PUBLIC EMPLOYEES RETIREMENT SYSTEM MAIN SYSTEM FUNDING HISTORY AND OPTIONS

This memorandum provides information regarding the North Dakota Public Employees Retirement System (PERS) main system defined benefit retirement plan.

ORIGINAL MAIN SYSTEM DEFINED CONTRIBUTION PLAN

In Senate Bill No. 154 (1965), the Legislative Assembly created PERS, effective July 1, 1966, as a defined contribution plan. In Senate Bill No. 2068 (1977), the Legislative Assembly converted the main system retirement plan to a defined benefit plan.

MAIN SYSTEM DEFINED BENEFIT PLAN

The PERS main system defined benefit plan is funded from employer contributions, employee contributions, and investment earnings. Contributions are calculated based on a percentage of gross pay. From 1977 through 1989, the employer contribution was 5.12 percent of state employee salaries and the employee contribution was 4 percent. In lieu of state employee salary increases in 1983 and 1984, the state began to pay the 4 percent employee contribution. In 1989, the employer contribution was reduced by 1 percent and reallocated for a retiree health benefit credit. Since then, the employer and employee contributions have each increased by 3 percent as shown below.

1989 Through December 31, 2011		Effective January 1, 2012		Effective January 1, 2013		Effective January 1, 2014	
Employer	Employee	Employer	Employee	Employer	Employee	Employer	Employee
4.12%	4.00%[1]	5.12%	5.00%[1]	6.12%	6.00%[1]	7.12%	7.00%[1]

[1]The state pays 4 percent of the employee share of retirement contributions.

Benefit Levels and Recent Changes in Benefit Calculations

Members of the main system retirement plan are eligible for a normal service retirement benefit at age 65. For employees hired prior to January 1, 2016, employees are also eligible for retirement when age plus years of service is equal to 85 (commonly known as the "Rule of 85"). For employees hired on or after January 1, 2016, employees are eligible for retirement when age plus years of service is equal to 90 (commonly known as the "Rule of 90").

Retirement benefits under the defined benefit plan are calculated using the following mathematical formula provided in North Dakota Century Code Section 54-52-17(4).

Final average salary[1] x benefit multiplier[2] x years of service credit[3] = monthly single life retirement benefit.

[1]For employees who retired prior to August 1, 2010, the final average salary was the average of an employee's highest salaries in 36 of the last 120 months worked. For employees who terminate employment on or after August 1, 2010, but before January 1, 2020, it is the average of the employee's highest salaries in 36 of the last 180 months worked. For employees who terminate employment on or after January 1, 2020, it is the average of the employee's highest three 12 consecutive month periods of the last 180 months worked.

[2]The benefit multiplier is the rate at which benefits are earned. For defined benefit members enrolled before January 1, 2020, the benefit multiplier is 2 percent. For members enrolled after December 31, 2019, the benefit multiplier is 1.75 percent.

[3]The service credit is the amount of public service an employee has accumulated under PERS for retirement purposes.

The following is a summary of benefit changes approved by the Legislative Assembly since 1977:

Year	Benefit Multiplier	Change in Retirement Rule Levels
July 1977	1.04%	
July 1983	1.20%	
July 1985	1.30%	Rule of 90 established as an alternative for retirement eligibility
July 1987	1.50%	
July 1989	1.65%	
July 1991	1.69%	
August 1993	1.725%	Rule of 90 changed to Rule of 88
January 1994	1.74%	
August 1997	1.77%	Rule of 88 changed to Rule of 85
August 1999	1.89%	
August 2001	2.00%	
January 2016	2.00%	Rule of 85 changed to Rule of 90 for employees hired after December 31, 2015
January 2020	1.75%	Benefit multiplier of 1.75 percent for members enrolled after December 31, 2019, but remains 2 percent for members enrolled prior to January 1, 2020

Similar adjustments were made to the benefit calculations of members who retired prior to the above changes being made. Benefits were increased in amounts that equaled the benefit multiplier changes. In addition, retirees received a 13th check in 2006 and 2008. In 2006 the 13th check was equal to one-half of the retiree's normal monthly check and in 2008 the 13th check was equal to three-fourths of the retiree's normal monthly check.

