%		
60+	0.20%			0.20%		

No pre-retirement termination is assumed for Judges.

Withdrawal rates end upon eligibility for early retirement.

Early retirement eligibility is as follows:

Main System: Earlier of (i) age 55 and 3 years of service, and (ii) eligibility for Rule of 85. For members hired on or after 1/1/2016, earlier of (i) age 55 and 3 years of service, and (ii) eligibility for Rule of 90.

Law Enforcement: Age 50 and 3 years of service.

ACTUARIAL VALUATION ASSUMPTIONS (CONTINUED)

<i>Highway Patrol</i>	
Service Beginning of Year	Service and Age-Based Rates For First Five Years of Service
	Rates
0	10.00%
1	5.00%
2	5.00%
3	5.00%
4	5.00%
Age	Rates
Under 35	2.50%
35+	1.00%

Withdrawal rates end upon eligibility for early retirement.

Early retirement eligibility is as follows:

Highway Patrol: Age 50 and 10 years of service.

ACTUARIAL VALUATION ASSUMPTIONS (CONTINUED)

Rates of disability:

Before age 65: Males: 20% of OASDI disability incidence rates.
 Females: 10% of OASDI disability incidence rates.

Age 65 and later: 0.25% per year.

Rates of disability were as follows:

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

ACTUARIAL VALUATION ASSUMPTIONS (CONTINUED)

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

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

Highway Patrol

Age	Rates
50	20.00%
51	20.00%
52	20.00%
53	20.00%
54	20.00%
55+	100.00%

ACTUARIAL VALUATION ASSUMPTIONS (CONTINUED)

Assumed Service
Credit:

All active members (full time and part time) are assumed to earn one full year of service for each assumed future year of service.

Marital Status:

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

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

Form of Payment Election Assumption:

Form of Payment	Main System,		
	Law Enforcement	Judges	Highway Patrol
Life Annuity	50%	0%	0%
50% Joint and Survivor	45%	100%	100%
Refund of Member Contributions	5%	0%	0%

Benefits are valued without reduction for the optional form of payment.

Participation Rate

All eligible members are assumed to participate.

Benefit Service:

Exact fractional years of service are used to determine the amount of benefit payable.

Decrement Timing:

Retirement is assumed to occur at the beginning of the year. All decrements are assumed to occur at the middle of the year.

Decrement Operation:

Turnover decrements do not operate after the member reaches retirement eligibility (early or normal).

Eligibility Testing:

Eligibility for benefits is determined based upon the age nearest birthday and service on the date the decrement is assumed to occur.

ACTUARIAL VALUATION ASSUMPTIONS (CONTINUED)

Pay Increase Timing: Beginning of (fiscal) year.

Expenses: Assumed administrative expenses were added to the Normal Cost and are based on the prior year's expenses, adjusted for inflation. The assumed amount added to the Normal Cost is:

Expenses

Assumed FY 2016	\$ 225,619
Actual FY 2016	431,291
Assumed FY 2017	446,386

Assumptions for Missing or Incomplete Data: Active members with annualized salaries that are less than \$100 are assumed to have a salary equal \$44,911.

Changes in Valuation Assumptions and Methods Since the Previous Valuation

There have been no changes in actuarial valuation assumptions or methods since the previous actuarial valuation as of July 1, 2015.

BENEFIT PROVISIONS

This section summarizes the major benefit provisions of the North Dakota Public Employees Retirement System Retiree Health Insurance Credit Fund as included in the actuarial valuation. It is not intended to be, nor should it be, interpreted as a complete statement of all plan provisions.

1. **Covered Employees:**

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

2. **Eligibility:**

Receiving a periodic payment from the 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 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.

Benefit amount:

A monthly stipend equal to \$5.00 times service.

BENEFIT PROVISIONS (CONTINUED)

4. Early Retirement:

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.

5. Disability Retirement:

Age requirement:

None.

Service requirement:

Six months.

Other requirements:

As required by applicable pension plan.

Benefit amount:

Same as Normal Retirement Benefit.

BENEFIT PROVISIONS (CONTINUED)

6. 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.

7. 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 a 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.

8. Alternative Options:

If benefits from the member's Retirement System are paid under the 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.

Changes in Plan Provisions Since the Previous Valuation

There have been no changes in plan provisions since the previous actuarial valuation as of July 1, 2015.

February 27, 2017

Return Assumptions Attachment 5

Board Members
Retirement Plan for Employees of Job Service North Dakota
Bismarck, North Dakota

Re: Review of Potential Asset Allocation Change and Investment Return Assumption Change for the Job Service Plan

Board Members,

In accordance with your request, we have reviewed the information that was prepared by SEI Investments Management Corporation (SIMC) regarding a potential change in asset allocation for the Retirement Plan for Employees of Job Service North Dakota (Job Service or the Plan). The remainder of this letter provides GRS' thoughts on the potential change in asset allocation, the information provided by SIMC and related actuarial considerations.

The Job Service Plan was closed to new entrants on October 1, 1980, and, as of July 1, 2016, had nine remaining active members, one terminated member entitled to a future deferred benefit and 206 members receiving benefits from the plan. The average age of the nine active members is 61.6 and the average age of the 206 retirees is 75.1. Based on the actuarial valuation as of July 1, 2016, including an investment return assumption of 7.0 percent and a cost of living adjustment (COLA) assumption of 3.0 percent, the Plan was 132.0 percent funded based on the actuarial value of assets and 157.3 percent funded based on the market value of assets.

The current asset allocation for the Plan is 40 percent in equities and 60 percent in fixed income. The NDPERS investment subcommittee is considering alternate asset allocations, including Portfolio A in the SIMC presentation, which is comprised of 30 percent total equity and 70 percent total fixed income.

Based on results from the most recent actuarial valuation, approximately \$140 million in total benefits are projected to be paid from the Plan for all participants. Over 1/3 of the total benefits are projected to be paid within the next 10 years, over 1/2 of the total benefits are projected to be paid within the next 15 years and over 2/3 of the total benefits are projected to be paid within the next 20 years.

Given the maturity of the Plan, GRS recommends that the Board adopt an asset allocation that is consistent with the cash flow and liquidity requirements of the Plan. In addition, given (1) the older age of the covered group and therefore the shorter term duration of the liabilities and (2) the high funded status of the Plan (over 100 percent funded), the Board may wish to reduce the risk of the asset portfolio to reduce volatility and preserve the current surplus. GRS does not provide investment advice; however, given the characteristics of the Plan, GRS would concur with making a change in asset allocation to less risky assets.

SIMC provided the following return estimates for both the short-term and equilibrium, the standard deviation and the 5th percentile returns for the current and two alternate asset allocations.

Asset Class	%		
	Current	Portfolio A	Portfolio B
Total Equity	40	30	20
Total Fixed Income	60	70	80
Portfolio Metric (Net of Fees)			
Expected Return (Short Term)	5.0	4.7	4.3
Expected Return (Equilibrium)	7.0	6.7	6.4
Standard Deviation	7.5	6.6	5.7
Risk of Loss (5th percentile-Short Term)	-6.6	-5.6	-4.6

SIMC has calculated an estimated short-term expected return of 4.7 percent and an equilibrium expected return for Portfolio A of 6.7 percent. We do not see that SIMC has defined a time horizon for the short term or equilibrium.

GRS recommends that the investment return assumption used in the annual actuarial valuation be consistent with (1) the asset allocation adopted and (2) the duration of the liabilities. Considering the relatively short duration of the liabilities, we recommend an investment return assumption that is closer to the short term expected return, as compared to the equilibrium return developed by SIMC.

Another factor to consider is whether the asset allocation that is adopted is expected to be able to support the cash flow requirements of the Plan for the majority of the time period over which benefits will be paid. If the asset allocation is expected to have to change again in the future to support the cash flow requirements, this change should be considered in setting the investment return assumption which is used to discount all future benefits to a present value.

The SIMC presentation provided estimates of the Job Service valuation results as of July 1, 2016, based on alternate discount rates. These estimates are shown below (dollars in millions), along with estimates calculated by GRS.

Return Assumption/ Discount Rate	GRS Estimates		SIMC Estimates	
	Surplus	Funded Ratio	Surplus	Funded Ratio
7.00%	\$35.2	157.3%	\$35.2	157.3%
6.75%	\$33.7	153.7%	\$34.1	154.5%
6.50%	\$32.3	150.2%	\$33.0	151.8%
6.00%	\$29.1	143.2%	\$30.7	146.6%
5.00%	\$22.0	129.6%	\$25.9	136.6%
4.00%	\$13.6	116.3%	\$20.7	127.2%
3.00%	\$3.4	103.6%	\$15.1	118.6%

Although estimated liabilities calculated by GRS are higher than those estimated by SIMC (which produces a lower surplus and funded ratio), all results based on an investment return

assumption/discount rate as low as 3.0 percent result in a funded ratio higher than 100 percent and therefore a surplus.

If a change in asset allocation for the Plan is adopted by the Board, GRS recommends that a corresponding change to the investment return assumption/discount rate also be adopted. In addition, GRS recommends that the assumption should be based on an expected return for a time horizon that is consistent with the duration of the liabilities and future expected changes in the asset allocation.

This letter is being provided in order to highlight considerations related to a change in asset allocation for the Job Service Plan and a corresponding change to the investment return assumption that would be used in the annual actuarial valuation. We would be happy to provide additional analysis or information to aid the investment subcommittee and/or Board in reviewing this issue.

The signing actuaries are independent of the plan sponsor.

Lance J. Weiss and Amy Williams are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please let us know if you have any questions or would like to discuss this analysis further.

Sincerely,



Lance J. Weiss, EA, MAAA, FCA
Senior Consultant and Team Leader



Amy Williams, ASA, MAAA, FCA
Consultant

AW:rl

cc: Mr. Sparb Collins, NDPERS
Mr. Bryan Reinhardt, NDPERS



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Memorandum

TO: NDPERS Board
FROM: Kathy
DATE: August 7, 2017
SUBJECT: Part D Renewal

ESI/SHP has submitted its proposed premium increase for the EGWP Part D PDP which is included as Attachment 1. The current premium is \$90.32 per member per month (PMPM). The premium for the same plan design, formulary and network for 2018 is \$95.38 which is a 5.6% increase or \$5.06 PMPM.

The proposal contains several plan design options to mitigate the increase in premiums. In May, the Retiree Subcommittee reviewed these options and recommended to renew the existing plan design and not propose any changes at this time. The cover memo and minutes provided at the June Board Meeting are included as Attachment 2.

A review of the increase was conducted by Deloitte and is provided as Attachment 3. Deloitte indicated the 5.6% increase appears reasonable given expected trends.

Staff Recommendation

Staff agrees with the Retiree Subcommittee's Recommendation.

Board Action Requested

Approve the ESI Part D renewal.

NDPERS EGWP Premium

Part D Renewal Attachment 1

- The Current 2017 EGWP Premium is \$90.32.
- Premium amounts are estimated, and subject to change upon the release of direct subsidies by CMS.

2018 EGWP Plan Options

	Scenario 1: Current Plan Design, Formulary & Network	Scenario 2: Same as Current Plan Design, Formulary & Network. Add \$100 Deductible	Scenario 3: Same as Current Plan Design, Formulary & Network. Coverage Gap option is Generic Only	
Deductible	\$0	\$100	\$0	
Initial Coverage	Same as Current	Same as Current	Same as Current	
Coverage Gap	All	All	Generic Only	
2018 Premium Estimate PMPM*	\$95.38	\$90.27	\$85.26	
	Scenario 4: Same Plan Design & Network. Move to a Closed Formulary	Scenario 5: Same as Current Plan Design & Formulary. Move to a Preferred Network	Scenario 6: Current Network & Formulary. Move to CMS Defined Standard Plan Design.	Scenario 7: Current Network & Formulary. Implement 4th Tier Specialty Copay of 33%
Deductible	\$0	\$0	\$400	\$0
Initial Coverage	Same as Current	Same as Current	CMS Defined Standard (25%)	Same as Current
Coverage Gap	All	All	CMS Defined Standard Minimum	All
2018 Premium Estimate PMPM*	\$93.82	\$94.85	\$71.09	\$93.67



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

**Part D Renewal
Attachment 2**
Sparb Collins
Executive Director
(701) 328-3900
1-800-803-7377

FAX: (701) 328-3920 • EMAIL: NDPERS-info@nd.gov • <https://ndpers.nd.gov>

Memorandum

TO: NDPERS Board

FROM: Sparb & Bryan

DATE: June 22, 2017

SUBJECT: Retiree Subcommittee Meeting Update

The NDPERS Retiree Subcommittee met on May 5th. The presentation and minutes from the meeting are attached.

The group discussed the retirement and health plans. The committee looked at the potential changes and cost savings for the Part-D EGWP plan. They also discussed if the retiree plan should be unbundled or remain bundled. They decided to not recommend any changes to the plan at this time.

If you have any questions, we will be available at the NDPERS Board meeting.

NDPERS RETIREE BENEFITS COMMITTEE
May 5, 2017
MINUTES

* - Present

BOARD MEMBERS: *Yvonne Smith

STAFF: *Sparb Collins, *Bryan Reinhardt, *Kathy Allen, *Rebecca Fricke,
*MaryJo Steffes, *Aime Miller, *Sharon Schiermeister

Guests:

Interest Groups:

Membership Representatives:

*Dave Zentner, *Weldee Baetsch, *Bill Lardy, *Ron Leingang, *Danae Kautzman, *Curt Zimmerman

ND Capitol Ft. Totten Room

Minutes

10:00 – Sparb started the meeting and thanked everyone for coming. The presentation started with the retirement plan. The funded ratio is stable, but without the final year of the recovery contribution increase, it will not move to 100% funded status. The plan would move down with the change in the return assumption to 7.75%. The funding increase did not pass this legislative session. One new change is firefighters can now join the law enforcement plans.

The active health rates went up 17.4%, but after plan design changes and buying down premiums the State increase will be 9.8% for the biennium (Same for the Non-Medicare rates). The retiree health rates only increase on the medical side about 6.5% (Part-D increases are in January). The plan is buying down the rates by over 2% using reserves. The total increase will just over 2% for the next two years (Additional increases may come in January of each year depending on the Medicare Part-D renewals).

The group discussed the changes and potential cost savings for the Part-D EGWP plan. The group discussed if the plan should be unbundled or remain bundled with the medical plan. There are advantages/disadvantages to both. Adverse selection is a big unknown and potential problem. At the prior meeting the group discussed surveying the membership. The group discussed the survey questions developed by staff. The topic is complicated and getting the best wording is difficult. It was noted that Federal changes could happen. The committee decided to wait and not do a survey of the membership. These topics could be communicated in the newsletters and the retirement kit.

The group discussed the retirement plan and funding. Sharon discussed the NDPERS budget reductions and the move toward more electronic communications and payments. There were no other questions or issues.

11:30 – Adjourn

Part D Renewal

Attachment 3

From: Partida, Megan (US - Chicago)
Sent: Thursday, August 3, 2017 5:55 PM
To: Johnson, Josh (US - Minneapolis) <jkjohnson@deloitte.com>; Collender, Brian M (US - Chicago) <bcollender@deloitte.com>
Subject: RE: 2018 EGWP Plan Designs and Estimated Premium Options

Hi Josh,

The provided file doesn't give us much to go on but my initial thoughts are below:

2017 Rate: \$90.32

2018 Plan Design	2018 Rate	Increase
1) Current design, network & formulary	\$95.38	5.6%
2) Add \$100 deductible	\$90.27	-0.1%
3) Coverage gap generic only	\$85.26	-5.6%
4) Change to a closed formulary	\$93.82	3.9%
5) Change to a preferred network	\$94.85	5.0%
6) Change to CMS Defined Standard	\$71.09	-21.3%
7) Change 4th tier Specialty to 33%	\$93.67	3.7%

- The increase in Scenario #1 of 5.6% keeping constant plan design, network and formulary appears reasonable given expected trends. While CMS trends are lower (see last bullet below) I wouldn't expect ESI and others pricing plans to be so optimistic on trend.
 - Last year this increase was 10.2%.
 - The 2018 rates are likely built from 2016 actual claims data which would already have some of the large impact specialty drugs included, allowing for lower trend assumption.
- The national average monthly bid amount for Part D coverage decreased to \$57.93 from \$61.08 in 2017, and the Part D base beneficiary premium decreased to \$35.02 from \$35.63 in 2017.
- CMS announced an annual 2017 trend on Medicare Part D payments of 3.94%, however, prior year trend was overestimated by 2.62%, yielding an expected 2017 increase of 1.22%.

If we had more time to review the methodology and assumptions we would be better positioned to comment on the 5.6% increase based on actual base data used, projection factors, rebates, UM, etc.

Thanks!

Megan

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Memorandum

TO: NDPERS Board
FROM: Transition Committee
DATE: August 11, 2017
SUBJECT: RFP

The Transition committee will give an update at this meeting on its efforts.

Attached is an RFP for a search for a recruiting firm for the Executive Director position. We will go over this at the meeting. Please note:

1. RFP Schedule – Section 1.3
2. Scope of work – Section 3.1
3. Mandatory requirement – Section 3.8
4. Evaluation process – Section 5.5 & 7.11
5. Review and decision process page 35
6. Type of contract. Cost Proposal

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SECTION ONE - INTRODUCTION AND INSTRUCTIONS

1.1 Purpose of the RFP

The North Dakota Public Employees Retirement System (NDPERS), through its search committee, seeks a qualified independent contractor with expertise in executive recruitment services, specifically, with previous experience with the recruitment of public retirement and benefit professionals responsible for administration of defined benefit plans, defined contribution plans, health plans including other ancillary benefits (dental, vision, EAP, life and flex plans), and to identify/evaluate qualified candidates to fill the position of Executive Director.

1.2 Contact Person, Telephone, Fax, E-mail

NDPERS has established a point of contact for this RFP. All vendor communications regarding this RFP must be directed to this person. Unauthorized contact regarding the RFP with other State employees or NDPERS Board members may result in the vendor being disqualified.

NDPERS Project Director/ Point of Contact:

Bryan Reinhardt

PHONE: 701-328-3919

E-MAIL: breinhar@nd.gov

1.3 RFP Schedule

This schedule of events represents NDPERS's best estimate of the schedule that will be followed for this RFP.

The approximate RFP schedule is as follows:

- RFP Issued: August 15, 2017
- Deadline for receipt of questions related to RFP: August 24, 2017 at 5:00 PM CT
- Responses to questions/ RFP amendments (if required): August 29, 2017
- Proposals due by: September 7, 2017 at 5:00 PM CT
- Oral presentations to NDPERS Board: September 21, 2017
- NDPERS Board anticipates award of the contract on September 21, 2017. However, if follow-up questions are required it could be as late as October 19, 2017
- Contract start approximately: September 25, 2017 unless additional follow-up is required, then start date would be around October 19, 2017

1.4 Return Mailing Address and Deadline for Receipt of Proposals

Offerors must submit five (5) copies of its proposal in a sealed envelope or package. Offerors must submit an electronic copy of their proposal.

Cost proposals are to be submitted in a separate sealed envelope or package, clearly labeled "cost proposal."

Envelopes or packages containing proposals must be clearly addressed as described below to ensure proper delivery. Envelopes or packages must be addressed as follows:

**North Dakota Public Employees Retirement System
Request for Proposal (RFP): Executive Recruitment Services
400 East Broadway Avenue, Suite 505
Bismarck, ND 58502-1657**

Proposals must be received by NDPERS at the location specified no later than the date/time listed in the RFP Schedule.

Proposals may not be delivered orally, by facsimile transmission, by other telecommunication or electronic means. Offerors may fax or electronically transmit signed proposals to a third party who must deliver the proposal to the location indicated above by the date and time designated as the deadline for receipt of proposals.

Offerors assume the risk of the method of dispatch chosen. NDPERS assumes no responsibility for delays caused by any delivery service. Postmarking by the due date will not substitute for actual proposal receipt by NDPERS. An offeror's failure to submit its proposal prior to the deadline may cause the proposal to be rejected.

1.5 Assistance to Offerors with a Disability

Offerors with a disability that need an accommodation should contact NDPERS point of contact prior to the deadline for receipt of proposals so that reasonable accommodation can be made.

1.6 Deadline for Receipt of Questions and Objections

Offerors must carefully review this solicitation, the contract, risk management provisions, and all attachments. All questions must be in writing and directed to the NDPERS point of contact. The NDPERS point of contact must receive these written question by the deadline specified in the RFP Schedule of Events.

If the question may be answered by directing the questioner to a specific section of the RFP, then the NDPERS point of contact may answer the question over the telephone. Other questions must be submitted in writing by the deadline specified in the RFP Schedule of Events. Oral communication is considered unofficial and non-binding on NDPERS.

1.7 Pre-proposal Conference

No pre-proposal conference will be held for this RFP. Offerors are advised to carefully review the RFP and all attachments and submit all questions to the NDPERS point of contact by the deadline indicated for submission of questions in the schedule of events.

1.8 Amendments to the RFP

If an amendment to this RFP is issued, it will be provided to all offerors who were notified of the RFP and to those that have requested a copy of the RFP from the NDPERS point of contact. Amendments will also be posted to the NDPERS Website at <https://ndpers.nd.gov/about/bid-opportunities/>

1.9 News Releases

News releases related to this RFP will not be made without prior approval of the NDPERS point of contact.

1.10 Letter of Interest

Vendors interested in receiving any notices related to this RFP are invited to contact the NDPERS point of contact with the name of their firm, contact person, mailing address, telephone number, fax number, and e-mail address. The sole purpose of the letter of interest is to provide NDPERS with a contact person to receive any notices related to the RFP. Submission of a letter of interest is not a requirement for submitting a proposal.

SECTION TWO - BACKGROUND INFORMATION

2.1 Background Information

The North Dakota Public Employees Retirement System is responsible for the administration of NDPERS's retirement, health, life, dental, vision, deferred compensation, flex comp, retiree health insurance credit, long term care and EAP programs.

NDPERS is managed by a Board comprised of nine members:

- (1) Chairman - appointed by the Governor
- (1) Member - appointed by the Attorney General
- (1) Member - elected by retirees
- (3) Members - elected by active employees
- (1) State Health Officer or designee
- (2) Members - appointed by Legislative Management

NDPERS is a separate agency created under North Dakota state statute and, while subject to state budgetary controls and procedures as are all state agencies, is not a state agency subject to direct executive control.