Funded Ratio

The actuarial funded ratio is the percentage of the retirement fund's actuarial value of assets to its actuarial accrued liabilities. The actuarial value of assets is determined by spreading market appreciation or depreciation over 5 years. This procedure results in recognition of all changes in market value over 5 years.

The schedule below shows the actuarial assets and liabilities of the main system defined benefit plan since 2000.

Fiscal Year	Actuarial Assets	Actuarial Liabilities	Actuarial Surplus or (Unfunded Liability)	Actuarial Funded Ratio
2000	$1,009,744,796	$879,189,877	$130,554,919	114.8%
2001	$1,096,115,648	$993,851,809	$102,263,839	110.3%
2002	$1,129,697,099	$1,087,003,336	$42,693,763	103.9%
2003	$1,145,284,302	$1,170,477,887	($25,193,585)	97.8%
2004	$1,172,258,036	$1,250,849,240	($78,591,204)	93.7%
2005	$1,210,287,848	$1,333,491,341	($123,203,493)	90.8%
2006	$1,286,478,642	$1,450,113,412	($163,634,770)	88.7%
2007	$1,470,367,098	$1,575,666,628	($105,299,530)	93.3%
2008	$1,571,159,912	$1,700,171,588	($129,011,676)	92.4%
2009	$1,577,552,012	$1,861,032,305	($283,480,293)	84.8%
2010	$1,576,794,397	$2,156,560,553	($579,766,156)	73.1%
2011	$1,603,718,656	$2,284,199,019	($680,480,363)	70.2%
2012	$1,579,933,179	$2,442,299,210	($862,366,031)	64.7%
2013	$1,632,915,720	$2,650,525,018	($1,017,609,298)	61.6%
2014	$1,837,902,845	$2,866,511,290	($1,028,608,445)	64.1%
2015	$2,027,476,214	$2,976,071,808	($948,595,594)	68.1%
2016	$2,180,748,616	$3,299,381,100	($1,118,632,484)	66.1%
2017	$2,529,631,008	$3,618,083,973	($1,088,452,965)	69.9%
2018	$2,752,053,305	$3,841,701,179	($1,089,647,874)	71.6%
2019	$2,949,967,049	$4,136,252,987	($1,186,285,938)	71.3%

SELECT STATE FUNDS

This section includes information regarding state funds the Legislative Assembly may consider to transfer funding to the PERS retirement fund to reduce the main system unfunded liability.

General Fund

The general fund is the chief operating fund of the state. Revenue deposited in the general fund includes money collected from sales and use tax, motor vehicle excise tax, individual and corporate income taxes, oil and gas taxes, coal conversion tax, insurance premium tax, departmental collections, and other sources. The Legislative Assembly appropriates funding from the general fund to certain state agencies for the operation of each agency and to provide services to citizens of North Dakota.

The 2019 legislative revenue forecast included estimated general fund revenue, including the beginning balance, tax and fee revenues, and transfers, of $4,887.96 million for the 2019-21 biennium. The 2019 Legislative Assembly appropriated $4,843.56 million to state agencies for the 2019-21 biennium, resulting in an estimated general fund balance of $44.40 million on June 30, 2021.

If actual revenue collections exceed forecasted amounts, the ending general fund balance could be greater than $44.40 million at the end of the 2019-21 biennium.

Budget Stabilization Fund

In House Bill No. 1596 (1987), the Legislative Assembly created Section 54-27.2-01, which established the budget stabilization fund. The section requires any amount in the general fund at the end of a biennium in excess of $65 million must be transferred to the budget stabilization fund, except that the balance in the budget stabilization fund may not exceed 15 percent of the general fund budget approved by the most recently adjourned Legislative Assembly. The budget stabilization fund is used to offset general fund revenue shortfalls if the Governor orders budget allotments.

Based on the general fund appropriations of $4,843.56 million approved by the 2019 Legislative Assembly, the 15 percent maximum budget stabilization fund balance is $726.53 million for the 2019-21 biennium.