The Executive Director is responsible for the administration of the following programs:

A. Defined Benefit Retirement Plans:

The PERS system (includes the main system, judges, and public safety plans), the Job Service Plan and the Highway Patrol Plan are defined benefit plans and provide benefits under two separate chapters of the North Dakota Century Code (N.D.C.C). N.D.C.C. § 54-52 provides the benefits under the PERS, Judges, and Public Safety Retirement Plans. N.D.C.C. § 39-03.1 provides the benefits under the Highway Patrol Retirement Plan. The Job Service Retirement Plan benefits are provided pursuant to that systems plan document. A summary of the plan provisions is found on the NDPERS website.

1. Public Employees Retirement System

a. Main System

This is the retirement plan for all state employees (excluding those in the Board of Higher Education eligible for TIAA/CREF), and employees of counties, cities and school districts (excluding teachers) which have elected to participate. The following is background information on the main system:

Public Employees Retirement Plan

Chapter 54-52, NDCC

Employer Contribution: 7.12%
Employee Contribution: 7.00%
Total Retirement Contributions: 14.12%

Vesting in Disability Benefit: 180 days
Vesting in Retirement Benefit: 36 months
Normal Retirement: Age 65 or Rule of 85

Retirement Formula:

Final Average Salary x 2% x Years of Credited Service

Example:

$\$2000 \times 2\% \times 20 = \800

b. Judges

The Supreme and District Court Judges in North Dakota, although a part of the PERS system, have a separate benefit program. The following is background information on the judges system:

Public Employees Retirement Plan-Judge's

Chapter 54-52, NDCC

Employer Contribution: 16.52%
Employee Contribution: 7.00%
Total Retirement Contributions: 23.52%

Vesting in Disability Benefit: 180 days
Vesting In Retirement Benefit: 60 months
Normal Retirement: Age 65 or Rule of 85

First Ten Years:

Final Average Salary x 3.5% x First 10 Years of Credited Service

Second Ten Years:

Final Average Salary x 2.80% x Second 10 Years of Credited Service

Remaining Years:

Final Average Salary x 1.25% x Remaining Years of Credited Service

Example: $\$6861 \times 3.50\% \times 10 = \2401.35

$\$6861 \times 2.80\% \times 10 = \1921.08

$\$6861 \times 1.25\% \times 5 = \underline{\$428.80}$

$\$4751.23$

c. Public Safety Plan with Prior Service & without Prior Service

These are also a part of the PERS system but with a separate level of benefits. For actuarial purposes this group is divided into two groups, one with prior service and the other without prior service. The following is background information on the Public Safety Plans:

With Prior Service:

- Employee Contribution
 - 5.50%
- Current Employer Groups
 - 10.31% Employer Contribution
 - Contribution based on Normal Cost and past service credit liability

Without Prior Service:

- Employee Contribution
 - 5.50%
- Current Employer Groups
 - 8.43% Employer Contribution
 - Contribution based on Normal Cost and no past service credit liability

The only difference from benefit structure in the Main Retirement Plan is these plans provide for an earlier normal retirement date – age 55.

2. Highway Patrol

The North Dakota Highway Patrol Plan is administered by NDPERS as a separate plan of benefits. The following is background information on the Highway Patrol system:

Chapter 39-03.1, NDCC

Employer Contribution: 16.7% of covered payroll

Employee Contribution: 10.3% of salary

Total Retirement Contribution: 27.0%

Vesting In Disability Benefit: 180 days

Vesting in Retirement Benefit: 120 months

Normal Retirement: Age 55 or Rule of 80

Retirement Formula:

First 25 Years:

Final Average Salary x 3.60% x First 25 Years

Remaining Years:

Final Average Salary x 1.75% x Remaining Years

Example: $\$3000.92 \times 3.60\% \times 25 = \$2,700.83^*$

3. Job Service Retirement Plan

The Job Service Retirement Plan was transferred to NDPERS to administer on August 1, 2003 and is a closed retirement plan. The following is background information on the plan:

Employer Contribution: 0% of covered payroll

Employee Contribution: 7% of salary

Total Retirement Contribution: 7%

Vesting In Disability Benefit: 5 years

Vesting in Retirement Benefit: 5 years

Normal Retirement: Age 65

Age 62 with 5 years

Age 60 with 20 years

Age 55 with 30 years

Retirement Formula:

First 5 Years:

Final Average Salary x 1.50% x First 25 Years

Next 5 Years:

Final Average Salary x 1.75% x next 5 Years

Remaining Years

Final Average Salary x 2% x Remaining Years

B. NDPERS Section 457 IRS Deferred Compensation Plan and Defined Contribution Plan:

1. Deferred Compensation Plan

The administration of the Deferred Compensation Plan for public employees was given to the Retirement Board on July 1, 1987. All state employees are eligible to participate, as well as political subdivision employees, if the

governing authority of the political subdivision elects to have the state plan as their deferred compensation plan.

Presently 6,500 employees have accounts with fifteen investment providers. Assets are approximately \$185 million. The Retirement Board has developed a plan and contracts with investment providers (mainly insurance companies) to invest the contributions of employees.

The Deferred Compensation Plan is found in N.D.C.C. § 54-52.2.

2. Defined Contribution Plan

The defined Contribution Plan was created by the 1998 Legislature as an alternate retirement plan to the defined benefit plan for non-classified state employees. Approximately 40% of the non-classified employees have elected to leave the defined benefit plan and join the defined contribution plan. The plan is currently open to new non-classified state employees to make an election at employment. The plan has approximately \$11 million in assets and is presently contracted with TIAA for recordkeeping and investments.

The defined contribution plan is found in N.D.C.C. § 54-52.6.

C. NDPERS Retiree Health Insurance Credit Program:

The Retiree Health Insurance Credit program was implemented on July 1, 1989. This program provides for a payment towards a retiree's medical, dental, vision or long term care insurance premiums. Eligible members are the PERS, Judges (including judges who retired under N.D.C.C. § 27-17), Public Safety, and Highway Patrol retirees. The Retiree Health Insurance Credit program is found in N.D.C.C. § 54-52.1. The following is background information on the retiree health program:

BENEFIT FORMULA:

\$5.00 for each year of credited service

Example: $\$5.00 \times 25 = \125.00

CONTRIBUTION

1.14% of payroll

D. NDPERS FlexComp Program – Section 125

NDPERS administers the State's 125 flexcomp program. This program offers employees the opportunity to pretax medical, dependent care and certain insurance premiums.

E. Group Insurance

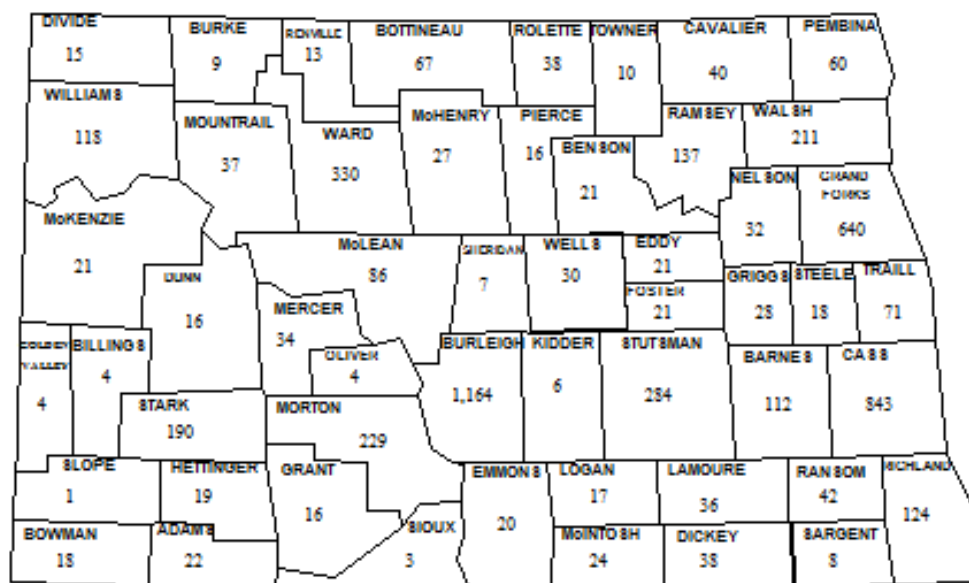
1. Group Health:

The Uniform Group Health Insurance Plan is a fully insured plan with Sanford Health Plan. All state employees are eligible to be covered under the plan,

including the professional staff at colleges and universities. Political subdivisions may participate in the health plan at their option. Estimated premiums for this biennium (2017-2019) will be approximately \$750,000,000 for about 29,500 contracts. The following map shows the members of the plan and their geographic distribution:

NDPERS Medicare Retiree Health Contracts

July 2016

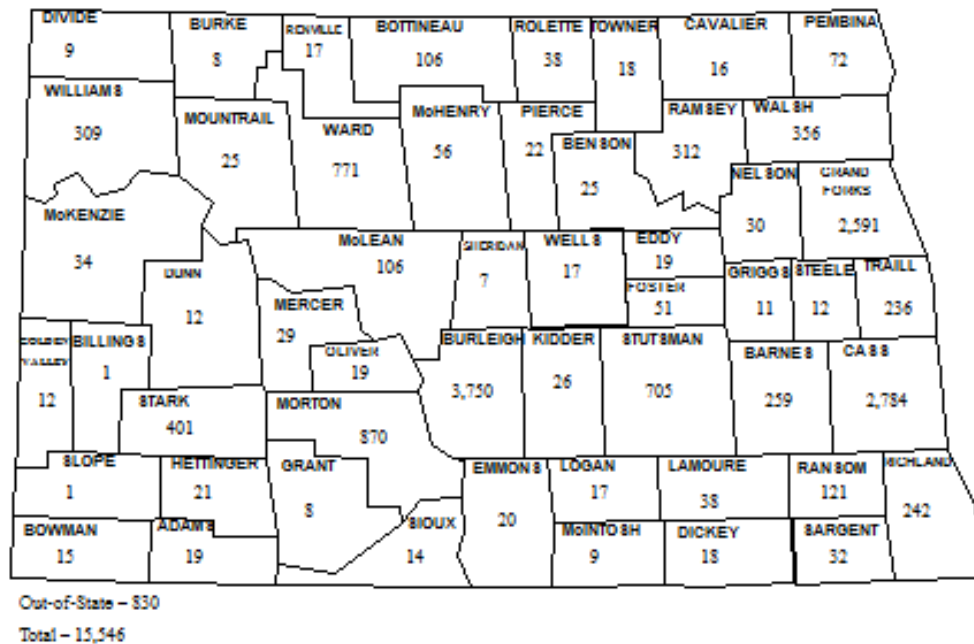


Out-of-State - 1,031

Total - 6,433

NDPERS State Active Employees

April 2016



In addition NDPERS administers a Part D plan for retirees. This coverage is presently with ESI.

2. Group Life:

The Uniform Group Life Insurance Plan is a fully insured plan underwritten by Voya. All state employees are covered under the plan, including the professional staff at colleges and universities. Political subdivisions may participate in the life plan at their option.

The Uniform Group Health and Life Insurance programs are under N.D.C.C. §54-52.1.

3. Dental:

The Uniform Group Dental Plan is a voluntary plan which is fully insured by Delta Dental. The following is history of the plan:

- ☐ Started in 1997
- ☐ Fully insured with Reliastar
- ☐ Moved to Cigna
- ☐ Available to state employees and retirees
- ☐ Now fully insured with Delta Dental
 - ☐ Moved to Delta in 2013; bid was 2012 (9 bidders)
 - ☐ Accepted final renewal with Delta in June
- ☐ Plan will go to bid in first quarter of 2018

The following is the participation levels in the plan (the boards goal is to continue to meet the needs of the members in this area and the vision plan).

	2012	2013	2014	2015	2016	2017
Dental Plan	6,725	7,374	7,908	8,628	9,334	9,862
Contracts						

4. Vision:

The Uniform Group Vision Plan is fully insured by Superior Vision.

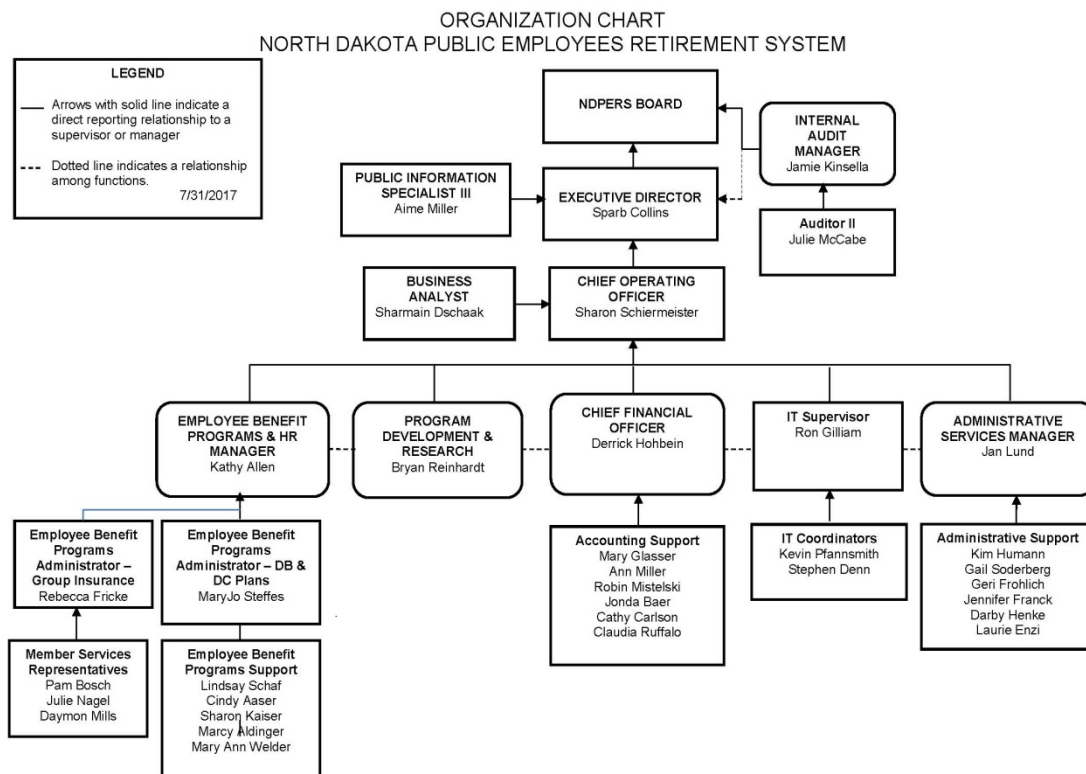
- Started in 1997 - Ameritas
- Went to bid in 2010 changed carriers to Superior Vision
- Bid awarded to Superior in 2017 to 2023
- Enrollment has increase from 8300 in 2013 to almost 11,000 in 2017

5. Employee Assistance Program (EAP)

The 1997 North Dakota Legislature authorized NDPERS to administer an employer-sponsored EAP for all state employees, effective August 1, 1997. NDPERS has contracted with four EAP vendors to provide services to employees and their families. Approximately 15,770 state employees are covered under this program.

Current Structure:

The agency organization chart is:

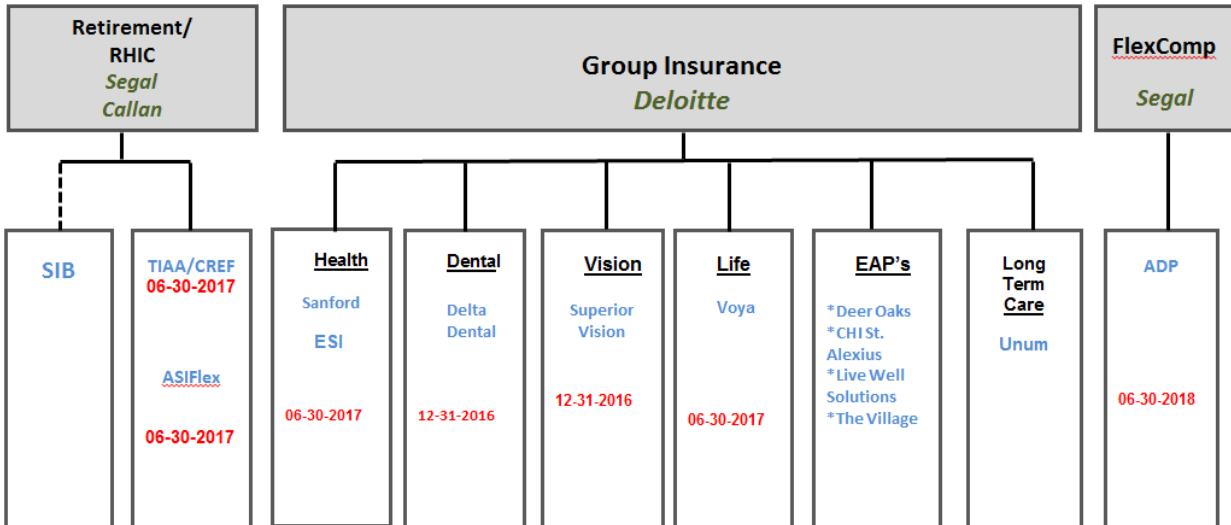


The following chart shows the vendors and consultants for NDPERS for which the Executive Director will have oversight:

North Dakota Public Employees Retirement System

Vendors and Consultants

- 2016-17 -

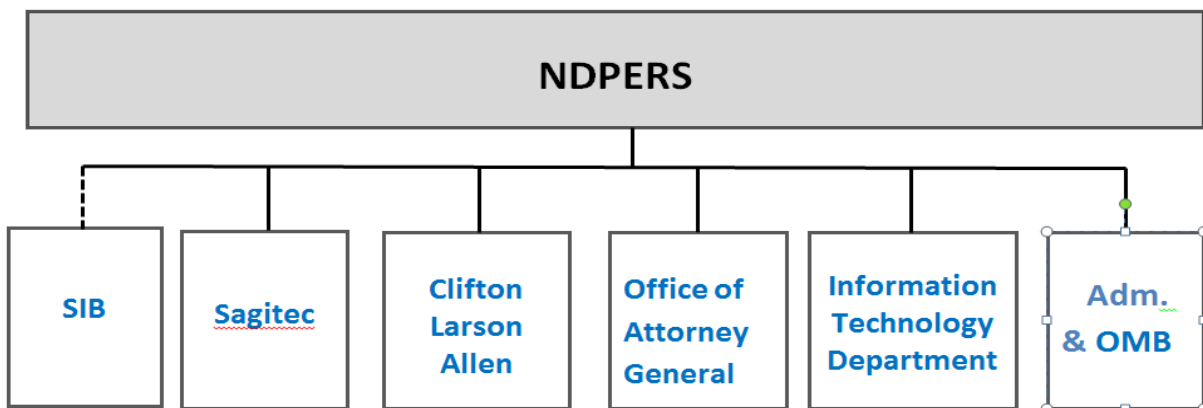


The following chart shows the NDPERS business partners that the Executive Director will need to coordinate with in moving the agencies priorities forward:

North Dakota Public Employees Retirement System

Business Partners

2016 - 2017



SECTION THREE – SCOPE OF WORK

3.1 Scope of Work

The Contractor shall provide NDPERS with executive recruiting services to fulfill the purpose of this RFP, including:

- Assistance in identifying desired skills and qualifications;
- Assistance with preparation of a search timeline;
- Identification and recruitment of local and nationwide candidates;
- Candidate appraisals, reference checks, mining of public domain information on the Internet, interviews and preparation of experience summaries, and in-depth evaluations;
- Development and implementation of a process to narrow the candidate list;
- Assist in the development of the interview questions used by the search committee with the narrowed candidate list;
- Assistance with arrangements for search committee interviews;
- Responsible for finalists' background checks;
- Assist the State in conducting Criminal Background Checks;
- Assistance with arrangements for and interviews by the Board;
- Assistance negotiating a compensation package and employment terms and other customary or requested assistance in connection with the search;
- Provide NDPERS with progress reports.

3.2 Employment Guarantee

Offerors must guarantee continued employment of the individual hired for a minimum of one year, preferably two years. If the individual leaves prior to the employment guarantee timeframe from the date of hire, the Offeror must reengage in one equivalent replacement search on an expenses-only basis (no additional fee), unless the candidate's departure has been caused by significant changes in reporting structure or responsibility. The State will not reimburse the contractor for expenses exceeding the maximum specified amount unless the contractor obtains prior written approval from NDPERS in an amendment to the contract.

3.3 Open Records

North Dakota is an open meetings and open records state. Upon award, all proposals will become public record, open and accessible to the public upon request (Ref. RFP sections 4.18 and 7.10). All employment applications, nominations, reference letters and other documents received or created by Board members, NDPERS employees, search committee members or their agents in connection with this search are public records. Meetings of the search committee and Board generally are open to the public; notice of meetings and posting of agenda are required. NDPERS will work with the Contractor to respond to any open records requests.

3.4 Location of Work

The Contractor shall determine the extent of on-site work required to fulfill stated requirements.

3.5 State Furnished Property/Services

NDPERS will provide access to office personnel, documents and data as required by the Contractor. If the Contractor is conducting on-site work in Bismarck, NDPERS will provide the Contractor with a reasonable amount of office space. NDPERS will also provide the Contractor with access to copy and fax machines.

3.6 Contractor Furnished Property/Services

The Contractor must furnish all labor, equipment, specialized software and supplies.

3.7 Experience and Qualifications

In order for offers to be considered responsive, offerors must meet the mandatory qualification. An offeror's failure to meet this mandatory qualification will cause its proposal to be considered non-responsive and its proposal will be rejected.

3.8 Mandatory Requirement

The Offeror must have expertise in executive recruitment services. Previous experience with the recruitment of public/private fund executives and public/private benefit administration professionals is preferred.

Offerors must provide three (3) references from organizations where they provided similar executive search services, within the last five (5) years, as required by this RFP. References for Public Sector clients for whom similar searches were performed are preferred. Contact information for references should include contact names, addresses, telephone numbers, and valid email addresses. NDPERS reserves the right to contact any references provided by the offeror. Offerors are invited to provide letters of reference from previous clients.

SECTION FOUR - GENERAL CONTRACT INFORMATION

4.1 Contract Term, Extension and Renewal Options

NDPERS intends to enter into a contract with an effective date beginning approximately Sept 25, 2017. The contract term will be for a period of approximately one year after completion of the work effort, due to the employment guarantee.