Revenue deposited in the budget stabilization fund includes investment income, oil and gas tax collections, and transfers from the general fund. The 2019 Legislative Assembly estimated the budget stabilization fund balance would be $483.33 million at the end of the 2019-21 biennium. See Appendix A for an analysis of the budget stabilization fund for the 2017-19 and 2019-21 bienniums.

As of August 31, 2019, the Office of Management and Budget reported the balance of the budget stabilization fund was $659.45 million and anticipates the budget stabilization fund will reach its statutory maximum balance of $726.53 million due to actual revenue collections exceeding forecasted amounts.

Legacy Fund

In 2010, the voters of North Dakota approved a constitutional amendment to create the legacy fund (Section 26 of Article X of the Constitution of North Dakota). Pursuant to the measure, 30 percent of oil and gas gross production and oil extraction taxes are deposited in the legacy fund.

The measure restricted the expenditure of principal and earnings until after June 30, 2017. Any expenditure of principal requires a vote of at least two-thirds of the members elected to each house of the Legislative Assembly, and the expenditure of principal may not exceed 15 percent of the principal balance of the legacy fund during a biennium. The Legislative Assembly may transfer funds from any source to the legacy fund, which become part of the principal of the fund.

The State Investment Board is responsible for investing the principal of the legacy fund. Investment earnings accruing after June 30, 2017, are transferred to the general fund at the end of each biennium. Section 21-10-12 provides a definition for the earnings of the legacy fund. The earnings include interest, dividends, and realized gains and losses, but exclude unrealized gains and losses.

During the budgeting process for the 2017-19 biennium, the 2017 Legislative Assembly included $200 million of estimated legacy fund earnings in the general fund revenue forecast. The 2019 Legislative Assembly revised the general fund revenue forecast for the 2017-19 biennium to include $300 million of estimated legacy fund earnings, an increase of $100 million compared to the original estimate. The 2017-19 biennium earnings of the legacy fund transferred to the general fund at the end of the biennium were $455.26 million.

For the 2019-21 biennium through September 2019, the investment earnings of the legacy fund that are eligible to be transferred to the general fund at the end of the biennium total $126.7 million, including $46.9 million related to June 2019 earnings and $79.8 million related to 2019-21 biennium earnings. As a part of the 2019 legislative revenue forecast, the Legislative Assembly budgeted for a transfer of $100 million from the legacy fund to the general fund at the end of the 2019-21 biennium.

The 2019 Legislative Assembly estimated the legacy fund balance would be $7.15 billion on June 30, 2021. See Appendix B for an analysis of the legacy fund for the 2017-19 and 2019-21 bienniums.

The balance of the legacy fund as of September 30, 2019, was $6.36 billion.

Strategic Investment and Improvements Fund

In House Bill No. 1451 (2011), the Legislative Assembly created Section 15-08.1-08 which created the strategic investment and improvements fund. Revenue deposited in the fund is derived from the sale, lease, and management of mineral interests acquired by the Board of University and School Lands and oil and gas tax revenue allocations.

Allowable expenditures of the strategic investment and improvements fund include one-time expenditures relating to improving state infrastructure or for initiatives to improve the efficiency and effectiveness of state government. Funding in strategic investment and improvements fund may be appropriated by the Legislative Assembly, but only to the extent the money is estimated to be available at the beginning of the biennium in which the appropriations are authorized.

The 2019 Legislative Assembly estimated the unobligated balance of the strategic investment and improvements fund would be $706.29 million at the end of the 2019-21 biennium. See Appendix C for an analysis of the strategic investment and improvements fund for the 2017-19 and 2019-21 bienniums.

POTENTIAL OPTIONS TO REDUCE THE MAIN SYSTEM UNFUNDED LIABILITY

The following are proposed options to reduce the main system unfunded liability and increase the main system defined benefit plan funded radio to 100 percent:

1. Provide a one-time transfer from other funds to the PERS retirement fund.
2. Create a new "retirement stabilization fund" to be included in the oil and gas tax revenue allocation formula until the main system defined benefit plan is 100 percent funded. See Appendix D for the current oil and gas tax revenue allocation formula.
3. Increase employer and employee contributions to the main system retirement plan.