NDPERS reserves the right to extend the contract period for an additional period of time, not to exceed six months, beyond the normal expiration date of the contract, upon mutual written agreement by both parties.

4.2 Contract Type

Compensation under this contract will be a fixed fee (e.g. fixed cost), plus expenses. NDPERS will not reimburse the contractor for expenses exceeding the maximum specified amount unless the contractor obtains prior written approval from NDPERS in an amendment to the contract.

4.3 Standard Contract Provisions

The successful Offeror will be required to sign and submit the contract (Attachment C). The contractor must comply with the contract provisions set out in this attachment. Any objections to the contract provisions must be set out in the Offeror's proposal. No alteration of these provisions will be permitted without prior written approval from the purchasing agency.

Offerors are instructed to contact the procurement officer in writing by the deadline set for questions with any concerns regarding the contract provisions.

4.4 Proposal as a Part of the Contract

Part or all of this RFP and the successful proposal may be incorporated into the contract.

4.5 Additional Terms and Conditions

NDPERS reserves the right to add, delete, or modify terms and conditions during contract negotiations. These terms and conditions will be within the scope of the RFP and will not affect the proposal evaluations.

4.6 Supplemental Terms and Conditions

Proposals including supplemental terms and conditions will be accepted, but supplemental conditions that conflict with those contained in this RFP or that diminish NDPERS's right's under any contract resulting from the RFP will be considered null and void. NDPERS is not responsible for identifying conflicting supplemental terms and conditions before issuing a contract award. After award of contract:

- (a) if conflict arises between a supplemental term or condition included in the proposal and a term or condition of the RFP, the term or condition of the RFP will prevail; and

- (b) if NDPERS's rights would be diminished as a result of application of a supplemental term or condition included in the proposal, the supplemental term or condition will be considered null and void.

4.7 Contract Approval

This RFP does not, by itself, obligate NDPERS. NDPERS's obligation will commence when NDPERS approves the contract. Upon written notice to the contractor, NDPERS may set a different starting date for the contract. NDPERS will not be responsible for any work done by the contractor, even work done in good faith, if it occurs prior to the contract start date set by NDPERS.

4.8 Contract Changes - Unanticipated Amendments

During the course of this contract, the contractor may be required to perform additional work. That work will be within the general scope of the initial contract. When additional work is required, the project manager designated by NDPERS will provide the contractor a written description of the additional work and request the contractor to submit a firm time schedule for accomplishing the additional work and a firm price for the additional work. Cost and pricing data must be provided to justify the cost of amendments.

The contractor will not commence additional work until the project director has secured any required State approvals necessary for the amendment and issued a written contract amendment, approved by the purchasing agency.

4.9 Indemnification and Insurance Requirements

Offerors must review the contract attached to this RFP (Attachment C) for indemnification and insurance requirements.

Objections to any of the provisions of the Indemnification and Insurance Requirements must be made in writing to NDPERS and contained in the proposal.

4.10 Taxes and Taxpayer Identification

The contractor must provide a valid Vendor Tax Identification Number as a provision of the contract.

NDPERS is not responsible for and will not pay local, state, or federal taxes. NDPERS sales tax exemption number is E-2001, and certificates will be furnished upon request by the purchasing agency.

A contractor performing any contract, including service contracts, for the United States Government, State of North Dakota, counties, cities, school districts, park board or any other political subdivisions within North Dakota is not exempt from payment of sales or use tax on material and supplies used or consumed in carrying out contracts. In these cases, the contractor is required to file returns and pay sales and use tax just as required for contracts with private parties. Contact the North Dakota Tax Department at 701-328-1246 or visit its website at www.nd.gov/tax/ for more information.

A contractor performing any contract, including a service contract, within North Dakota is also subject to the corporation income tax, individual income tax, and withholding tax reporting requirements, whether the contract is performed by a corporation, partnership, or other business entity, or as an employee of the contractor. In the case of employees performing the services in the state, the contractor is required to withhold state income tax from the employees' compensation and remit to the state as required by law. Contact the North Dakota Tax Department at 701-328-1248 or visit its web site for more information

4.11 Proposed Payment Procedures

NDPERS will make payments based on a negotiated payment schedule based on the completion of progress. Each billing must consist of an invoice and progress report. No payment will be made until the progress report has been submitted and the project director has approved invoice. NDPERS will not make any advanced payments before performance by the contractor under this contract NDPERS will withhold 25% from each billing for services until the NDPERS project director (same as the NDPERS point of contact) has indicated the project has been satisfactorily completed. The project director will make such determination within 60 days after the contractor has written to the project director that they believe they have completed the project.

NDPERS shall reimburse contractor for expenses related to travel at amounts not to exceed those outlined below:

- 1) **Lodging:** reimbursement shall not exceed the then-current, published GSA rate for the travel location. Copies of receipts are required for lodging reimbursement. NDPERS shall not reimburse for incidental and miscellaneous expenses charged to the room, including alcohol, telephone charges, or entertainment (e.g., movies)
- 2) **Transportation:** Air travel shall be reimbursed by NDPERS at the actual cost of air fare for coach class travel only. Contractor shall make air travel arrangements at least fourteen (14) days in advance whenever possible. Reimbursement for rented, chartered, or contracted vehicle transportation shall be limited to reasonable rates as determined by NDPERS.
- 3) **Meals:** Meals shall be paid on a per diem basis for each day of travel at then-current, published GSA per diem rate for the travel location. Per diem for the first and last day of travel shall be paid at seventy-five percent (75%) of the GSA per diem rate. Requests for per diem payments must include the start and end dates of travel, the location where the services are performed, and the allowable per diem amount for each trip on the billing/invoice.

Payment for any travel expenses that exceed the travel budget as agreed upon by the parties must be approved by NDPERS.

4.12 Contract Funding

Approval or continuation of a contract resulting from this solicitation is contingent upon continuing appropriation. The contract may be terminated by NDPERS or

modified by agreement of both parties in the event funding from federal, state, or other sources is not obtained and continued at sufficient levels.

4.13 Payment Terms

No payment will be made until NDPERS approves the contract. Payment for commodities and services received under contracts will normally be made within 60 calendar days after receipt and acceptance by NDPERS or after receipt of a correct invoice, whichever is later.

4.14 Contract Personnel

The project manager designated by NDPERS must approve any change of the contractor's project team members named in the proposal, in advance and in writing. Personnel changes that are not approved by NDPERS may be grounds for NDPERS to terminate the contract.

4.15 Right to Inspect Place of Business

At reasonable times, NDPERS may inspect those areas of the contractor's place of business that are related to the performance of a contract. If NDPERS makes an inspection, the contractor must provide reasonable assistance.

4.16 Inspection & Modification - Reimbursement for Unacceptable Deliverables

The contractor is responsible for the completion of all work set out in the contract. All work is subject to inspection, evaluation, and approval by the project manager designated by NDPERS. NDPERS may employ all reasonable means to ensure that the work is progressing and being performed in compliance with the contract. Should the project manager determine that corrections or modifications are necessary in order to accomplish its intent; the project manager may direct the contractor to make changes. The contractor will not unreasonably withhold changes.

Substantial failure of the contractor to perform the contract may cause NDPERS to terminate the contract. In this event, NDPERS may require the contractor to reimburse monies paid (based on the identified portion of unacceptable work received) and may seek associated damages.

4.17 Termination for Default

If the project manager designated by NDPERS determines that the contractor has refused to perform the work or has failed to perform the work with diligence as to ensure its timely and accurate completion, NDPERS may, by providing written notice to the contractor, terminate the contractor's right to proceed with part or all of the remaining work.

This clause does not restrict the NDPERS right to termination under the contract provisions of the Service Contract, attached.

4.18 Open Records Laws - Confidentiality

Any records that are obtained or generated by the contractor under this contract are subject to North Dakota open records law regarding public records and handling of confidential information.

4.19 Work Product, Equipment, and Material

All work product, equipment or materials created or purchased under this contract belong to NDPERS and must be delivered to State at State's request upon termination of this contract, unless otherwise agreed in writing by NDPERS.

4.20 Independent Entity

The contractor is an independent entity under this contract and is not a State employee for any purpose. The contractor retains sole and absolute discretion in the manner and means of carrying out the contractor's activities and responsibilities under the contract, except to the extent specified in the contract.

4.21 Assignment

Contractor may not assign or otherwise transfer or delegate any right or duty without the express written consent of NDPERS. However, the contractor may enter into subcontracts provided that the subcontract acknowledges the binding nature of this contract and incorporates this contract, including any attachments.

4.22 Disputes - Applicable Law and Venue

Any dispute arising out of this agreement will be resolved under the laws of the State of North Dakota.

SECTION FIVE - EVALUATION CRITERIA AND CONTRACTOR SELECTION

THE TOTAL NUMBER OF POINTS USED TO SCORE THIS CONTRACT IS 100 for the first stage of the evaluation

5.1 Executive Recruitment Strategy

Thirty-five Percent (35%) of the total possible evaluation points will be assigned to this criterion (35 points). Proposals will be evaluated against the questions as set out below:

- a) Does the executive recruitment strategy depict a logical approach to accomplishing the RFP scope of work?
- b) How well does the strategy serve to assist NDPERS in identifying desired skills, qualifications, and an overall position profile?
- c) Does the timeline prepared by the firm meet the needs of NDPERS to timely complete the selection process?
- d) How well does the strategy serve to provide nationwide and local search/recruitment activities to solicit applicants?
- e) How well does the strategy service the coordination of on-site interviews, reference checks, and composition of candidate appraisals?
- f) How comprehensive are the background checks conducted by the firm?
- g) How does the firm propose to provide NDPERS search committee with progress reports?
- h) Is the organization of the firm's recruitment team clear and logical?
- i) How does the proposal address pertinent issues and potential problems related to the recruitment, such as not being able to fill the position, selected candidate declining, or successful candidate resigning shortly after beginning work, etc.?
- j) Is the proposal practical, feasible, and within budget?

5.2 Experience and Qualifications

Thirty five Percent (35%) of the total possible points will be assigned to this criterion

(35 points).

If the RFP required a minimum amount of experience or qualifications, no points will be awarded for meeting the minimum. Points will be awarded for experience and qualifications that exceed NDPERS minimums. Proposals will be evaluated against the questions as set out below:

Questions regarding the personnel:

- a) Do the individuals meet the mandatory requirement stated in 3.8 of the RFP?
- b) Do the individuals assigned to the recruitment team have experience providing recruitment services for similar public fund executives and benefit administration professionals?
- c) Are resumes complete and do they demonstrate backgrounds that would be desirable for individuals engaged in the work this RFP requires?
- d) How extensive is the applicable education and experience of the personnel designated to work on the project?
- e) Have the personnel demonstrated a network of public and private fund and benefit administration professional contacts and resources for the purposes of locating candidates for this position?
- f) Do the personnel assigned to this project display technological acumen in recruitment programs and software used to complete the scope of work?

Questions regarding the firm:

- g) Does the firm meet the mandatory requirement stated in 3.8 of the RFP?
- h) Has the firm demonstrated experience in completing similar projects satisfactorily and timely?
- i) Did the firm perform satisfactory based on reference checks?
- j) Does the firm have an established network of public and private fund and benefit administration professional contacts and resources for the purposes of locating candidates for this position?
- k) If a subcontractor will perform work on the project, how well does it measure up to the evaluation used for the offeror?

5.3 Contract Cost

Thirty Percent (30%) of the total possible evaluation points will be assigned to cost (30 points).

NDPERS will evaluate the total proposed cost which includes the proposed 1) fixed fee and 2) total of estimated expenses.

The lowest cost proposal will receive the maximum number of points allocated to cost. The point allocations for cost on the other proposals will be evaluated according to the method set forth below:

Weight 30 **Percent**. Maximum Point Value for
this Section 100 Points x **30 Percent= 30 Points**

5.4 Oral Presentations

After the initial evaluation of proposals received, offerors whose proposals receive the highest scores and are determined to be reasonably susceptible for award may be required to make an oral presentation to the NDPERS Board on September 21, 2017.

The Contractor's lead recruiter and other team members that will be assigned to the project must make arrangements to present to the evaluation committee in Bismarck, North Dakota.

Offerors will be responsible for all costs associated with providing the presentation.

5.5 Review

The purpose of this review is to assess the consultant's understanding of the work requirements, capabilities and resources. It is important that your proposals relate your understanding of the proposal requirements in this section and in the format in Section 6 in order to be rated. A statement that you will comply with the RFP is not sufficient, nor is repeating the RFP requirements.

The first stage of the evaluation will be a review based upon the points assigned above by the NDPERS staff review team. This finding will be reported to the NDPERS Board Transition Committee and NDPERS Board. Offerors who are finalists should plan to attend the September 21, 2017 NDPERS Board meeting for a finalist presentation. . The Board retains the option to make the final selection based upon not only the proposals, staff review and presentation but all other factors' it deems applicable to deciding what firm should be awarded the contract.

SECTION SIX- PROPOSAL FORMAT AND CONTENT

6.1 Proposal Format and Content

NDPERS discourages overly lengthy and costly proposals; however, in order for NDPERS to evaluate proposals fairly and completely, offerors must follow the format set out in this RFP and provide all information requested.

Offerors must provide the following separate sections when submitting their proposals:

- 1) Technical Proposal composed of an "executive recruitment strategy section," and an "experience and qualifications section."
- 2) Cost Proposal in accordance with section 6.7.

6.2 Introduction

Proposals must include the complete name and address of offeror's firm and the name, mailing address, and telephone number of the person NDPERS should contact regarding the proposal.

Proposals must confirm that the offeror will comply with all provisions in this RFP. The proposal must disclose any instances where the firm or any individuals working on the contract has a possible conflict of interest and, if so, the nature of that conflict (e.g. employed by the State of North Dakota).

Proposals must be signed by a company officer empowered to bind the company. An offeror's failure to include these items in the proposals may cause the proposal to be determined to be non-responsive and the proposal may be rejected.

6.3 Executive Recruitment Strategy

Offerors must provide a comprehensive Executive Recruitment Strategy that details the approach being proposed to accomplish the scope of work set forth in Section 3.1 of this RFP. In responding the proposal shall have the following sections:

1. Offerors must provide comprehensive narrative statement that set out the recruitment strategy it intends to employ to accomplish the purpose of the RFP. Offerors must illustrate how the proposed approach will serve to accomplish the scope of work.
2. Offer shall discuss the strategy in #1 will identify and attract the desired skills and qualifications for candidates for the position
3. Offer shall identify project tasks as discussed in #1 and present a timeline for each task
4. Discuss your recruitment strategy at a national and state level.
5. Discuss your strategy and assistance in coordination of on-site interviews reference checks and candidate appraisals (discuss in detail the type of analysis the Board will receive and if possible provide a sample). How many hours does your proposal anticipate that your firm will provide this effort?
6. Discuss your process for background checks.

7. What type of progress reporting will you provide to NDPERS (monthly, etc.)?
8. Identify and describe the team you are assigning to this project including their responsibilities and experience.
9. Describe what you see are the pertinent issues and potential problems related to this recruitment and how you plan to address them.

6.4 Experience and Qualifications Personnel

Offeror's must provide information specific to the experience and qualifications of each person on the Recruitment Team who will perform the work called for in section 3.1 of this RFP, including:

- a) Title;
- b) Resume, and or narrative description of experience, education and qualifications;
- c) Technological acumen in recruitment programs and software used to complete the scope of work;
- d) Description of professional experience related to the recruitment of public and private fund executives and benefit administration professionals;
- e) Lead consultant contact information;
- f) Describe the proposed teams network of public and private industry contacts and resources that would be applicable to this project;
- g) Professional certifications, licenses, and permits, if required by federal, state, or local law, to publicly perform recruitment services identified in the Contractor's work strategy.

Personnel experience and qualifications will be evaluated using the criteria in RFP section 5.2.

6.5 Firm

Offerors must provide information specific to the experience and qualifications of the firm that will perform the work called for in section 3.1 of this RFP, including:

- a) The experience of their firm in recruitment of public fund executives and benefit administration professionals.
- b) List of similar recruitment projects, including those for local or state governments, and private sector companies. Provide contact information and references for previous clients with recruitment services similar to this project. NDPERS reserves the right to contact any references the offeror provides.
- c) Certification that the firm meets the requirement to be independent and without conflicts related to NDPERS.
- d) Demonstration of a network of national public and private fund and benefit administration industry contacts and resources for purposes of locating candidates for this position.
- e) Offerors must provide three (3) references from organizations where they provided similar executive search services, within the last five (5) years, as required by this RFP. Public Sector references for whom you have provided similar searches are preferred. Contact information for references should include contact names, addresses, telephone numbers, and valid email

addresses. NDPERS reserves the right to contact any references provided by the offeror. Offerors are invited to provide letters of reference from previous clients.

The firms experience and qualifications will be evaluated using the criteria in RFP section 5.2.

6.6 Subcontractors

If an offeror intends to use subcontractors, the offeror must identify in the proposal the names of the subcontractors and the portions of the work the subcontractors will perform. All subcontractors identified in the proposal who will perform work under the contract must meet or exceed all requirements of this RFP.

6.7 Cost Proposal

Offerors must review RFP Section 4.2 "Contract Type" and 5.3 "Contract Cost." The cost proposal must identify:

- 1) The fixed fee for the proposed services (e.g. fixed cost).
- 2) The total estimated expenses based upon the proposed recruitment strategy, including a detailed description of those expenses.

The total estimated expenses will establish the maximum amount for expenses in the Contract. NDPERS will not reimburse the Contractor for expenses exceeding that amount, unless the Contractor obtains prior written approval from NDPERS in an amendment to the Contract.

All costs associated with the contract must be stated in U.S. currency. Any commodities being imported must be identified, and the price must include any applicable customs, brokerage agency fees, and duties.

Offerors should describe any discount terms for prompt payment. Discounts for prompt payment will not be considered in evaluating cost.

6.8 Supplemental Terms

Offerors may include any supplemental terms and conditions in accordance with section 4.6 of the RFP.

SECTION SEVEN - STANDARD PROPOSAL INFORMATION

7.1 Authorized Signature

An individual authorized to bind the offeror to the provisions of the RFP must sign all proposals.

7.2 State Not Responsible for Preparation Costs

NDPERS will not pay any cost associated with the preparation, submittal, presentation, or evaluation of any proposal.

7.3 Conflict of Interest

Offerors must disclose any instances where the firm or any individuals working on the contract has a possible conflict of interest and, if so, the nature of that conflict (e.g. employed by the State of North Dakota, previous or present relationship with any of the vendors NDPERS uses, has not had conversations relating to this RFP with NDPERS staff or trustees except as provided in the RFP, etc.). If you do have items that you are not sure would be a conflict please identify them in a separately marked attachment to the cost proposal. . NDPERS reserves the right to cancel the award if any interest disclosed from any source could either give the appearance of a conflict or cause speculation as to the objectivity of the offeror's proposal. NDPERS's determination regarding any questions of conflict of interest is final.

7.4 Offeror's Certification

By signature on the proposal, an offeror certifies that it complies with:

- a) the laws of the State of North Dakota;
- b) North Dakota Administrative Code;
- c) all applicable local, state, and federal laws, code, and regulations;
- d) the applicable portion of the Federal Civil Rights Act of 1964;
- e) the Equal Employment Opportunity Act and the regulations issued by the federal government;
- f) the Americans with Disabilities Act of 1990 and the regulations issued by the federal government;
- g) all terms, conditions, and requirements set forth in this RFP;
- h) a condition that the proposal submitted was independently arrived at, without collusion;
- i) a condition that the offer will remain open and valid for the period indicated in this solicitation; and
- j) a condition that the firm and any individuals working on the contract do not have a possible conflict of interest (7.3 above)

If any offeror fails to comply with the provisions stated in this paragraph, NDPERS reserves the right to reject the proposal, terminate the contract, or consider the contractor in default.

7.5 Offer Held firm

Proposals must remain open and valid for at least 90 days from the deadline

specified for submission of proposals. In the event award is not made within 90 days NDPERS will send a written request to all offerors deemed susceptible for award asking offerors to hold their price firm for a longer specified period of time.

7.6 Amendments to Proposals and Withdrawals of Proposals

Offerors may amend or withdraw proposals prior to the deadline set for receipt of proposals. No amendments will be accepted after the deadline unless they are in response to NDPERS's request. After the deadline, offerors may make a written request to withdraw proposals. .

7.7 Alternate Proposals

Offerors may submit only one proposal for evaluation. Alternate proposals (proposals that offer something different than what is requested) will be rejected.

7.8 Subcontractors

Subcontractors may be used to perform work under this contract. If an offeror intends to use subcontractors, the offeror must identify in the proposal the names of the subcontractors and the portions of the work the subcontractors will perform as follows:

- (a) complete name of the subcontractor;
- (b) complete address of the subcontractor;
- (c) type of work the subcontractor will be performing;
- (d) percentage of work the subcontractor will be providing;
- (e) evidence, as set out in the relevant section of this RFP, that the subcontractor is registered and, if applicable, holds a valid North Dakota business license; and
- (f) a written statement, signed by each proposed subcontractor that clearly verifies that the subcontractor is committed to render the services required by the contract.

An offeror's failure to provide this information, within the time set, may cause NDPERS to consider its proposal non-responsive and reject it. The substitution of one subcontractor for another may be made only at the discretion and prior written approval of NDPERS's procurement officer or project manager designated by NDPERS.

7.9 Joint Ventures

Joint ventures will not be allowed.

7.10 Disclosure of Proposal Contents and Compliance with North Dakota Open Records Laws

All proposals and other material submitted become the property of NDPERS and may be returned only at NDPERS's option. All proposals and related information, including detailed cost information, are exempt records and will be held in confidence until an award is made, in accordance with N.D.C.C. § 54-44.4-10(2).

Offerors may make a written request that trade secrets and other proprietary data contained in proposals be held confidential. Material considered confidential by the offeror must be clearly identified, and the offeror must include a brief statement that sets out the reasons for confidentiality. See the North Dakota Office of the Attorney General website for additional information <https://attorneygeneral.nd.gov/open-records-meetings>.

After award, proposals will be subject to the North Dakota open records law. Records are closed or confidential only if specifically stated in law. If a request for public information is received, the procurement officer, in consultation with the Office of the Attorney General, will determine whether the information is an exception to the North Dakota open records law, and the information will be processed appropriately.