One-Time Transfer Option

The following are estimated effects of providing a one-time transfer to the PERS retirement fund to reduce the main system unfunded liability:

Transfer Amount	Estimated Time to Become 100 Percent Funded	
	Bienniums	Years
$50 million	22	44
$75 million	20	39
$100 million	18	35
$125 million	16	32
$150 million	15	29
$200 million	13	25
$250 million	11	22
$300 million	10	20
$350 million	9	17
$400 million	8	16

"Retirement Stabilization Fund" Option

The following are estimated effects of providing ongoing transfers to the PERS retirement fund each biennium to reduce the main system unfunded liability:

Biennial Transfer Amount	Estimated Time to Become 100 Percent Funded		Estimated Total State Funds Transferred
	Bienniums	Years	
$10 million	20	40	$200 million
$20 million	16	31	$320 million
$25 million	14	28	$350 million
$30 million	13	26	$390 million
$40 million	12	23	$480 million
$50 million	10	20	$500 million
$75 million	8	16	$600 million
$100 million	7	13	$700 million

Contribution Increase Option

The Legislative Assembly considered Senate Bill No. 2048 (2019) (Appendix E) but did not approve the bill. The bill would have increased the employer and employee retirement contributions by 1 percent, resulting in a total employer contribution of 8.12 percent and total employee contribution of 8 percent, of which 4 percent is paid by the state.

The fiscal note for the introduced bill (Appendix F) states if the increased contributions began in January 2020, the total state cost for the 2019-21 biennium would be $9 million, of which $3.9 million would be from the general fund and $5.1 million would be from other funds. The total state cost for the 2021-23 biennium would have been $12 million, of which $5.2 million would be from the general fund and $6.8 million would be from other funds. The cost to political subdivisions was estimated to be $7.8 million in the 2019-21 biennium and $10.3 million in the 2021-23 biennium.

An actuarial analysis of the introduced bill was conducted by Gabriel, Roeder, and Smith & Company Holdings, Inc., and presented to the Employee Benefits Programs Committee in October 2018 (Appendix G). The analysis stated the increased employer and employee contributions would result in the main system defined benefit plan becoming 100 percent funded in 2057, or 37 years after the January 2020 effective date.

Other Considerations

- The transfer calculations in this document are based on the current main system expected investment return of 7.5 percent, the current unfunded liability of $1.19 billion, and funds being transferred at the beginning of the biennium. The calculations do not consider potential changes in expected investment returns, the unfunded liability, the number of employees contributing to the main system, salaries of contributing employees, or contribution rates. Actuarial services would be needed for a complete analysis of these variables for the proposed options in this document.
- This document contains estimated effects of transferring funding to the PERS retirement fund and the estimated effects of separately increasing contributions to the main system plan. The document does not contain estimated effects of transferring funds while also increasing contributions. Actuarial services would be needed for a complete analysis of implementing one or a combination of these options.
- The current unfunded liability of the main system defined benefit plan is $1.19 billion. Of this amount, approximately 52 percent is the state responsibility and approximately 48 percent is the responsibility of participating political subdivisions. Any transfer of state funds to the PERS retirement fund to reduce the unfunded liability would also benefit participating political subdivisions.
- Transfers to the PERS retirement fund would include funding solely from state sources, while increases in employer and employee contributions would include funding from both state and nonstate sources, including federal funds received by state agencies and contributions from participating political subdivisions.

2019-21 Biennium Executive Recommendations

The 2019-21 biennium executive budget included a recommendation to transfer $265 million from the strategic investment and improvements fund to the PERS retirement fund. The executive budget also recommended increasing employer and employee retirement contributions by 1 percent, resulting in a total employer contribution of 8.12 percent and total employee contribution of 8 percent, of which 4 percent is paid by the state. The Governor estimated these changes would result in the main system defined benefit plan becoming 100 percent funded in approximately 18 years.

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