7.11 Evaluation of Proposals

All proposals will be reviewed to determine if they are responsive to the requirements of this solicitation and meet the requirements in Section 3.8. Proposals deemed not responsive and not meeting the requirements will not be evaluated pursuant to section 5.5.

7.12 Right of Rejection

NDPERS reserves the right to reject any proposals, in whole or in part. NDPERS may reject any proposal that is not responsive to all of the material and substantial terms, conditions, and performance requirements of the RFP.

Offerors may not qualify the proposal nor restrict the rights of NDPERS. If an offeror does so, the NDPERS may determine the proposal to be a non-responsive counter-offer and the proposal may be rejected.

The NDPERS point of contact may waive minor informalities that:

- do not affect responsiveness;
- are merely a matter of form or format;
- do not change the relative standing or otherwise prejudice other offers;
- do not change the meaning or scope of the RFP;
- are insignificant, negligible, or immaterial in nature;
- do not reflect a material change in the work; or
- do not constitute a substantial reservation against a requirement or provision.

NDPERS reserves the right to reject any proposal determined to be not responsive, and to reject the proposal of an offeror determined to be not responsible. NDPERS also reserves the right to refrain from making an award if it determines it to be in its best interest.

7.13 Clarification of Offers

In order to determine if a proposal is reasonably susceptible for award,

communications by the NDPERS point of contact or the proposal evaluation committee are permitted with an offeror to clarify uncertainties or eliminate confusion concerning the contents of a proposal and determine responsiveness to the RFP requirements. Clarifications may not result in a material or substantive change to the proposal. The initial evaluation may be adjusted because of a clarification under this section.

After receipt of proposals, if there is a need for any substantial clarification or material change in the RFP, an amendment will be issued. The amendment will incorporate the clarification or change, and a new date and time established for new or amended proposals. Evaluations may be adjusted as a result of receiving new or amended proposals.

7.14 Discussions and Best and Final Offers

NDPERS may conduct discussions or request best and final offers with offerors that have submitted proposals determined to be reasonably susceptible for award. NDPERS is not obligated to do so, therefore, vendors should submit their best terms (cost and technical). The purpose of these discussions is to ensure full understanding of the requirements of the RFP and the offeror's proposal.

Offerors with a disability needing accommodation should contact the procurement officer prior to the date set for discussions so that reasonable accommodation can be made.

7.15 Contract Negotiation

After final evaluation, NDPERS may negotiate with the offeror. If contract negotiations are commenced, they will be held via conference call or at a location in Bismarck, North Dakota as a site to be determined.

If contract negotiations are held, the offeror will be responsible for all costs including its travel and per diem expenses.

7.16 Failure to Negotiate

If the selected offeror:

- fails to provide the information required to begin negotiations in a timely manner;
- fails to negotiate in good faith;
- indicates it cannot perform the contract within the budgeted funds available for the project; or
- if the offeror and NDPERS, after a good faith effort, cannot come to terms,

NDPERS may terminate negotiations with the offeror initially selected and commence negotiations with another firm.

7.17 Proposal Evaluation

In evaluating the proposals, price will not be the sole factor. The NDPERS Board may consider any factors it deems necessary and proper, including but not limited to, price; quality of service; response to this request; experience; staffing; and general reputation.

7.17 Failure to meet all procurement policies

The failure to meet all procurement policy requirements shall not automatically invalidate a proposal or procurement. The final decision rests with the NDPERS Board.

SECTION EIGHT - ATTACHMENTS

8.1 Attachments

All attachments posted with solicitation on the State Procurement Office website:
<https://www.nd.gov/omb/agency/procurement>

Attachment A - Current Position Description

Attachment B - Service Contract

Attachment C – NDPERS Comprehensive Annual Financial Report

Attachment A

Executive Director

North Dakota Public Employees Retirement System Position Description

Summary of Responsibilities

The Executive Director reports to a nine member Board of Trustees and is responsible for day-to-day administration/direction of all programs delegated by state law to the Public Employees Retirement System (PERS), which are: the Defined Benefit retirement programs for public employees, judges, national guard and the highway patrol; the Defined Contribution plans including the 401(A) and 457 plans, including the PERS Companion Plan; the Group Health, Life, Dental and Long Term Care insurance programs; the state FlexComp program and the state's Employee Assistance Program. The Executive Director also serves as the Board's representative with the members, employee and retiree organizations, the Legislature, other state agencies, the administration, national organizations, the press and the public.

PERS has 34 staff and an administrative budget of \$3 million per year. The agency has six major function areas: Finance and Data Processing, Research/Planning, Benefits, Administrative Services, Legal and Internal Audit. The managers, or primary staff, of each of these areas report to the Director. The agency pays out over \$120 million per year in retirement payments and over \$350 million per year in group insurance premiums. The agency has more than \$2.5 billion in funds in the Defined Benefit and Defined Contribution trusts, \$120 million in the Deferred Comp program, and \$100 million in the Retiree Health Trust. The Director oversees the activities of the health and retirement actuarial consulting firm, the group life, health, dental and long-term care vendors, 11 deferred comp vendors, and the 401(a) plan provider.

Duties and Responsibilities

The Executive Director is responsible for planning, organizing and managing the activities of PERS in accordance with the policies established by the Board of Trustees under the statutes and rules governing PERS. Key responsibilities of the Executive Director include:

- Recruiting staff.
- Managing the day-to-day activities of PERS staff.
- Working closely with the Board of Trustees and the Board's subcommittees, which include the following committees: Investment, Audit and Benefits.
- Representing PERS in national retirement organizations.
- Representing PERS as appropriate before state and federal legislatures.

- Ensuring that objectives established by the Board of Trustees in its strategic long-range plan are achieved.
- Ensuring that PERS operates efficiently.
- Evaluating performance of the immediate staff reporting to the Director and General Counsel.
- Ensuring that PERS complies with all applicable laws.
- Ensuring that PERS maintains an effective public relations strategy; overseeing communication with, and communicating with, the media regarding PERS issues.
- Ensuring that the following general principles, under which the Board sets policy and the staff operates, are complied with:
 - ◆ Providing excellent service to PERS members and retirees.
 - ◆ Maintaining high ethical and fiduciary standards in policy development and fund operations.
 - ◆ Preserving the financial integrity of the funds.
 - ◆ Maintaining actuarial soundness, while balancing the cost of benefits between present and future members and employers.
 - ◆ Participating actively in the benefits industry.
- Building and maintaining effective relationships to strengthen the efforts of the system.
- Planning monthly board meetings.
- Conducting elections for vacant board positions in accordance with the rules of the Board.
- Maintain an understanding of employee benefit plan qualification requirements under the Internal Revenue Code, and other state and federal laws and regulations.
- Monitor program compliance and activities and regularly report to the Board regarding plan qualification and other issues affecting the agency and plans it administers, including making recommendations for adjustments as circumstances require.
- Develop, recommend and implement goals and objectives designed to achieve the mission statement established by the Board.
- Develop budget requests regarding staffing, equipment and other requirements upon which the budget is based for consideration by

the Board, the Governor and the Legislature.

- Develop and recommend legislation relating to programs administered by the agency, and serve as the agency's chief spokesperson with the Legislature.

Minimum
Qualifications

Requires a Bachelors Degree, preferably a Masters Degree in business or public administration, and five years of management experience in retirement or health insurance programs. Two of the five years must involve significant supervisory and budget experience. In addition, experience in flexible spending programs and other group insurance programs is desirable.

Desirable Knowledge,
Skills and Abilities

The Executive Director shall have:

- Demonstrated dedication to customer service, including the desire and ability to make this an organizational mentality.
- Excellent oral, written and listening communication skills, including strong presentation skills.
- Proven management experience, including the ability to hire, motivate, develop and delegate to a strong senior staff.
- The highest level of character and integrity; combined with a strong sense of fiduciary duty.
- Understanding of the legislative process and the necessary political skills to work successfully with legislators.
- Demonstrated ability to work well with a Board, using an inclusive style and consensus orientation.
- The ability to develop and communicate a vision, combined with strong strategic skills.
- A belief in and commitment to, full disclosure of information (including uncomfortable information) to the Board, as well as dealing even-handedly with all board members.
- Sensitivity to the concerns of all PERS members, and a commitment to dealing fairly with all.
- Flexibility and adaptability, including a willingness to hear and act on uncomfortable information.
- Be a Certified Employee Benefits Specialist (CEBS), Certified Financial Analyst (CFA), Certified Retirement Administrator (CRA), Certified Financial Planner (CFP) or other applicable designation.

Attachment B - OFFER

AGREEMENT FOR SERVICES

The parties to this Agreement for Services are (hereinafter CONTRACTOR) and the State of North Dakota acting through its Public Employees Retirement System (hereinafter NDPERS). The terms of this Contract shall constitute the consulting services agreement (hereinafter "Agreement" of "Contract").

CONTRACTOR and NDPERS agree to the following:

- 1) **SCOPE OF SERVICES:** CONTRACTOR agrees to provide the services as specified in the RFP and proposal. The terms and conditions of the RFP and the proposal are hereby incorporated as part of the Contract.
- 2) **TERM:** This Agreement shall be for the period Sept 25, 2017 through June 30, 2018. Subject to the written agreement by PERS and the CONTRACTOR, this Agreement may be extended for two additional two-year periods.
- 3) **FEES:** NDPERS shall only pay pursuant to the terms in the RFP.
- 4) **BILLINGS:** The CONTRACTOR shall receive payment from NDPERS upon the completion of the services identified in the respective invoice. The CONTRACTOR shall bill NDPERS monthly in arrears for Services rendered and expenses incurred in accordance with the terms in Section 4.11.
- 5) **TERMINATION:**

Termination without Cause: Either party may terminate this agreement with respect to tasks yet to be performed with thirty (30) days written notice mailed to the other party. Upon any termination the CONTRACTOR shall be compensated as described in Exhibit A performed up to the date of termination.

Termination for Lack of Funding or Authority: NDPERS by written notice to CONTRACTOR, may terminate the whole or any part of this Contract under any of the following conditions:

- 1) If funding from federal, state, or other sources is not obtained and continued at levels sufficient to allow for purchase of the services or supplies in the indicated quantities or term.
- 2) If federal or state laws or rules are modified or interpreted in a way that the services are no longer allowable or appropriate for purchase under this Contract or are no longer eligible for the funding proposed for payments authorized by this Contract.
- 3) If any license, permit, or certificate required by law or rule, or by the terms of this Contract, is for any reason denied, revoked, suspended, or not renewed.

Termination of this Contract under this subsection is without prejudice to any obligations or liabilities of either party already accrued prior to termination.

Termination for Cause: NDPERS may terminate this Contract effective upon delivery of written notice to CONTRACTOR, or any later date stated in the notice:

- 1) If CONTRACTOR fails to provide services required by this Contract within the time specified or any extension agreed to by NDPERS; **or**
- 2) If CONTRACTOR fails to perform any of the other provisions of this Contract, or so fails to pursue the work as to endanger performance of this Contract in accordance with its terms.

The rights and remedies of NDPERS provided in this subsection are not exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

- 6) **EMPLOYMENT STATUS:** The CONTRACTOR acknowledges that any services performed in connection with the CONTRACTOR's duties and obligations, as created and provided for in this agreement, are performed in the capacity of an independent CONTRACTOR. At no time during the performing of services as required by this contract will the CONTRACTOR be considered an employee of the State of North Dakota.
- 7) **ASSIGNMENT AND SUBCONTRACTS:** CONTRACTOR may not assign or otherwise transfer or delegate any right or duty without STATE'S express written consent. However, CONTRACTOR may enter into subcontracts provided that any subcontract acknowledges the binding nature of this contract and incorporates this contract, including any attachments. CONTRACTOR is solely responsible for the performance of any subcontractor. CONTRACTOR does not have authority to contract for or incur obligations on behalf of NDPERS.
- 8) **ACCESS TO RECORDS AND CONFIDENTIALITY:**
The parties agree that all participation by PERS members and their dependents in programs administered by PERS is confidential under North Dakota law. CONTRACTOR may request and PERS shall provide directly to CONTRACTOR upon such request, confidential information necessary for CONTRACTOR to provide the services described in the **SCOPE OF SERVICE** section. CONTRACTOR shall keep confidential all PERS information obtained in the course of delivering services. Failure of CONTRACTOR to maintain the confidentiality of such information may be considered a material breach of the contract and may constitute the basis for additional civil and criminal penalties under North Dakota law. CONTRACTOR shall not disclose any individual employee or dependent information without the prior written consent of the employee or family member. CONTRACTOR has exclusive control over the direction and guidance of the persons rendering services under this Agreement. Upon termination of this Agreement, for any reason, CONTRACTOR shall return or destroy all confidential information received from PERS, or created or received by CONTRACTOR on behalf of PERS. This provision applies to confidential information that may be in the possession of subcontractors or agents of CONTRACTOR. CONTRACTOR may retain archival copies in accordance with its record retention policies and procedures (i) with respect to

backup media for which selective deletion of files or data is not feasible and (ii) in order to enable it to comply with its professional standards requirements and substantiate its work in the event of a dispute; provided further that any such archival copies shall continue to be subject to the confidentiality obligations under this Agreement.

CONTRACTOR shall not use or disclose any information it receives from NDPERS under this Agreement that NDPERS has previously identified as confidential or exempt from mandatory public disclosure except as necessary to carry out the purposes of this Agreement or as authorized in advance by NDPERS. NDPERS shall not disclose any information it receives from CONTRACTOR that CONTRACTOR has previously identified as confidential and that NDPERS determines in its sole discretion is protected from mandatory public disclosure under a specific exception to the North Dakota public records law, N.D.C.C. ch. 44-04. The duty of NDPERS and CONTRACTOR to maintain confidentiality of information under this section continues beyond the term of this Agreement.

CONTRACTOR understands that, except for disclosures prohibited in this contract, NDPERS must disclose to the public upon request any records it receives from CONTRACTOR. CONTRACTOR further understands that any records that are obtained or generated by CONTRACTOR under this contract, except for records that are confidential under this contract, may, under certain circumstances, be open to the public upon request under the North Dakota open records law. CONTRACTOR agrees to contact NDPERS immediately upon receiving a request for information under the open records law and to comply with NDPERS's instructions on how to respond to the request.

- 9) **OWNERSHIP OF WORK PRODUCT:** All work product delivered to NDPERS or created for and purchased by NDPERS under this Contract belong to NDPERS and must be immediately delivered to NDPERS at the request of NDPERS upon termination of this Contract.
- 10) **APPLICABLE LAW AND VENUE:** This agreement shall be governed by and construed in accordance with the laws of the State of North Dakota. Any action to enforce this contract must be adjudicated exclusively in the State District Court of Burleigh County, North Dakota. Each party consents to the exclusive jurisdiction of such court and waives any claim of lack of jurisdiction or forum non conveniens.
- 11) **MERGER AND MODIFICATION:** This contract shall constitute the entire agreement between the parties. In the event of any inconsistency or conflict among the documents making up this agreement, the documents must control in this order of precedence: First – the terms of this Contract, as may be amended, and Second - the letter dated September 16, 2014 and attached hereto as Exhibit A. No waiver, consent, modification or change of terms of this agreement shall bind either party unless in writing and signed by both parties. Such waiver, consent, modification or change, if made, shall be effective only in the specific instances and for the specific purpose given. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this agreement.

- 12) **INDEMNITY:** NDPERS and CONTRACTOR each agrees to assume its own liability for any and all claims of any nature including all costs, expenses and attorneys' fees which may in any manner result from or arise out of this agreement.
- 13) **INSURANCE:** CONTRACTOR shall secure and keep in force during the term of this agreement, from insurance companies, government self-insurance pools or government self-retention funds, the following insurance coverages:
- 1) Commercial general liability, including premises or operations, contractual, and products or completed operations coverages (if applicable), with minimum liability limits of \$250,000 per person and \$1,000,000 per occurrence.
 - 2) Professional errors and omissions with minimum liability limit of \$1,000,000 per occurrence and in the aggregate, CONTRACTOR shall continuously maintain such coverage during the contract period and for three years thereafter. In the event of a change or cancellation of coverage, CONTRACTOR shall purchase an extended reporting period to meet the time periods required in this section.
 - 3) Automobile liability, including Owned (if any), Hired, and Non-Owned automobiles, with minimum liability limits of \$250,000 per person and \$500,000 per occurrence.
 - 4) Workers compensation coverage meeting all statutory requirements.

The insurance coverages listed above must meet the following additional requirements:

- 1) Any deductible or self-insured retention amount or other similar obligation under the policies shall be the sole responsibility of the CONTRACTOR.
 - 2) This insurance may be in policy or policies of insurance, primary and excess, including the so-called umbrella or catastrophe form and must be placed with insurers rated "A-" or better by A.M. Best Company, Inc., provided any excess policy follows form for coverage. Less than an "A-" rating must be approved by the State. The policies shall be in form and terms approved by the State.
 - 3) CONTRACTOR shall provide at least 30 day notice of any cancellation or material change to the policies or endorsements.
 - 4) Upon NDPERS's written request, the CONTRACTOR shall furnish a certificate of insurance to the undersigned State representative prior to commencement of this agreement.
 - 5) Failure to provide insurance as required in this agreement is a material breach of contract entitling NDPERS to terminate this agreement immediately.
- 14) **SEVERABILITY:** If any term in this contract is declared by a court having jurisdiction to be illegal or unenforceable, the validity of the remaining terms must not be affected, and, if possible, the rights and obligations of the parties are to be construed and enforced as if the contract did not contain that term.
- 15) **INTERNAL USE:** NDPERS agrees that all services and deliverables shall be solely for NDPERS' purposes and internal use, and are not intended to be, and may not be relied upon by any person or entity other than NDPERS, or the State of North Dakota in connection with the Services.

- 16) **INDEPENDENT ENTITY:** CONTRACTOR is an independent entity under this contract and is not a State employee for any purpose, including the application of the Social Security Act, the Fair Labor Standards Act, the Federal Insurance Contribution Act, the North Dakota Unemployment Compensation Law and the North Dakota Workforce Safety and Insurance Act. CONTRACTOR retains sole and absolute discretion in the manner and means of carrying out CONTRACTOR'S activities and responsibilities under this contract, except to the extent specified in this contract. NDPERS acknowledges that CONTRACTOR is not a fiduciary.
- 17) **NDPERS RESPONSIBILITIES:** NDPERS shall cooperate with the CONTRACTOR hereunder, including, without limitation, providing the CONTRACTOR with reasonable facilities and timely access to data, information and personnel of NDPERS. NDPERS shall be responsible for the performance of its personnel and agents and for the accuracy and completeness of data and information provided to the CONTRACTOR for purposes of the performance of the Services. NDPERS acknowledges and agrees that the CONTRACTOR's performance is dependent upon the timely and effective satisfaction of NDPERS's responsibilities hereunder and timely decisions and approvals of NDPERS in connection with the Services. The CONTRACTOR shall be entitled to rely on all decisions and approvals of NDPERS.
- 18) **FORCE MAJEURE:** Neither party shall be held responsible for delay or default caused by fire, flood, riot, acts of God or war if the event is beyond the party's reasonable control and the affected party gives notice to the other party immediately upon occurrence of the event causing the delay or default or that is reasonably expected to cause a delay or default.
- 19) **APPROVAL OF DELIVERABLES:** Deliverables shall be deemed accepted by NDPERS if not rejected, in writing, within ninety (90) days of delivery.
- 20) **NOTICE:** All notices or other communications required under this contract must be given by registered or certified mail and are complete on the date mailed when addressed to the parties at the following addresses:

**Sharon Schiermeister
400 East Broadway, Suite 505
PO Box 1657
Bismarck, ND 58502-1657**

Notice provided under this provision does not meet the notice requirements for monetary claims against the State found at N.D.C.C. § 32-12.2-04.

- 21) **SPOLIATION – NOTICE OF POTENTIAL CLAIMS:** CONTRACTOR and NDPERS shall promptly notify one another of all potential claims that arise or result from this contract. CONTRACTOR shall also take all reasonable steps to preserve all physical evidence and information that may be relevant to the circumstances surrounding a potential claim, while maintaining public safety, and grants to NDPERS the opportunity to review and inspect the evidence, including the scene of an accident.

- 22) **NONDISCRIMINATION AND COMPLIANCE WITH LAWS:** CONTRACTOR agrees to comply with all laws, rules, and policies, including those relating to nondiscrimination, accessibility and civil rights. CONTRACTOR agrees to timely file all required reports, make required payroll deductions, and timely pay all taxes and premiums owed, including sales and use taxes and unemployment compensation and workers' compensation premiums. CONTRACTOR shall have and keep current at all times during the term of this contract all licenses and permits required by law.
- 23) **STATE AUDIT:** All records, regardless of physical form, and the accounting practices and procedures of CONTRACTOR relevant to this contract are subject to examination by the North Dakota State Auditor, the Auditor's designee, or Federal auditors to the extent permitted under applicable law. CONTRACTOR shall maintain all such records for at least three years following completion of this contract and be able to provide them at any reasonable time. NDPERS, State Auditor, or Auditor's designee shall provide reasonable notice to CONTRACTOR.
- 24) **EFFECTIVENESS OF CONTRACT:** This Contract is not effective until fully executed by both parties.

NDPERS:

CONTRACTOR:

Sparb Collins, Executive Director
ND Public Employees Retirement System

Signature

Printed Name

Cost Proposal

We are requesting that you price this project on a fixed fee basis for efforts requested in this RFP.

THE COST PROPOSAL SHALL BE UNDER SEPARATE COVER AND NOT PART OF THE RESPONSES TO THE OTHER INFORMATION REQUESTS. PLEASE PROVIDE AN ELECTRONIC COPY OF THE COST PROPOSAL.

Expenses for travel, lodging, meals and other travel related out-of-pocket will be reimbursed on an incurred basis if the Executive Director of NDPERS has given prior approval for NDPERS related efforts. PERS is under no obligation to reimburse the consultant if no approval was given.

FIXED FEE:

Proposed efforts in RFP:

Fixed Fee

\$ _____

Estimated Hours of service provided

Estimated Expenses (pursuant to 6.7):

Proposed expenses in RFP:

Expenses

\$ _____

Detailed description of the total estimated expenses based upon the proposed recruitment strategy.